

**INEQUALITY IN DIGITAL PERSONAS -
e-portfolio curricula, cultural repertoires and social
media**

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*Thesis presented for
the degree of
Doctor of Philosophy
in the Department of Humanities,
Centre for Film and Media Studies,
February, 2018.*

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ACKNOWLEDGEMENTS

This thesis emerged as an accomplished dish from a primordial soup thanks to:

Professor Marion Walton identified the broth's potential and nurtured its lengthy bubbling with the choicest cooking ingredients and advice.

Professor Johannes Cronjé shone several lights on my original gumbo dish. With much shaking and stirring, he helped filter its rogue elements into a rich, but not-so-thick, consommé.

My wife, Bronwyn, and our son, Thomas, who allowed me to stir for many years...

Leon Buchner, the late John Cowan, my research participants and their educators furnished my fieldwork's lush broth.

The National Research Fund provided a grant that supported my field research.

I would like to thank the following research groups for their constructive feedback:

- CPUT's Technology in Education Postgraduate Research group;
- UCT's Centre for Innovation and Learning Technology;
- and UCT's South African Multimodality in Education research group.

Abstract

Digital and electronic learning portfolios (e-portfolios) are playing a growing role in supporting admission to tertiary study and employment by visual creatives. Despite the growing importance of digital portfolios, we know very little about how professionals or students use theirs. This thesis contributes to knowledge by describing how South African high school students curated varied e-portfolio styles while developing disciplinary personas as visual artists. The study documents the technological and material inequalities between these students at two schools in Cape Town. By contrast to many celebratory accounts of contemporary new media literacies, it provides cautionary case studies of how young people's privileged or marginalized circumstances shape their digital portfolios as well.

A four-year longitudinal action research project (2009-2013) enabled the recording and analysis of students' development as visual artists via e-portfolios at an independent (2009-2012) and a government school (2012-2013). Each school represented one of the two types of secondary schooling recognised by the South African government. All student e-portfolios were analysed along with producers' dissimilar contexts. Teachers often promoted highbrow cultural norms entrenched by white, English medium schooling. The predominance of such norms could disadvantage socially marginalized youths and those developing repertoires in creative industry, crafts or fan art.

Furthermore, major technological inequalities caused further exclusion. Differences in connectivity and infrastructure between the two research sites and individuals' home environments were apparent. While the project supported the development of new literacies, the intervention nonetheless inadvertently reproduced the symbolic advantages of privileged youths.

Important distinctions existed between participants' use of media technologies. Resource-intensive communications proved gatekeepers to under-resourced students and stopped them fully articulating their abilities in their e-portfolios. Non-connected students had the most limited exposure to developing a digital hexis while remediating artworks, presenting personas and benefiting from online affinity spaces.

By contrast, well-connected students created comprehensive showcases curating links to their productions in varied affinity groups. Male teens from affluent homes were better positioned to negotiate their classroom identities, as well as their entrepreneurial and other personas. Cultural capital acquired in their homes, such as media production skills, needed to resonate with the broader ethos of the school in its class and cultural dimensions. By contrast, certain creative industry, fan art and craft productions seemed precluded by assimilationist assumptions. At the same time, young women grappled with the risks and benefits of online visibility.

An important side effect of validating media produced outside school is that privileged teens may amplify their symbolic advantages by easily adding distinctive personas. Under-resourced students must contend with the dual challenges of media ecologies as gatekeepers and an exclusionary cultural environment. Black teens from working class homes were faced with many hidden infrastructural and cultural challenges that contributed to their individual achievements falling short of similarly motivated peers. Equitable digital portfolio education must address both infrastructural inequality and decolonisation.

Table 1 Software cited

Software name	Website location
Adobe suite*	https://www.adobe.com
Apple OS** and software suite*	https://www.apple.com
AutoDesk 3D Studio Max	https://www.autodesk.com/products/3ds-max/overview
Behance (owned by Adobe)	https://www.behance.net
Black Berry Messenger (BBM)	http://bbm.com/en
Blender	https://www.blender.org
Carbonmade	https://www.carbonmade.com
Chrome	https://www.google.com/chrome
Corel suite*	https://www.corel.com/en-eu
Delicious	https://del.icio.us/
DeviantArt	https://www.deviantart.com/
Diigo	https://www.diigo.com
Direct X (part of Microsoft's SDK)	https://www.microsoft.com/en-za/download/details.aspx?id=6812
Dropbox.com	https://www.dropbox.com
Facebook	https://www.facebook.com
Firefox	https://www.mozilla.org/en-US/firefox/new
Flickr	https://www.flickr.com
Final Cut Pro (owned by Apple)	https://www.apple.com/final-cut-pro
Google suite*	https://www.google.com
Internet Explorer (owned by Microsoft)	https://www.microsoft.com/en-za/download/internet-explorer.aspx
Instagram	https://www.instagram.com/?hl=en
Mahara	https://mahara.org
Microsoft OS and Office suite*	https://www.microsoft.com/en-za
MyFolio	https://myfolio.com
Opera	https://www.opera.com
Picassa (now Google Photos)	https://picasa.google.com
Photoshelter	https://www.photoshelter.com
Safari	https://www.apple.com/safari
society6	https://society6.com
SketchPad Pro	https://www.autodesk.com/products/sketchbook-pro/overview
Soundcloud	https://soundcloud.com
Twitter	https://twitter.com
Tumblr	https://www.tumblr.com
Vimeo	https://www.vimeo.com
YouTube	https://youtube.com
Wavescape	https://www.wavescape.co.za
We Heart It	https://weheartit.com
Wix	https://www.wix.com
Wordpress.com	https://wordpress.com

* The term suite is an umbrella term, since the website address provided users with more than one software service. For example, Adobe's website covered Adobe Photoshop and Illustrator. Where a different trademark was used, this site was listed separately, as in Behance. While this site became owned by Adobe, it was still available as a stand-alone software service.

** The acronym OS refers to operating system software. Both Apple's and Microsoft's were also linked to software suites. Where a different trademark to the suite is used, it was listed separately.

Keywords

stratification, capital, inequality, cultural repertoires, social semiotic spaces, habitus, capabilities, visual art, e-portfolio, infrastructure, digital hexis, templated self

Table 2 Search terms and relevant abbreviations used in final recent literature review search *

Keyword	Abbreviation in thesis
Macro-level	
new media literacies	
cultural reproduction; assimilation	
academic cultural capital; institutional cultural capital	
distinction; cultural omnivorousness; dissonance	
emerging cultural capital	
habitus; lifestyles; differentiating practices	
cultural repertoires: creative industry; fan art; craft; music	
leisure repertoires: sport; travel	
social origin: class; race; gender	
inequality; capability approach	
academic achievement; achievement shortfalls	
Micro-level	
Medias	
traditional analogue portfolio	
digital portfolio; online portfolio	
electronic learning portfolio	e-portfolio
creative appropriation	
Content production	
social semiotic spaces; affinity spaces	
digital hexis; dimensions of infrastructure	
digital curation	
multimodal design	
visual arts showcase e-portfolio	
online content creation; remediation	OCC
prosumption; produsage	
Self presentation	
templated self	
online identities; digital personas	
digital disciplined identity	
informal identities; “unofficial” identities	

* My thesis’ spelling is mostly in UK English, which is commonly used in South Africa.

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Chapter 1: Introduction

Despite the growing importance of digital portfolios for justifying creative work and study opportunities, little is known about their creative appropriation by arts students in secondary schools. Portfolios play an important role in the vocational aspirations of visual creatives (Baron, 2009) and have traditionally used by creatives to promote themselves and demonstrate their level of experience, skills and creativity using showcase examples (Pibernik, Dolic & Kanizaj, 2014). Physical portfolios have typically been used in job interviews, with the prospective employee providing verbal explanations of the portfolio pieces (Myers, 2013). For students wanting to study at Cape Town universities, physical portfolios have typically been used to justify access. However, digital portfolios are increasingly being used for evaluation. The submission of a digital portfolio is now mandatory for applying to some faculties. For example, the Michaelis School of Fine Arts (University of Cape Town, 2014) required prospective students to submit a CD containing ten copies of original artworks. Local tertiary education institutions have also increasingly prescribed e-portfolio curation as part of professional degree course work (Pallitt, Strydom & Ivala, 2015).

Anecdotal evidence in Cape Town's secondary schools suggests that visual arts students' are seldom taught to prepare digital portfolios. In response, my action research project (2009-2013) was a practical pathfinder that supported the creative appropriation (Sharpe & Beetham, 2010) of *Carbonmade* online portfolio software for e-portfolio curation by students. I conducted fieldwork at two secondary schools in Cape Town. Twenty nine students were taught to use *Carbonmade* for showcasing their best artworks and presenting their visual arts student identities.

The first research site is an independent secondary school for boys, where a class of 17 students created e-portfolios between 2010 and 2012. This elite school attracts students from affluent homes. It is one of the more exclusive (and expensive) institutions of its kind in the country, charging fees of R6000 (\$552) per month in 2012. By contrast, the government school was situated in an area demarcated 'coloured'² under apartheid's Group Areas Act. Only a minority of students lived in the immediate neighbourhood. Most students were from working class families who struggled to afford the school's monthly R1200 (\$110) fees in 2013 and the transport costs from poorer areas, such as Gugulethu and Mitchells Plain. This Arts and Culture Focus school was unusual in offering both visual arts and visual design as subjects.

¹ In South African English, a youth at secondary school is called a 'learner' (Oxford South African Concise Dictionary, 2010). A young adult at university is described as a 'student', while an older student is a 'mature student'. However, I use the common international term for secondary school 'students' to accommodate global readers.

² Under apartheid South Africa, the Population Registration Act (1950) specified that each South African should be issued an identity document based on his or her race, as either a 'White', 'Coloured' or 'Native', according to the act's specifications (Posel, 2001). The architects of apartheid recognized that such racial classifications were constructs, rather than scientific descriptions of real essences, and relied on "common sense" notions of racial difference. The term 'Coloured' refers to a phenotypically varied social group of highly diverse cultural and geographic origins (Adhikari, 2005). This group comprised descendants from slaves bought to the Cape from Malaysia and Indonesia, the indigenous Khoi and San populations and other black people who had been assimilated to Cape Colonial society by the late nineteenth century. Since they are also partly descended from European settlers, coloureds are popularly regarded as being of "mixed race". They were allocated an intermediate status, under "Whites" but above "Natives", within the racial hierarchy of apartheid.

In South Africa, each school represented one of the two types of secondary schooling (public [government] and private [independent]) that are recognised by the government under the South African Schools Act (SASA) of 1996 (Hofmeyr, 2008). Public schools are state-aided: the government covers the running costs of the school, and parents contribute to basics and extras in the form of school fees. Parents may vote on the level of school fees and poor parents are given exemption or reductions. There are many no-fee schools in low-income areas. In public schools which may charge fees, the fees vary considerably based on a combination of factors that range from class size to the quality of teaching offered. Private schools may be established independent of the state in terms of the constitution. State subsidies to independent schools are permitted, but not guaranteed. Consequently, independent school fees are generally much higher than public schools.

Research questions

My research contributes to the research literature on e-portfolios by exploring these teenagers' e-portfolio styles and how these drew on different resources. Two questions drove the study:

- What digital self-presentation and organisation choices do visual arts students make in their e-portfolios?
- How do visual arts e-portfolios and visual culture repertoires relate to individual habitus and spaces of production?

Originality and value of the research

Digital portfolios are increasingly being used in formal assessment, to justify access to tertiary education and for securing work opportunities. Portfolios are also increasingly used in the pervasive individual branding associated with platforms such as Instagram, Twitter and Facebook. There is little research that has contextualised teenagers' remediation of digital personas via e-portfolio styles. My study helps close research gaps concerning Cape Town students' visual arts e-portfolio curations and teenagers' disciplinary versus informal personas.

Most of the research supporting e-portfolio use has taken place in the tertiary or professional education environments of the Global North. Research in well-resourced contexts shows many benefits of e-portfolio use (Owen, 2009). For students, benefits may include: improved focus, creativity, design, planning, self-direction, communication, motivation and organisation skills (Brown, 2002; Bull, Montgomery, Overton & Kimball, 1999; Campbell and Hauge, 2006; Cignetti, Melenzyer, Nettles & Wyman, 2001). The opportunity to develop reflective skills through the use of e-portfolios (Meisels & Steele, 1991; Barrett & Gibson, 2002; Fahey, Lawrence & Paratore, 2007; Hicks, Russo, Autrey, Gardner, Kabodian & Edington, 2007) may afford an enhanced sense of empowerment and awareness of personal attributes (Darling, 2001; Young, 2002). Encouraging reflection may also help job-seeking students to better plan for the future (British Higher Education Authority, 2008). Visual arts students may benefit from reflecting on the opportunities that their e-portfolio curations as socially networked identities might support. This may help young people to explore, critique and challenge normative roles in self-representation (Sweeny, 2009). These can include students' performance of gender stereotypes (Kapidzic & Herring, 2011) and the legal identities that social networks are geared for advertising to (Castro, 2014). E-portfolios may also be beneficial in offering aspirant visual artists the opportunity to be recognised as embodying the values of a singular artist in an art world (Hansson, 2015), to seek a better fit in others (Hansson, 2010) or to become increasingly engaged with other social and academic communities (Lalonde & Castro, 2015).

By contrast, my research took place in two very different local schools and involved students from wealthy to poor households. The study made a valuable contribution in documenting the practices by students from a broader range of economic backgrounds than those typically described in e-portfolio (Owen, 2009), multimodal (Jewitt, 2008) or new media research studies (Buckingham, 2009. Ito et al. 2010).

My research combined insights from the different, but complementary, lenses of symbolic interactionism, social semiotics, sociology and digital materialism to describe the inter-relationships between discipline, identities and infrastructure in young visual artists' e-portfolio styles. This combination may serve as a useful framework for future e-portfolio research.

This thesis also makes theoretical contributions to the lenses it used: It added to media studies by describing the creative appropriation of online portfolio software and young people's use of infrastructure spanning different medias. My exploration added to symbolic interactionism by describing students' contrasting digital self-presentation management over time. My study added to social semiotics via an original content analysis method for young people's e-portfolio styles. Describing how adolescent's digital personas mirrored social inequality contributed to cultural sociology, as did insights into how different forms of online content creation marked affluent teens' privileges.

An analysis of 29 teenagers' longitudinal choices enabled a theoretical contribution to closing a gap in the literature concerning the choices that visual arts students made in e-portfolio curation. Their varied e-portfolio styles drew on different creative repertoires, digital infrastructures and inspiration that reflected different dimensions of inequality. Such research is also consequential in highlighting the numerous challenges that marginalized students faced in curating e-portfolios and for suggesting ways that aspirant creatives might better be supported in e-portfolio syllabi and the creative appropriation of online software.

Background to my research project

My original motivation for conducting action research was informed by an educational technology discourse (Selwyn, 2010. Watters, 2014) supportive of increased technology use in classrooms (Kay & Goldberg, 1977. Papert, 1980, 1993) for equity. My research project was initially conceptualised to help address the digital disenfranchisement of visual arts students (Noakes, 2018b). Young people who develop new media literacies (Jenkins and Ito, 2015. Coiro, Knobel, Lankshear, and Leu, 2014. Gauntlett, 2011) arguably enjoy a form of digital enfranchisement through developing a level of visibility via personal presences in digital environments through which they exercise their voices. I was keen to support such literacies and whilst exploring research topics for this thesis, I volunteered to organise a digital exhibition of alumnae artworks at the high school I matriculated from in 1991. I worked with my former arts teacher, "Mr. Proudfoot"³, to find software services that might facilitate a group exhibition. Our online searches revealed many free services that could be used for digital curation and portfolio sharing. Such a wide range of services reflects how young people are growing up in a world in which the media they collect and make can be organised, displayed and re-presented time and again in ways that were not possible before (Potter, 2012, p. 181). In the visual arts, teaching the creative appropriation of e-portfolios provided an opportunity for

³ "Mr. Proudfoot", "Mrs. Zahra" and "Mr. Alec" are the respective pseudonyms for the independent school educator and the government school visual arts educator and visual design teacher. Pseudonyms are used to protect their privacy and that of their students and school.

enfranchising teens, who could use their own digital media for learning curatorship. Without such lessons, students might miss out on the contemporary opportunities that creative hobbyists and professionals take advantage of. These include using online portfolios for collating their images, distributing these in online exhibitions and connecting with online audiences.

By contrast to visual arts students' minimal opportunities to curate e-portfolios at school, South African educational policies provide a clear rationale for their teaching. This is aligned with the outcomes listed in the 'Curriculum and Assessment Policy Statement, Grades 10-12, visual arts' (2011). Teaching e-portfolio use also accords with DOE aims for educators to promote aspects of ICT proficiency: e-portfolio curation provides a rare opportunity for visual arts students to use ICT in class. This potentially improves their ICT proficiency, defined as the integration and application of cognitive and technical skills, which enable individuals to maximise the capabilities of technology (ICTL Panel, 2007, p. 18). The DOE has set the aim for all students to be *ICT proficient* in its White Paper on e-Education (2004). This goal is part of an ongoing strategic aim of proficiency in the use of technology (Department of Education South Africa, 2004) for educators and students. E-portfolio curation can assist visual arts students to develop aspects of *ICT proficiency*, which include accessing, managing, integrating, evaluating and creating information (ICT Literacy Panel, 2007). Such aspects were integral to the design of e-portfolio curricula.

Mr. Proudfoot agreed to teach these practices in a new e-portfolio syllabus that we would develop as part of my action research project. He identified that there was scope in the Department of Education's (DOE) visual arts syllabus to teach an e-portfolio curriculum. Its 'Guidelines For Practical Assessment Tasks' (2010b) offered scope for e-portfolios to be taught for helping students to better prepare for end-of-year exhibitions. Mr Proudfoot's e-portfolio curriculum taught his students to curate a digital disciplined identity that would be easy for online audiences of arts educators, invigilators and parents to accept and appreciate. Students were expected to create 'About' page profiles, which presented classroom identities as practitioners (and consumers) of the visual arts. Young people were taught to curate classroom projects and inspirations. In contrast to conformist students who matched such expectations, other pupils could choose to foreground informal personas. This reflected the reality of young people viewing themselves as authors of the knowledge that they want and need. They create the kinds of texts that meet their social, personal and affective needs (Kress, 2010). Young people could contest the digital disciplined identity by making as few of its choices as possible and foregrounding their interests outside visual culture. Teenagers could also hide being students and foreground informal visual creative repertoires.

Following the e-portfolio curriculum's successful launch at the independent school, I was given permission to launch a similar, but revised, curriculum at the government school. Mrs. Zahra, its visual arts teacher, chose not to teach e-portfolio curation, which necessitated that the e-portfolio curriculum was a shorter intervention limited to volunteers and taught by myself. Mrs. Zahra usually teaches up to 25 students in a studio with no computers. It took two years to teach e-portfolio lessons at the government school due to infrastructural issues. Mrs. Zahra booked her school's Khanya computer lab, where I taught ten lessons between 2011 and 2012. The delay proved a sobering lesson in the large inequalities that exist between an élite independent school and a relatively "well-resourced" government school.

ICT infrastructure as a marker of distinction in independent schools

South Africa's two officially recognised secondary schooling types belie the vast differences in infrastructure available to the seven types of schools⁴ in its educational system. The very different infrastructures available to the independent school's participants included its sophisticated Information Communication Technologies (ICT) facilities. ICTS, like specialised subjects, mark *class distinction* in schooling. Class distinction is a model of social stratification in which people are divided into hierarchical groups; typically upper, middle and low class. Independent schools were the first in South Africa to include the use of laptops by students. All the independent school's students had laptops and Wi-Fi was accessible throughout the school's grounds. Scanning equipment and digital cameras were readily available. The e-portfolio curriculum was compulsory and integrated into both its syllabus and visual arts department policy.

In the minority of government schools that have computer labs, available information technology (IT) resources are channelled to support literacy and numeracy drills in primary schools. In state schools, labs are often reserved for the use of the relatively small number of students who take IT courses (Prinsloo & Walton 2008; Walton 2007). At the government school, only IT students had regular use of the general computing labs, and consequently few pupils were proficient at using desktop computers. Although the government school had dedicated computer labs, problems with internet access led to a two-year delay before the e-portfolio project could be introduced. Its lessons were presented during visual arts class times, and continued during lunch break. E-portfolio curation was not compulsory, because the teacher believed that certain students would not do any of the extra work that my research project and lessons necessitated. Twelve students volunteered for optional classes in which they created e-portfolios under my guidance. They could use a loaned scanner, two cameras and the general computer lab's equipment during lessons.

Offering e-portfolio lessons to visual arts students can be seen as a new marker of privilege since few schools that offer visual arts can meet the requirements necessary for launching such curricula. Requirements include: lessons need to be given by visual arts educators with sufficient IT experience and interest. School management must buy-in. Students must receive appropriate technological-, contextual- and content resourcing support (Czerniewicz & Brown, 2005). Such requirements are readily supported by the high fees that private schools can charge, for example the nationwide schools of the JSE-listed Curro group (Fourie, 2017).

The persistence of racialised inequality in South Africa and its schools

Racial inequality remains a major concern in South Africa, more than two decades after the end of white minority rule. Huge levels of inequality persist in access to quality

⁴ South African schools are divided into five quintiles; the poorest are included in Quintile one and the least poor in Quintile five. Independent schools (receiving government funding) and fully private (without government funding) are excluded. The South African Treasury uses a national poverty table to first classify schools according to the poverty ranking of areas. A province then ranks its schools from Quintile one to five according to each's catchment area. Each national quintile contains 20% of students, with Quintile one representing the poorest and Quintile five the wealthiest 20% in government schools. However, provincial inequalities meant that these quintiles are unevenly distributed across provinces (Czerniewicz & Brown, 2014). Quintiles 1 to 3 pay no fees, 4 and 5 are fee paying, 6 are independent schools which may receive government funding and 7 are fully private (without government funding). While the introduction of no-fee paying schools has broadened access to education for 95% of children aged six to 15, it has had an unintended side effect of making poorer schools unable to compete with others that have an advantage in being able to raise their fees and provide better pay for attracting teachers (Financial Mail, 2013).

education (Spaull, 2015), types of economic participation and income (Statistics South Africa, 2012. UNDP, 2014). Such inequalities are structurally linked, since a dualistic education system feeds into and perpetuates an unequal labour market. There are still two clearly differentiable education systems that are attended by the rich or the poor (Spaull, 2015). One part of this system consists of well-functioning schools. These served white students under apartheid, but are now racially mixed. By comparison, the vast majority of schools serving black learners are dysfunctional and often do not impart the necessary numeracy (Spaul & Kotze, 2015) and literacy skills (Bloch, 2009). Very few white or Indian students attend these schools, to use the apartheid racial categories⁵ which formerly organised its racist education system.

In Cape Town, the class position of households are closely related to students' home suburbs, reflecting the legacy of spatial apartheid in this colonial megacity. Cape Town's demographic geography was re-sculpted and thoroughly racialized after the Group Areas Act (1995) from about 1960 to 1990. Before 1948, Cape Town was one of the more integrated areas of South Africa (Reed, 2016).

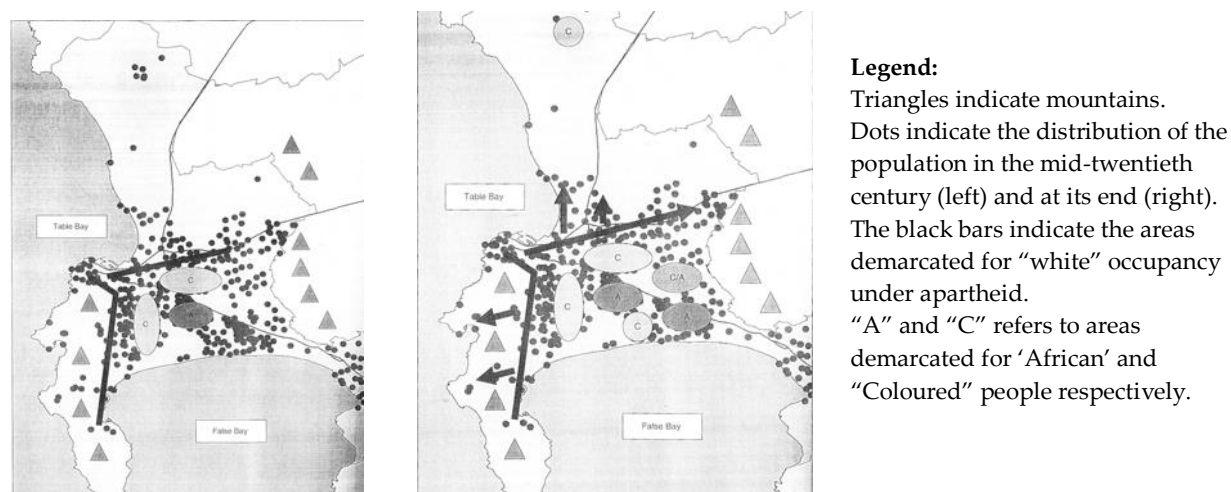


Figure 1. Spatial apartheid in Cape Town. Sourced from "Race, class, and inequality in the South African City," by Jeremy Seekings, 2011, in *The New Blackwell Companion to the City*, edited by G. Bridge & S. Watson), p. 534. Copyright 2011 by Wiley Online Library.

After taking power in 1948, the National Party implemented urban social engineering under apartheid (an Afrikaans word for 'separateness'), which defined statutory "racial" classifications to demarcate separate areas for "Bantu", "Coloured", "European" and "Indian" families to live (Seekings, 2011). Over 60 local communities were violently torn apart and over 150,000 black people were displaced from the city centre to peripheral townships. Cape Town has been described as a tale of three cities (Mertens, 1999), because of the huge differences in access to housing in affluent white areas, flat blocks in the sandy wastes of Mitchell's Plain and metal shacks in the townships. The suburbs where students lived remain strongly indicative of their parents' or guardians' class and still reflect a history of racial segregation (see Figure 1), albeit now class based.

Racial segregation was legally abolished in South Africa in 1996 through a new constitution and democratic political establishment. Nevertheless, major class-based

⁵ Given the history of racial classification under apartheid, participants in this study were not asked to racially label themselves. I felt similarly cautious about questioning students about their household income.

inequalities and income disparities have remained that are still strongly linked to race. The differences between the country's rich and poor have remained the highest in the world (Higgs, 2007). Objective poverty rates have endured at the highest amongst 'black Africans', who are very much poorer than 'Indians/Asians', who are poorer than 'Whites' (Leibbrandt, Woolard, Finn & Argent, 2010). Census 2011 data revealed that black citizens, who make up about 80 percent of the population of 55 million, earn on average a sixth of whites (Statistics South Africa, 2012).

Over the entire period of the study, low-quality education has continued to result in a poverty trap: Economic inequalities have strongly shaped students' formal educational opportunities. The systematic crisis in South African education (Bloch, 2009) is a persistent constraint on historically disadvantaged peoples (Badet & Sayed, 2014). Despite government devoting a large share of its budget to the public education system (National Treasury, 2016) it remains still largely racially divided. While access for many black students has improved, the quality of their education is poor (National Planning Commission, 2011). Access to quality education remains strongly linked to class and is elusive for the vast majority of black students. It is unaffordable to parents with low socio-economic status.

The education system has not been an engine of social mobility, but a two-tiered structure through which an unequal society is replicated (Spaull, 2015). Low-quality education has resulted in a poverty trap for most black students (Van Der Berg, Burger, Burger, Vos, du Rand, Gustaffson, Moses, Shephard, Spaull, & Taylor, 2011). Students that have attended well-functioning schools have tended to attain higher qualifications and dominate the highly-skilled, managerial end of the labour market. In stark contrast, poor education has contributed to unemployment or low- or semi-skilled jobs at best.

Participation in visual arts as a scarce privilege

To be enrolled in the visual arts subject is a privilege that few South African students currently enjoy. Less than one percent of them do it for matric (Department of Basic Education, 2013). Visual art and design subjects are seen as relative luxuries, requiring specialised staff and expensive infrastructure. In government schools, only 6,755 of 562, 112 Grade 12s studied visual art in 2013.

Historically, most township schools have not offered specialised arts or design-related subjects, while wealthier schools may offer both. In the Cape Town metropolis, as few as 26% of secondary schools offered art- or design- related subjects at a Senior Certificate level (Graan, 2005. Joffe & Newton, 2008). This included an attempt to broaden access to the visual arts by the Western Cape Educational Department (WCED), which established ten Arts and Culture Focus schools in 2007. They were intended to support cultural mobility by expanding access to students likely to have been excluded in the past (Walton & Donner, 2012).

The WCED's involvement reflected a resourcing challenge to schools in offering visual arts and/or visual design as a subject choice. Both require high levels of economic and institutional cultural capital: to offer either subject necessitates a history of resourcing support (including a suitably skilled educator and art equipment), plus infrastructural provision (such as studio space and drawing and display surfaces). Both are scarce (Noakes, Walton, Venter & Cronjé, 2014) and therefore serve to mark academic distinction (Bourdieu, 1984).

Although state and provincial initiatives have broadened access to art and design education to a small degree, harsh levels of inequality mean that students from lower income groups (typically blacks) often carry the extra burden of securing things others take for granted, like; food, lighting, paper and stationery, all being prerequisites for artistic participation (Pritchard & Vines, 2013). Amongst other groups, major inequities still divide even those relatively privileged youth who are able to attend those schools offering visual art and/or design. In particular, access to ICT infrastructures for digital and online media production are key markers of inequality. These serve as gatekeepers to participation (Hargittai & Walejko, 2008) in richly resourced, visually creative fields⁶.

In this educational context of cultural and financial exclusion, my thesis reports on an action research project (Lewin, 1946. Hearn, Tacchi, Foth & Lennie, 2009) which supported the teaching of e-portfolio curation at two very different Cape Town schools. These students were relatively privileged to have access to the visual arts and information technology as subjects (Noakes, Walton, Venter & Cronjé, 2013). Schools that offer these two subjects are typically located in the geographic centres of economic privilege, where in many ways they quietly continue the *modus operandi* of apartheid (Venter, 2016). One site of this study was an exclusive independent secondary school catering for young men, serving the economically privileged. In the South African context of marked economic and social inequalities, access to independent schooling is often an important marker of class privilege (Burawoy & von Holdt, 2012). By contrast, the other site of my study was a government-funded public school, which provided education that some working-class families could afford.

In South Africa's creative economy, low black participation in arts and design education has been linked to the under-representation of black professionals in the creative industry. Blacks have faced historic exclusion from visual creative subjects in secondary school, where until the 1980's arts education was provided for in previously 'whites-only' schools (Joffe & Newton 2008). Where arts programs were offered by segregated departments, such as the Department of Education and Training, the subject was under-resourced and curricula imitated white schools in promoting Western arts forms. The visual arts have since become part of the 'Arts and Culture' learning area, a compulsory component of formative education up to grade nine (HSRC AMERU et al. 2010, p.9). However, the majority of schools do not have trained teachers and facilities for providing quality visual arts education. Curriculum policy may include this subject as an elective specialism for grades ten to twelve, but visual arts education's provision at this level has continued to be largely confined to well-resourced, top-end schools. In 2014 relatively few government secondary school students studied visual arts for their school-leaving examinations (Noakes, Walton, Venter, Cronjé, 2014). In 2009 only fifty percent of enrolments accounted for black students (HSRC AMERU et al. 2010).

⁶ Each field can be understood as a structured space of positions, whose inter-relations are determined by the distribution of different kind of resources or capital (Bourdieu and Thompson, 1991). As part of Bourdieu's theories of cultural production and consumption, he developed field analysis to highlight the importance of understanding a field's logic, how this compares to other fields and how capital is exchanged between inter-penetrating fields. In curating e-portfolios, visual arts students' participation is influenced by the four key fields of power, education, commerce and prosumption.

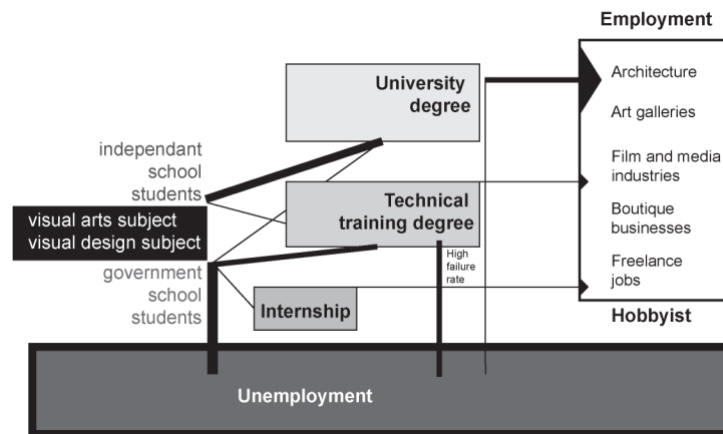


Figure 2. Inequalities in academic and vocational trajectories related to visual culture

As suggested by the diagram in Figure 2, unequal access to visual arts and design education in secondary schooling has contributed to blacks' lower levels of access and enrolment in tertiary art education. Young working class people who attended township schools without specialized teachers or the equipment needed for visual art continue to be under-represented in tertiary education and design industry alike (Sutherland 2004; Sauthoff & van Eeden 2010; Joffe & Newton 2008). As a result, working class students have had little chance of being accepted to pursue art and design courses, let alone to entry-level jobs in the creative industries (Booyens 2012; Joffe & Newton 2008). By contrast, the tiny minority of independent school students were far more likely to be taught visual art or graphic design. The much higher fees that independent school parents pay enabled specialized teachers to be employed for such subjects. Visually creative students at independent schools have been able to develop artistic portfolios at school that can be used for justifying access to tertiary studies in architecture, fine arts or design. By contrast, government school students would far more likely have used their portfolios for justifying access to technical degree training or applying for internships.

A decolonial critique of financial and cultural exclusion

The obstacles that many young people face in pursuing visual creative schooling resonate with the decolonial critique of financial and cultural exclusion in university education. From 2015, the decolonisation of universities became a common demand in South African student protests. These demonstrations were unprecedented in their scale and violence (Jansen, 2017). Protestors criticized public universities and the ruling African National Congress government's failure to address two major fault lines in education more than twenty years after apartheid. The first concerned the rising costs of tertiary education. Many prospective students from working class, unemployed and lower middle class households⁷ faced financial exclusion. The second related to black⁸ students and staff's sense of cultural alienation at historically white universities.

In response to these issues, #rhodesmustfall (RMF) protestors (Nyamjoh, 2016. Bosch, 2017) demanded symbolic reparation. In particular, they demanded that colonial and apartheid era symbols be removed and that transformation at universities be accelerated. Only modest gains in the four pillars of transformation; equity, democracy, efficiency and responsiveness had been made post-apartheid (Cloete et al. 2002). #feesmustfall

⁷ Students of the lower middle class, or 'missing middle', are from families that do not qualify for the government's National Student Financial Aid Scheme (NSFAS). Although their parents earn above R 120,000 a year, this is not enough to cover a household and student's fees. A university education typically costs on average between R 80,000 and R 100,000 a year (Jansen, 2017).

⁸

(FMF) activists demanded that free education be prioritised (Ndlovu, 2017). RMF and FMF merged into the most powerful student movement since anti-apartheid protests in the 1970's (Jansen, 2017). The movement's demands resonated with a broader decolonial turn in Africa (Ndlovu-Gatsheni, 2013) and foregrounds how decolonisation is key for tackling the negative legacies of colonialism (Maldonado-Torres, 2011). Long after administrative apartheid and direct colonialism ended, the colonial legacies linked to power, knowledge and being still strongly affect postcolonial citizens (Ndlovu-Gatsheni, 2013. Mulcahy, 2017).

For example, the knowledge system in South African education remains strongly shaped by Western, racially hierarchized, hetero-normative and Christian values (Ndlovu-Gatsheni, 2013). These inform what is considered "legitimate" cultural capital (Bourdieu & Passeron, 1977:2013), specifically highbrow European and American culture versus "illegitimate" forms of knowledge and practice. Such a distinction marginalizes and often excludes indigenous, black cultural repertoires (Soudien, 2007), such as local languages and crafts. By contrast, an inclusive conception of visual culture could address crafts and other forms of aesthetic culture in Cape Town. These could potentially accommodate Cape Town's working class, "township", migrant and gang cultures.

Up to the end of apartheid, arts-related education in South Africa developed along racial and ethnically separatist lines (Coombes, 2003, 2006. Mcgee, 2007). Post-apartheid, such education is not racially exclusive. Nevertheless, cultural exclusion remains a persistent problem as very few black students enter creative industries. In 2013, 99 percent of young South Africans received no secondary school training in the visual arts or design (Noakes, Walton, Venter & Cronjé, 2014). Consequently, very few black students have the opportunity to formally develop the arts portfolios typically required for justifying tertiary education in artistic domains. Keen students who lack access to these subjects at school leverage chance encounters and varied family, peer and other relationships to develop portfolios informally (Venter & Walton, 2015). Even with a portfolio, tertiary places to study visual creativity are highly competitive. Many students from middle class homes do not secure places despite privileged access to the necessary literacies (such as observational drawing).

Financially, students from poor households face the greatest obstacles when trying to develop their visual creative talents via the traditional academic route. These students depend on bursaries (such as NFAS, the National Student Financial Aid Scheme) or financial aid to access tertiary education. Such NSFAS support is particularly scarce for students in creative fields. After securing funds, access to university does not necessarily translate into such students pursuing the creative field they desired or simply graduating. There are high costs for students to practice in the creative industries, such as film, and these serve as a barrier to under-resourced students. Furthermore, of the 12 percent of black South Africans who entered public higher education, only seven percent completed their degrees (Scott, 2017) and formal certification thus remains a barrier in some areas.

The local talent pool available to visual creative industries reflects cultural reproduction. Middle-class students, who are mostly white, are over-represented. In particular, metropolitan male professionals from affluent backgrounds are over-represented in cultural domains that require formal, technical qualifications (Hadisi & Snowball, 2017), such as advertising, architecture and software systems. Black visual creatives from

working class⁹ backgrounds already face daunting obstacles to their education and employment in creative industry.

Involvement in the visual arts as a marker of middle class distinction

The involvement of young people in visually creative repertoires links to the broader social tastes and cultural preferences that Cape Town families, schools and media support. A recent research project into broad distinctions in Cape Town youths' cultural preferences (Schenk, 2015) confirmed that there is an inherent hierarchy in the perception of racialized forms of youth culture. These span consumption patterns, fandom, clothing styles, music tastes and even ways of talking and walking. For example, better-off respondents regardless of race to the survey in Cape Town generally had a preference for foreign (mostly American) idols and music than the other respondents who preferred South African starts and music. Such distinctions are largely in line with the class-centred analyses of taste and cultural preferences inspired by Bourdieu (1984). This inherent hierarchy in Cape Town teenagers' cultural preferences suggests that Bourdieu's theoretical framework remains helpful even in the contemporary South African context.

Relatively few people have personal connections with the field of visual arts, which makes it the most exclusive area of cultural practice (Bennett et al. 2009, p. 30). Visual art remains a strong field of classification of social position since core participation by better-off groups remains resilient. Despite fissures and cleavages across group boundaries, the highly-educated middle class and social élite are far more likely to visit art galleries and have views about the quality of art. These groups and their children are disproportionately likely to develop a knowledge and appreciation that serves to increase institutional cultural capital in the visual arts. Their command of "higher" forms of consecrated visual culture remains a token of distinction, which continues to function as an effective form of cultural capital.

The role of élite and educated middle classes as taste makers has implications for what is regarded as legitimate cultural capital. Their tastes shaped what educators taught in "their" visual arts syllabus and the informal cultural capital that students were expected to curate. The national syllabus is a culturally conservative space which mostly focused on modern development of Western fine arts movements and the drawing and painting practices of their Western 'masters'. Studio practice foregrounded the development of hand-rendered drawing and painting skills. A shared focus on this culturally exclusive visual culture was evidenced in the arts history and studio practices taught at both schools. Both foregrounded tastes for art gallery objects.

⁹ Despite the long history of Marxist analysis of (and in) South Africa, its local study of class remains in its infancy (Seekings, 2003). The density of the nation's social structure is very different from more developed, Northern economies where extensive stratification research has been done {such as Rose and Harrison (2014) on Europe, Savage et al. (2013) for the UK, Beeghley (2015) regarding the USA}. The key difference is the high levels of unemployment at SA's base, which result in the majority of working class households actually being in the richer half of the population. The poorer half comprised households that are dependent on; very-low paid workers, the country's social security grants system, remittances and/or pension payments. For simplicity, my research used a binary distinction; between students from 'working class' homes (the majority attending the government school) versus 'middle class' ones (combining the élite and established middle classes that mainly attend the independent school). The use of several categories (i.e. the seven main classes developed in the UK's Nuffield schema during the 1970s and redefined in Savage et al.'s new model (2013)) seemed to offer little benefit to my research analysis versus the complexity and effort needed to operationalize additional categories.

Teenagers negotiate emergent cultural capital

Teenagers tend to be engaged with *emerging cultural capital* (Savage et al. 2013, Prieur & Savage, 2013) outside school, rather than the highbrow culture foregrounded in the visual arts subject syllabus. The status markers of emergent cultural capital connect to practices in; information technology (internet and social networks), video games, sport, popular music and socializing. My research explores how such capital overlaps with the informal personas that teenagers shared. Rather than such emergent practices being “illegitimate”, as Bourdieu’s approach could suggest, such roles can comprise a new form of cultural boundary. For example, affluent students may mark their privileged status by sharing resource-intensive practices in visual creative domains not taught in the visual arts (such as animation and videography), as well as exclusive subject matter (for example, water sports) and inspirations (yachting).

Methodological implications

As described in Chapter Three, it was necessary to pool the strengths of select academic lenses to link students’ e-portfolio styles to their circumstances. The distinct, but interrelated, theoretical frameworks of cultural sociology (Bourdieu, 1984, 1986, 1996), symbolic interactionism (Goffman, 1959, 1963, 1974), social semiotics (Kress, 2010), media studies [(Ito et al. 2009, 2010), boyd (2007, 2014), Gauntlett (2007, 2011)], digital materialism (Manovich (1999, 2001, 2008) and infrastructure studies (Star & Ruhleder, 1996) were used to support a holistic and detailed research approach. This combination was necessary to avoid a common failing in the literature regarding new media’s appropriation and repurposing. Few existing studies in education have adequate theoretical frameworks guiding their discussion (Hamid, Waycott, Kurnia & Chang, 2010).

Why my research connects insights from cultural sociology to symbolic interactionism

Cultural sociology provided an overarching framework for a relational description of agents’ dispositions, practices and the social spaces they inhabit. Bourdieu’s theories of practice (1977, 1990, 1998) address the broad elements of social structure, focusing on how these relate to power and are inadvertently reproduced through everyday practices. His key concepts enable researchers to conceive of young people as individuals with unique histories who act in relation to a social environment that incentivizes, affords or limits certain practices (Davies, 2015). Bourdieusian theory provides a useful way of linking societal concerns, ideas and institutions with detailed examinations of everyday negotiations (Alanen, Brooker & Mayall, 2015).

My research project used this theory’s conceptual vocabulary to explore enablers and constraints in young people’s negotiation of disciplined and informal personas, relating both to specific and wider social arrangements. Each teenager’s practices as a socially and culturally situated agent were linked to their attendant capitals for participating in varied social semiotic spaces. These spanned four key spaces; school, home, digital information and the vocational. By remediating practices from these spaces, teenagers evidenced academic or emerging cultural capital.

Symbolic interactionism proved helpful for explaining young people’s digital self-presentations, which could negotiate the prescribed disciplinary and informal personas. Goffman’s work concerning identity performances and impression management strategies (1959, 1963) was used for describing such negotiations. Combining Goffman’s insights into identity performance with Bourdieu’s theories of practice supported an exploration into how student identities, the spaces they inhabit and their varied roles intersect at the nexus of structure and agency. Connecting these two lenses facilitated an

holistic view in my research, reducing the danger of one half of the structure/agency dualism being exercised over the other (Huot & Rudman, 2010).

Why my research sources ideas from social semiotics and digital materialism

Young people could also have conflicting orientations towards publishing e-portfolios and the meanings of presenting themselves to be visual artists. Students' different social backgrounds were likely to contribute to divergent views on the e-portfolio medium's value and the appropriate content to share in it. My research followed a social semiotic approach for exploring the meanings adolescents associated with their e-portfolio styles and how these related to each author's interests.

A multimodal approach (Jewitt & Kress, 2003. Jewitt, 2005) was used in my research to describe how the modal inter-relationships and density in young people's e-portfolio styles expressed their interests as sign-makers. The *modal density* of each student's e-portfolio style was closely tied to their motivation and access to digital infrastructure for e-portfolio curation. Students' multimodal texts can be dense in meaning, given that each mode adds its particular layer of complexity. According to a Multimodal (inter)action analysis approach (Norris, 2004, 2014), each students' e-portfolio had a particular level of modal complexity. The more intricately intertwined a webpage's multiple disembodied modes (such as image, text and layout), the higher the density. Dense modal combinations can afford a more complete expression of a student's habitus (Buchholz, 2014) and my research explored how low densities were linked to teenagers' dis-interest or difficulties in accessing appropriate infrastructure and digital cultural capital (Selwyn, 2004; Seale, 2013).

Students' e-portfolio styles as software users were also shaped by a software's options. Insights from digital materialism (Manovich, 1999, 2001, 2008) proved helpful for framing how online portfolio software enabled these choices as a semiotic resource. E-portfolio styles are also shaped by the degree of design and customization that software afforded and did not enable (van Leeuwen, 2008). Combining insights from social semiotics and digital materialism supported descriptions of how students' expression of varying interests were mediated by software.

The contextual insights which media studies and infrastructure studies add

Local media studies research provided the background to young Cape Town students' access and use of digital medias and the importance of teens' differential access to infrastructures in online content production. Local research ranges from mobile phone stories (Botha, Vosloo, Kuner & van den Berg, 2011. Vosloo, Walton & Deumert, 2009) to smartphone videos (Hassreiter, Walton & Marsden, 2009). It flags that digital divides remain closely linked to racial and class markers of economic disadvantage, plus gender inequality. American and British research (Ito et al. 2009, 2010. Buckingham, 2013. Jenkins et al. 2008. Gauntlett, 2007) provided examples of young people's creative productions with digital media. These resonated with my research participants' explorations of creative industry, crafts and fandom.

The emergent discipline of Infrastructure Studies (Bowker, Baker, Millerband & Ribes, 2010) was used to frame how young people's digital curations were influenced by particular dimensions of infrastructural resourcing in their schools. Differences at the government and independent schools were linked to patterns in their students' e-portfolio styles (see Chapter Four).

Constraints in templated identities and digitally disciplined personas

In my research, student's e-portfolio styles were likely to be strongly shaped by the creative appropriation of *Carbonmade* and the options for a templated self that its software afforded. The *templated self* (Case, 2011) is a self or identity that is produced through various participation architectures. A virtual or digital representation of self is developed by filling out a graphic user interface (GUI) with personal information. This may set identity constraints and the user's style of influence on other profiles. The template identity ranges from fixed spaces, such as *Facebook* and *Carbonmade*, to hand built sites' flexibility in which users can design a digital self in any conceivable way.

Students were taught to use *Carbonmade* to complete templated selves as visual artists and for curating related artworks. The combination of the *Carbonmade* templated self and classroom identities proved to be strong influences, which led my research to propose the concept of the *digital disciplined identity* (Noakes, 2019). This notion extends the strong shaping influence of the templated self into the identity templates that educational institutions afford their students. This reflects the education system's incredible interest in templating students as well as templating knowledge (Watters, 2014), as evidenced in graduation courses, disciplinary and other academic requirements.

In my research, students used *Carbonmade* software as a virtual-curator (Beardon & Worden, 1997) to design digital disciplined identities. They uploaded their descriptions, self-imagery and remediated artworks before re-organizing them. These choices are captured by *Carbonmade's* database and used when making rendering decisions to show each portfolio page in their viewer's web browser. Students' e-portfolio styles are constrained by the online portfolio choices afforded by *Carbonmade's* GUI being common to all users. This reflected Manovich's insight (2001) that multimedia objects are created from a database.

Research strategies

This research directly supported two educators with responding to the challenges of an increasingly mediated world (Buckingham, 2003, 2007) by teaching e-portfolio curation. *Carbonmade* software was first introduced at a site where its creative appropriation for e-portfolio curation was most likely to succeed. The visual arts head at this elite independent school was keen to learn about social media. After producing his own online portfolio and using social bookmarking, he successfully taught both to my research participants. Following this success, I modified the introductory curriculum and taught it to volunteers at a less well-resourced, government school. Being better resourced than many other state schools, it seemed more likely to successfully support e-portfolio teaching. This project overcame challenges in delivering curricula at both sites and to answer its enquiries collected evidence using 11 research instruments, ranging from screenshots of *Carbonmade's* GUI to interviews with students and educators (see Chapter Three).

Several authors (Jenkins, 2006. Leadbeater, 2007, Tapscott, 2009) from well-resourced contexts have suggested that young people's OCC gives them valuable opportunities for self-expression. According to their shared view (Schwarz, 2010), self-presentation and expression on digital platforms can help young people to rise above their circumstances as they develop disciplinary interests. By contrast, my aggregated content analysis revealed worrying patterns in students' achievements in e-portfolio styles for each site. Such patterns would be troubling if e-portfolios were used in competition for work or educational opportunities. I shifted my approach to Critical Action Research (Carr &

Kemmis, 2003), which validates and extends action research processes by combining critical theory with the action research paradigm (Given, 2008). My research contribution shifted to identifying how young people's digital identities manifested social power and assimilation.

Outline

This chapter presents my research questions and argues for the originality and value of this project. The background to the problem statement and the broader socio-economic context of the research are described. The methodological aspects are defined before the research strategies are addressed.

Chapter Two describes the rationale for combining the theoretical lenses of cultural theory, symbolic interactionism and social semiotics. It also describes why insights from digital materialism, media studies, infrastructure studies and Sen's capability approach proved helpful for contextualising young people's contrasting opportunities and achievements.

The CAR, observational and case study research methods are described in Chapter Three and are discussed in relation to their strengths and weaknesses. Three research innovations are introduced; a CAR project unique for its context (1), a longitudinal educational research project that spanned four years (2) and studying pupils from a wider range of economic backgrounds than those described in similar research studies (3). The background to the differences between the two research sites and Cape Town teenagers' circumstances are then described.

Chapter Four presents a content analysis, which identifies different patterns of students' e-portfolio achievements for the two sites. The wide variety of distinctive styles that young people developed at either site are explored through 12 students' case studies.

Chapter Five explores the different visual arts student personas that five student curated. It begins with a touchstone digital disciplined identity from the independent school. Case studies for two other private and two government school students follow to provide an overview of their contrasting styles, contexts and aims in the two sites. None of these five students foregrounded any informal visual creative personas.

Chapter Six features seven young people whose e-portfolios spotlighted their out-of-school identities. Case studies of three independent school students described how they foregrounded repertoires linked to concerted cultivation. By contrast, many of the five government school students negotiated identities in relation to the creative industries.

Chapter Seven addresses the four key dimensions of inequality my research identified and describes a few novel benefits of the e-portfolio syllabus. The research contributions to sociology, symbolic interactionism, social semiotics and digital materialism are then summarized. As a pathfinder project, several recommendations are made for future research.

Chapter 2: Literature Review

Introduction

This research project explores how young people curate legitimate and informal tastes in their e-portfolios and how the repertoires they shared draw on diverse resources. The research project's theoretical goal was to contextualise youth agency in relation to the structural inequalities that young people experience in Cape Town. This requires both attention to the micro-level as teens developed distinctive e-portfolio styles and to macro-level descriptions of the structural inequalities that influenced teenagers' lives. Class, race and gender could prove highly influential in the remediation of distinctive cultural repertoires and consumer lifestyles. It was thus necessary to look beyond the classroom and take a sociological view concerning how young Cape Town students' e-portfolio styles related to broader inequalities within the city and society in general. The concept of social space allowed my research to situate young people as belonging to specific families and schools, while also locating my participants in a wider South African society where more general struggles are taking place.

Chapter Two introduces the literature review process and research framework after providing a high-level overview of the project's focus. The similarities in visual arts education at two very different sites are situated within the broader social context of South African schooling. Varied forms of social stratification are described, which are linked to young peoples' unequal opportunities for expressing distinctive personas. To describe inequalities in digital personas, teenagers' practices were linked to the diverse spaces in which they were developing dispositions. An overview of research into participatory media and local participation follows. The chapter concludes by exploring how young people curate identities via media productions and who cultivate artistic digital personas online.

A broad literature review was required to relate young people's micro-agency in curating distinctive e-portfolio styles to their different circumstances. Insights from cultural and educational sociology (Bourdieu & Passeron, 1977. Bourdieu, 1986. Soudien, 2007. Burawoy & von Holdt, 2012) and the sociology of aesthetics (Bourdieu, 1984, 1987, 1993, 1996) helped frame the cultural reproduction of visual arts classroom identities. Concepts from research into social semiotics (Kress, 2010), symbolic interactionism (Goffman, 1959, 1963, 1969, 1974) and media studies [(Ito et al. 2009, 2010), boyd (2007, 2014), Gauntlett (2007, 2011)] were used to provide micro-level descriptions of Cape Town teenagers' negotiations of disciplined and informal digital personas. Young people's remediation of such personas could involve different digital information infrastructures, software (see Table 1) and other technologies. Their access to, and use of technology is explained using infrastructure studies (Star & Ruhleder, 1995) and digital materialism (Manovich, 1999, 2001, 2008).

In education, e-portfolios that only contain products and reflections about school-based learning are partial in that they only show a limited view of who students are, what they know and can do (Cambridge, Cambridge, Yancey and Blake, 2009). For an accurate picture of students' abilities, e-portfolios must provide scope for them to represent their

life-wide learning holistically, such as “unofficial”¹⁰ education done through informal learning and non-formal education.

Cultural sociology explains how taste is one of the main battlefields in the cultural reproduction and legitimation of power (Bourdieu, 1984). Legitimate cultural capital is tied to social stratification whereby the dominant tastes in society reflect its power relations. Young people’s formal portfolios and disciplinary identities can be theorised using ideas from the sociology of education (Bourdieu & Passeron, 1977). This tradition theorises how the development of classroom identities necessitates that students assimilate academic cultural capital and highbrow tastes.

At the same time, teens might be developing very different personas. In affluent contexts, teenagers enjoy a form of dispositional plasticity in often having more leisure time than other members of society to make diverse choices and enjoy multiple experiences (Faucher, 2016). As discussed in Chapter One, young people might prefer to curate from their “unofficial” roles in extra-mural visual creativity as valued sources of emerging cultural capital (Savage et al. 2013. Prieur & Savage, 2013). Style is the overall effect of a sum total of multimodal choices (Domingo, Kress, O’Connell, Elliot, Squire, Jewitt & Adami, 2014). Social semiotics supports the description of a teenager’s negotiation of choices in creating his or her e-portfolio style. Teens could reproduce the digitally disciplinary e-portfolio style or add other aspects of their identities. Teens could also view curating an e-portfolio to be unnecessary, particularly if they are not very interested in the kind of cultural capital that could be gained from being recognized as visually creative.

Symbolic interactionism also helps frame teenagers’ contrasting digital self-presentations; as exhibitions whose design is a response to diverse potential audiences (Hogan, 2010). For example, some male students might not want to be seen as being ‘arty’ and involved in a subject perceived by other pupils to be “feminine” for expressing emotions (Wikberg, 2014). Students may not want to share an academic identity if they perceive being at school as ‘uncool’ (Smithers, 1999. Natale, 1996). Such teenagers may also prefer not to be identifiable as school-goers online.

Literature review process

This literature survey seeks to provide a framework which can answer research questions concerning the relationship between young people’s e-portfolio styles and their widely varying circumstances. The most relevant experts and sources were initially identified using pertinent overviews of sociology, education, media and multimodal research. Further experts and sources were suggested by local research groups and researchers focused on these topics. Keyword searches (see table 2) were also used to find experts and sources whose foci were similar in exploring overlaps between society, infrastructure and education in visual culture. Over the course of my research (2009-18), the index of search terms and relevant abbreviations in table 2 was adjusted to more accurately reflect the concepts in use by researchers in recent publications. To ensure I kept abreast of new research, I traced the most germane papers’ citation histories for locating fresh sources. I also used the keyword index for updating Google Scholar alerts that notified me if new articles featured such keywords. I solicited feedback via research articles at

¹⁰ My research uses the term ‘unofficial’ for describing young people’s interests and practices that occur outside formal education. Such practices may occur in non-formal (Hager & Halliday, 2006) or informal (Sefton-Green, 2013) learning settings. Although my research does separate disciplinary and unofficial spaces following the prevalent view that informal and formal styles are separate (Colley et al. 2003), students’ practices are explored in “unofficial” visual creative domains that bridge these settings.

varied conferences and related presentations and received responses on my research blogsite and research-focussed social network presences.

Research framework

My research followed a protracted exploratory process to find a suitable framework that could explain how young people's e-portfolio styles encompassed diverse cultural and leisure repertoires. Such diversity spanned widely dissimilar school, home, vocational and media spaces. Young peoples' very different achievements necessitated that connections between e-portfolio styles and broader social inequalities in Cape Town be investigated.

Theorising stratification

Bourdieu on taste, social hierarchy and class distinction.

Sociologists tend to focus on structural inequality and my research used key concepts from educational and cultural sociology (Bourdieu, 1984, 1986, 1996) to relate the tastes shared in e-portfolio styles to class hierarchies and social structures. Pierre Bourdieu's research was the first to provide a genuinely sociological interpretation of taste in an explicit and systematic fashion (Rahkonen, 2011). Bourdieu's research developed a social critique of the judgement of taste, which involved placing art and culture within a social world where it embodies forms of power and privilege (Hanquinet & Savage, 2016). Bourdieu's sociology of aesthetics proposed that taste has social conditions of existence in which both tastes and lifestyles are ranked in social hierarchies (Crossley, 2013). Differences in taste, or aesthetic preferences, are a social product of other differences amongst classes (Bourdieu, 1984). According to Bourdieu's theory, taste mirrors social stratification and sub-groups of individuals in class fractions have specific agglomerates of cultural capital. Such capital encompasses their age, education, profession, lifestyle, race and gender.

Bourdieu considered taste to be one of the main battlefields in the cultural reproduction and legitimation of power. He saw a constant struggle in people's everyday lives for the symbolic power to determine what 'good taste' is. Rather than the universalisation of such taste as a natural process, Bourdieu argued it was a perpetual struggle between classes and other antagonistic social collectives. Each group struggles to impose the definition of the world that is most congruent with their particular interests (Bourdieu & Wacquant, 1992) and reflects the group's background assumptions concerning habits and tastes.

In *Distinction* (1984), Bourdieu proposed that judgments of taste are related to social position, or more precisely, are themselves acts of social positioning. He argued that distinction is a social force that assigns different values to dissimilar people within a particular society. Fundamental social differences can be expressed between groups via their contrasting preferences and stylistic practices in diverse fields. Each field has a small number of distinctive features, and as a whole these function as a system of differences (Bourdieu, 1984).

Bourdieu proposed that distinction only exists through an ongoing struggle for the exclusive appropriation of the distinctive signs that make for "natural" distinction. In the

1960's French society¹¹ that Bourdieu researched, he defined distinction as the way of consuming the refined cultural goods that are regarded, at particular moments, as works of art. His *homology thesis* placed at the apex of social distinction a Modern form of cultural capital that embraced a Kantian aesthetic of disinterestedness and celebrated classical music, canonical literary forms and modes of modernist culture (Hanquinet & Savage, 2016). Bourdieu's research into the sociology of lifestyles (1979) argued for a *structural homology* that assumed social class structure to be linked to that of aesthetic preferences through a one-to-one correspondence. People's tastes were seen as directed by their position within the class structure, which is defined by types and volumes of capital, and organized in line with a highbrow versus lowbrow opposition (Coulangeon & Lemel, 2009). According to Bourdieu, the expression of class distinction through cultural preferences was related to a broader world of lifestyle preferences. For example, he argued that the refined aesthetic tastes that the cultural nobility used as cultural capital for expressing social superiority was similar to their use of ascetic culinary ones (1984).

In the context of twentieth-century France, Bourdieu argued that highbrow aesthetic tastes and other dispositions were used to express superior distance from 'lower' social groups (1984:2010). Well-to-do individuals from a shared class (or class fraction) present their distinctive *social space* to the world in a process of class distinction. Social space is a geographic/mathematical metaphor for how people are arranged in society (Bourdieu, 1985).

Although multiple dimensions exist in social space, these are usually categorized using a particular form of capital (Bourdieu, 1984), usually cultural and economic (Crossley, 2013). Clusters of actors vary in terms of their overall wealth (or volume of capital) and its *composition* being the relative weighting of economic and cultural capital in their portfolio. Domination of a social space's field of forces follows from a group's ability to mobilize the most capital (Bourdieu, 1989). For example, advantages in the cultural capital of the very cultivated make this group more likely to determine what constitutes legitimate tastes within society (Glenn, 2010). He argued that the lower classes and new petty bourgeois would tend to follow the taste distinctions valorized by the dominant faction.

Distinction is proposed by Bourdieu to be fundamentally based on the power held by the upper class arbitrarily to impose on others their categories of perception and appreciation as the legitimate ones (1984). According to this view, indicators of prestige and dominant taste originating at the top become a hegemonic norm. One example is the focus on highbrow objects in modern schooling that define 'pure' taste as legitimate (Bourdieu & Passeron, 1979). Such valorised tastes mirror the system of ethical and aesthetic values in society, for example those that were closely tied to the ruling bourgeois class (Bourdieu, 1984) in Bourdieu's time. The 'middle-brow' and 'popular' taste universes of the dominated and marginalised groups would thus largely be excluded from elite French schools as a result of such an emphasis (Bourdieu & Passeron, 1979. Bourdieu, 1988).

Inequalities in capital were argued by Bourdieu to result in social classes manifesting different *habitus*, or class habitus (Bourdieu, 1985, 1993). More specifically, they have different tastes (Crossley, 2013). The habitus is, 'a system of durable, transposable

¹¹ As Bourdieu points out in *Distinction's* (1984) introduction, the system of distinctive features which express or reveal economic and social differences (themselves variable in scale and structure) may differ considerably from one period, and one society, to another.

dispositions which functions as the generative basis of structured, objectively unified practices' (1977). Habitus is socialised subjectivity; the way society becomes deposited in persons in the form of lasting dispositions, or trained capacities and structured propensities to think, feel and act in determinant ways, which then guide them (Wacquant 2005). According to Bourdieu's analysis of French society in the 1960's, there are differences between the habituses that different classes support. For example, the culturally wealthy prefer avant-garde art, while the economically wealthy prefer more conservative artistic forms. The poor in both forms of capital shun either alternative in preference to the objects and pursuits of popular or folk culture (Crossley, 2013).

Bourdieu developed the habitus concept as part of defining a general theory of social practices and human action that responded to old dilemmas in the social sciences regarding how to define and analyse power (Navarro, 2006). Bourdieu originated an analytical framework that sought to be equidistant from the opposing poles of either an overemphasis on agency or a one-sided focus on structures. Rather than proposing that power is ubiquitous and beyond agency or structure, he argued that power is culturally and symbolically created. It is constantly re-legitimized through interplays between agency and structure. Tastes and lifestyles are not only different, but ranked in social hierarchies (Crossley, 2013). The contingency of this process is marked to some degree by habitus, which tends to naturalise differences. Differences in taste and lifestyle feel natural because they are internalised as habitus, but sociological analyses reveal these to actually be contingent upon the social and historical situation (Crossley, 2013).

The ranking of cultural differences largely occurs through the education system (Crossley, 2013). This field seeks to ensure the reproduction of cultivated dispositions (Bourdieu, 1993) by habituating students to a particular institution and discipline's categories of action, expression, perception, conception and imagination. Schools and universities in turn bestow legitimacy upon certain cultural forms, converting them into an institutionalized form of cultural capital (qualifications), which in turn allow their holder to secure better jobs with higher income (Bourdieu, 1998). Legitimation is the key mechanism in the conversion of capital to power. Cultural capital has to be recognized as legitimate before its value is realizable (Skeggs, 2004).

Bourdieu's research into the French education system also explored inequality in educational outcomes. His research highlighted the importance of class habitus in shaping why students from middle class homes often do better than those from the working class (Bourdieu & Passeron, 1977). They argued that the culture of schools is middle class and its class behaviours are associated with academic aptitude. Working class students tend to be disadvantaged by their lack of access to the official sanctioned culture and a system of negative expectations (Crossley, 2013). For example, the pattern of linguistic usage expected and rewarded by school is middle class and students from working class homes are disadvantaged in the language of their home life being excluded and penalized as "incorrect".

Bourdieu (1979) insisted on the role of cultural capital in which valued artistic and cultural forms permit the reproduction of the educated middle classes. In the educational field, *institutional cultural capital* has the highest currency in symbolising the academic cultivation of students' habituses (Bourdieu, 1986). Such capital formally recognises knowledge, usually in the form of educational qualifications. This allows a direct comparison of credentials and the conversion of cultural to economic capital at a mutually understood but changeable ratio (Bourdieu, 1986). Qualifications thus have

market value, albeit dynamic and field-specific ones (Carrington & Luke, 1997). Institutional cultural capital supports the naturalisation of taste by deciding which cultural repertoires should be legitimated, or excluded, in education (Bourdieu & Passeron, 1977). A dominant middle-class culture provides the content for education throughout the world and is promoted as aspirational for people everywhere (Soudien, 2007). Schools typically foreground highbrow personas, repertoires and tastes to be legitimate cultural capital (Bourdieu & Passeron, 1977), while marginalising or excluding middle- or lowbrow ones as illegitimate. Schooling simultaneously secures the active participation of students and teachers in the pursuit of credentials that entail the learning of legitimate culture, while obscuring the reproduction of class domination that is the effect of such participation (Burawoy & von Holdt, 2012).

'French and European modalities' (Narunsky-Laden, 2010) were originally used in defining distinction. Taste is not a universal and monolithic category though, but will operate differently in other national contexts. For example, there are big differences between the largely homogeneous, but class conscious, modern societies where cultural theorists first defined distinction in and settler-(post) colonial contexts, such as Australia (Bennett, 2015) or South Africa. An important aspect in contrasting cultural preferences within and between countries is the role of locality (i.e. global versus local production), which may be as important for taste preferences as definitions of high or low cultural value (Schenk, 2015). For example, a preference for the consumption of cosmopolitan brands is likely to be a preference of affluent consumers (Binnie et al. 2006) for showing off their hip, metropolitan worldliness versus an imagined rural and working-class parochialism (Bookman, 2012).

In the visual arts subject in South Africa, students are taught a narrow range of cultural repertoires via arts history and studio productions, which are focused on supporting progression to prestigious tertiary studies. To justify university access¹² into educational disciplines focused on high status productions in creative industries (such as architecture and fine arts), students are required to provide evidence of observational drawing skills and organisational skills in putting together a showcase portfolio. Students must thus develop cultural repertoires in the domains of observational drawing and portfolio exhibition, which are often essential for them to justify undergraduate progression. The foregrounding of these cultural repertoires and histories as central to artistic practice has a colonial dimension. South African arts history discourse has a specific a settler colonial character that has neglected historical African art (Becker, 2017). The same bias is evident in the South African visual arts syllabus, which mostly aims to assimilate young people to a highbrow, fine arts exhibition culture. There is little scope for educators to teach about other visual creative traditions and repertoires in their class timetables.

¹² This is evidenced in two well-known, Cape Town tertiary institutions' requirements: To justify access to the Fine Arts diploma or degree at the Michaelis School of Fine Art in the Humanities Faculty of the University of Cape Town (UCT), aspirant students were expected to submit a compact disc with 4 original drawings and 10 individual works in diverse medias and colours (Michaelis, University of Cape Town, 2014). To study Architecture at UCT, students had to submit a portfolio with two drawings from direct observation and four design exercises that are likely to include sketching work to show process development and illustration in the final designs (UCT School of Architecture, 2014). To qualify for access to a National Diploma in Graphic Design at the Department of Design and Informatics in the Cape Peninsula University of Technology (CPUT), each aspirant student was required to submit a hardcopy portfolio with artworks that reflected the applicant's creativity, sense of design and ability. These had to include drawings that were not; made from photographs, copied or traced (unless explicitly instructed) (CPUT, 2014).

Cultural sociology situates Modern distinction in the visual arts subject

Bourdieu's sociological analysis of art production aims to decipher how art is framed by and relates to practice, identity, social relations and different spatial environments (Zhang, 2015). My research follows Bourdieu's analytical approach by linking young arts students' remediation of artworks and classroom personas to modernist tastes for expressing a traditional form of social *distinction*. Despite both sites being very unlike, their e-portfolio curricula dovetailed with the visual arts syllabus in promoting the assimilation of a modernist take on distinction. Such a shared focus is tied to the shared relationships the schools have to the fields of education and power.

Bourdieu's notions of field, practice, capital and distinction provide a sociological perspective on the role of art in modern society (Zhang, 2015) and still provide the most comprehensive set of tools for explaining the fate of Modern art fields (Prior, 2005). Such instruments ground artists and art objects within the social conditions and structure of art production and consumption, creating links from cultural objects (such as e-portfolios) to social stratification. This habitus-based analysis derived from a sociological theory of cultural reproduction (Bourdieu & Passeron, 1979) can be used to establish links between the cultural objects of e-portfolios and dominant tastes in the visual arts educational field. I describe how e-portfolios reveal teenagers' different relationships to four fields that strongly shape the visual arts subject; power, education, commerce and prosumption/produsage¹³ (see Chapter Seven's in-depth discussion).

Bourdieuian concepts are used to frame the academic cultural capital and classroom personas which young people were expected to reproduce as well as which *aesthetics* to foreground in end-of-year exhibitions and matching e-portfolio styles. Aesthetics can be defined as the social judgement of style or the politics of style, with style defined as the politics of choice (Kress, 2010). In evaluating sets of semiotic choices (or stylistic options) in a text, aesthetics expresses power relations existing in society, which have become naturalized as taste. The influence of power relations on what are taught as legitimate aesthetic tastes is clearly evident in what students are taught in the visual arts educational field and the field's underlying assumptions. Visual arts education naturalizes a modernist, highbrow model of taste judgement that is strongly associated with the middle and upper classes. Such education neglects, or even negates, the many other taste hierarchies in the visual culture arena¹⁴.

In South Africa, formal secondary education remains strongly influenced by the mores and values of Western, English-medium schooling (McKinney, 2005. Soudien, 2007),

¹³ The term prosumption was originally defined by Alvin Toffler (1981) to mean 'production' by consumers. He had anticipated that these distinct roles would merge in processes of mass customization (1970). My research follows the recent use of the term, 'produser' (Bruns, 2008, 2009) that describes the hybrid interweaving of the creative producer, software user and consumers' roles in leisure pursuits. For example, photographic hobbyists may now develop skills using advanced camera technology and editing software that used to be reserved for professionals. For hobbyist consumers with increased leisure time and disposable income, this opportunity is now available due to falling prices. The prosumer trend is also supported by increased media geared towards amateurs and hobbyists.

¹⁴ Following the example of Bernstein (Bernstein & Solomon, 1999), I use the term 'arena' to create a sense of drama. Many artists have the exciting opportunity of participating in several fields of the visual culture arena. A field may be narrow in relating to one domain with its own norms and aesthetic hierarchy. For example, graphic design is largely demand-driven in response to the branding and marketing requirements of businesses and other organisations. Aesthetic success often requires unambiguous visual communication via vector designs that support rescaling and reformatting. A designer's success can be gauged by her status, employers, project size and symbolic recognition she receives from experts. Such commercially-driven success and aesthetic criteria would be at odds with the Modern art field's hierarchy. It emphasizes autonomous artistry and individual's development of original and challenging representations (Hughes, 1998).

which is the norm. The National Curriculum statement (DOE, 2008) encourages the exploration of South Africa's rich and diverse culture and indigenous knowledge systems in art. Local secondary school syllabi have shifted from being completely dominated by European art to including a large African Art component (Nettleton, 2017). Nevertheless, such a multicultural approach is not incompatible with retaining the primacy of Western European and North American art traditions at the centre of the visual arts syllabus, as occurs in the United States (Bennett et al., 2011).

Such a contradiction speaks to the broader difficulties of *decolonizing* South Africa's educational field (Moodley, 2004). Decolonisation is a neologism, one of whose meanings describes the practical process of (anticolonial) cleansing in which indigenous voices establish dialogues with metropolitan ones and are given weight (Le Sueur, 2003). This meaning is highly pertinent in the South African educational field where indigenous black African languages (Prah, 2007), culture and knowledge systems have either been marginalized or excluded as having lesser status than European or Afrikaans ones. Bourdieu's theory of colonialism (Go, 2013) can explain such marginalization: Both Dutch and British colonial policies were *caste*-based, race supported by political power and privileged white citizenry. The economic and cultural capital of this caste continued to be developed under apartheid. Three centuries of white economic and cultural dominance cast a long shadow over the cultural hierarchies favoured within the South African education syllabus, which in turn still strongly shape students' social interactions and communications.

The visual arts syllabus foregrounds development of *embodied* cultural capital via these two repertoires. Embodied cultural capital refers to long-lasting dispositions of the mind and body, expressed commonly as skills, competencies, and knowledge (Bourdieu, 1986). Related practices develop *objectified cultural capital* that comprise physical goods as cultural goods, which are the trace or realisation of theories or critiques of those theories (Bourdieu, 1986). In the visual arts subject, objectified cultural capital largely consists of drawings curated into research sketchbooks and exhibition portfolios.

Modern ideas of aesthetic distinction inform the tastes and artwork subject matter that teenagers are taught in the visual arts. Representations based on a Modernist view of art (Greenberg, 1971) still dominate visual arts teaching practices, as does its framing of high versus low culture (Peterson, 2005). Bourdieu (1984) proposed that *restricted fields of culture*, such as modern art, tend to be viewed as legitimate by highbrow audiences and esteemed as sources of high cultural capital. By contrast, the popular, demand-driven fields of external cultural production, such as commercial advertising, are viewed as illegitimate.

Although the binary division of highbrow versus lowbrow is too simplistic for today's accelerated culture (Prior, 2005), it remains a framework that strongly guides visual arts education (Faucher, 2016). The Modern framework of aesthetic distinction creates gaps between art education and dissonant youth cultural and professional art practices (Faucher, 2016), which are characterized by post-Modern practices blurring low and high culture. The framework also typically excludes craft repertoires, creating a gap for black youth who may want to explore African crafts formally.

The pressure of the modern, Western Canon as the pre-eminent visual cultural hierarchy for developing academic cultural capital seems to strongly influence local visual arts education. Overall, this syllabus reflects Modern norms in developing a taste for fine arts

'master's' productions. As a high cultural phenomenon, Modernism holds that individual creative expression should remain uncontaminated by the "impoverished" popular imagery (Richard, 2005) of low and middle brow culture. Values associated with youth culture and the popular imagery from which it borrows extensively contributed to framing youth culture as low culture (Faucher, 2016). The modernist pedagogical posture tends to exclude the informal cultural practices of youths. Youth culture's values tend to be at odds with the modernist discourse of rationality (Duncum, 2009). For example, institutional schooling's conservative values are apposite to the transgressive pleasures related to play and exploration often associated with youth culture (Faucher, 2016). The productions and repertoires of craftsmen and artist-craftsmen (Becker, 1978) are largely excluded from the visual arts syllabus. In South Africa, globally acclaimed craft productions, such as Laduma Ngxokolo's MaXhosa fashion label's use of isiXhosa beading (<http://www.maxhosa.co.za>), or Esther Mahlangu's varied applications of Ndebele pattern-making (Giblin & Spring, 2016), do not receive attention in the visual arts syllabus.

Such exclusion is also indicative of the gap between modern visual arts education and the practices of post-modern artists producing contemporary art (Hughes, 1998. Downing & Watson, 2004). Forays into the unknown are a primary ambition of contemporary art production, which is apposite to very structured national curriculum of the school art world (Downing & Watson, 2004). Practical studio projects seldom seem to afford students any scope to experiment with contemporary art practices. Such practices may include productions that experiment with different types of authorship and that blur medias or genres. Contemporary arts practices may also seek to combine different fields or are aimed outside an arts gallery context. Contemporary art involves experimentation with different types of authorship (such as under aliases or group productions) (Irvin, 2005) and may span disciplinary fields (Smith, 2009). Professional art practices have involved blurring of genre for decades (Faucher, 2016), while contemporary artists also play with artistic boundaries. For example, by shifting from studio-produced, permanent artworks to temporary, situated art practices (Doherty, Buren, Bourriaud & Domela, 2004).

Secondary school art educators face many challenges with incorporating contemporary arts practices in class (Downing and Watson, 2004) and largely reproduce a Modern approach to artistic distinction. Educators' schools may also signal distinction through the types of media they teach. Well-off visual arts departments' budgets can educate students in the exclusive medias that professionals use. For example, painters who use acrylic and oil paints on canvas versus the low-cost plaka paints on cardboard most typically taught in lessons. Affluent schools may also expose their students to a wider range of art-making processes than hand-drawn ones. For example, they are likely to experiment with contemporary art via art specific ICT suites (Downing & Watson, 2004) that are not available in poorer schools.

The study of art history themes or studio practice in digital media, photography and film, the orders of 'mechanical reproductions' or 'virtual simulation' (Virilio, 1994) is infrequent in secondary school art. This reflects the dual constraints of affordability and low cultural status in the dominant fine arts hierarchy. Both orders have historically had a low standing as evidence of a student's academic cultural capital in the visual arts. As an example, photographic reproductions have been stigmatized as the easily-produced, 'middlebrow art' (Bourdieu, 1996) of amateurs as opposed to the rigor evidenced by professionals' observational renderings. In addition to such historical perceptions of low

cultural standing (Downing & Watson, 2004), the high costs of providing and supporting technologies serve as gatekeepers for most visual arts departments.

Middle class, english medium schooling and white norms as defaults

The government's White Paper for Education and Training and the South African Schools Act state that the country's education system must strive to create respect for different cultural, religious and language traditions (Booyse, Le Roux, Seroto & Wolhuter, 2011). In theory, such a multicultural educational approach should have an important role to play in producing a sense of place and belonging amongst young South Africans. However, in practice many local schools often function as 'assimilation machines' that promote the cultural conformity of white, English medium schooling norms and foreground Western role-models (Soudien, 2007).

Multiculturalism arguably still represents an ideal, as exemplified by national outcomes related to linguistic diversity and desegregation (Soudien, 2007). English overwhelms all other official languages as the preferred language for instruction and entry to the workplace. No progress has been made in developing African languages as a medium of instruction beyond grade four. Far fewer university students registered for African languages in 2008 than in 1997 (Shiraya, 2008).

In this country then, desegregation of educational institutes has largely been a one-way process in which black students move to better institutions that were historically white (Soudien, 2010). Rather than being a process that fosters cultural diversity, black students' experiences in moving into formerly white schools tends to be that of symbolic violence in having to assimilate the largely white minority's norms and expectations (McKinney, 2011. Soudien, 2010. Vandeyar, 2008. Battersby, 2004. Vally & Dalamba, 1999. Carrim, 1998). Local educational research reveals that black students have 'been recruited or have promoted themselves into the [white] hegemonic social, cultural and economic regime' (Soudien, 2007, p. 112). As in educational contexts elsewhere, the assimilationist position presupposes that students from non-dominant groups are made to change their ways of being when entering schools from which they were previously excluded (McKinney, 2010).

While the schools of the privileged have become diverse post-apartheid, their character and number remain largely white and middle class (Fiske & Ladd, 2004. Soudien, 2004). Western middle-class mores and aesthetics are dominant in school still as they serve as the preferred cultural values for work and learning (Soudien 2007). Such an assimilationist cultural framework in education reflects South Africa's segregationist past and the legacies of white colonial domination and privilege. This is a problematic inheritance for black African adolescents who carry the double burden of poverty and cultural alienation. The culture of middle class schools is suspicious of non-middle-class ways of being and doing. It is condescending of other ways of justifying relationships, tastes and preferences and choosing futures that do not correspond to the "middle class dream" (Soudien, 2004). Institutional regimes which insist on emphasizing uniformity in communication practices, exclude, marginalize or silence the practices of such students as they do not match its normative expectations (Blommaert, 2008).

Such assimilatory environments mark the ongoing social reproduction of *whiteness*, which poses obstacles to the formal recognition of other race (or ethnic) groups' identities. Whiteness is a shared social space of privilege, whose cultural, economic, psychological and political privileges are normalized and rendered unremarkable (Steyn, 2005). As a system, whiteness is naturalized and invisible, especially to whites (Dolby,

2001a. Green et al. 2017). Racism springs from the fact that dominant actors receive benefits at many levels, whereas subordinate actors do not (Bonilla-Silva, 2001). In South Africa, many whites enjoy economic, educational and social privileges that blacks do not.

In such an unequal society, one would expect that educators should foreground racism as a serious social problem. Local visual arts education favours this form of multicultural education, with this “colorblind” ideology as its hallmark, just as is found in American arts education (Desai, 2000). Although a multi-cultural approach makes a positive contribution in accommodating cultural diversity in arts schooling, its attendant idea of a “colorblind” society is deeply problematic (Bonilla-Silva, 2017). In terms of policy, visual arts curricula (Department of Basic Education, 2011) appear to follow a “colorblind” approach in their description of a universal learning subject, who has no race, class, or gender.

“Colorblindness” is the racial ideology that posits the best way of ending discrimination is to treat individuals as equally as possible, without regard to race, culture or ethnicity (Williams, 2011). Such an ideology reflects an ideal society in which race is insignificant. By contrast, when applied in highly unequal societies, like the United States of America and South Africa, its use has ironic consequences (Ansell, 2006). For example, while it proved helpful in calling to abolish Jim Crow and apartheid, the same concept stalls transformation of the racial order in the direction of greater equality. The post-racial assumptions in a “colorblind” approach are furthermore problematic in typically rendering the racialization of punishment, immigration and the media invisible (Desai, 2010).

In the visual arts subject, a “colorblind” approach can perpetuate racism by not acknowledging the reality of art practices and schooling being racialized, particularly as white tastes are largely foregrounded as legitimate culture. South African educators typically find white (Soudien, 2007) and black identity a difficult matter to discuss with their students. Rather than exploring racism using critical multicultural art education (Accuff, 2013) and helping students develop colour consciousness (Ullucci & Battey, 2011) or racial literacy (Desai, 2010), local educators seem to follow US examples that silence expressions of difference and dissent as a means to build classroom community across social difference (Chernoff, 2015).

Cultural omnivores use eclectic repertoires for distinction

Participation in highbrow culture seems to be slipping and the shift from cultural exclusiveness is reflected by the introduction of the term ‘cultural omnivores’ to describe a particular cultural appreciation profile (Hanquinet & Savage, 2016). As this section elaborates, social stratification may be expressed in very different ways. Models of stratification have expanded from homogenous societies in which command of highbrow culture denotes distinction (Bourdieu, 1984) according to the original Bourdieusian model. In heterogenous societies, *cultural omnivores* knowingly mix highbrow with popular culture to achieve excellence (Peterson & Simkus, 1992. Peterson and Kern, 1996).

Peterson’s omnivore thesis (Peterson & Simkus, 1992. Peterson & Kern, 1996) describes how distinction has shifted away from consumers who invest in a restricted range of highbrow cultural activities, to omnivorous consumers who have an increased breadth of cultural taste and are willing to cross established hierarchical cultural genre boundaries (Hazir & Warde, 2015). The mechanisms of cultural distinction remain in place, but the values on which they operate change; omnivores must transgress and cross boundaries

to achieve a special status. They draw social boundaries by picking cultural repertoires from lesser status groups, which are then mixed with the omnivores' repertoires in a very specific way (Hanquinet, forthcoming).

The command of consecrated culture remains an important token of distinction and continues to function as an effective form of cultural capital (Bennett et al. 2009) in contemporary societies, particularly in educational fields. Nevertheless, very few studies, especially those done outside France, have found much evidence for the disinterested aesthetic disposition¹⁵ being widespread amongst dominant classes (Bennett and Silva, 2011). Analysis of the consumption of cultural forms across high, middle and lowbrow formats has instead highlighted the growing importance of eclecticism (Donnat, 1994) and even ostentatious openness to diverse cultural repertoires (Fridman & Ollivier, 2004) for drawing social boundaries.

Cultural omnivorousness is linked to upper class social strata which have at their disposal greater cultural and economic resources for navigating between different cultural genres (Fridman & Ollivier, 2004). High volumes of consumption across a range of forms marks the omnivore as culturally distinguished (Chan & Goldthorpe, 2007, 2010. Prior, 2005). Although their taste profile includes both lowbrow and highbrow genres, empirical research (Bennett et al. 2009) suggests that omnivores are selective and show little tolerance for the genres associated with lower social/cultural status. Rather than a much-cited openness to cosmopolitan tastes that the omnivore concept suggests, in the South African context it appears to have a far lesser known counterpart – a disinterest (bordering on ignorance) of local trends and cultural activities that exist outside the immediate and familiar environment of the individual (Schenk, 2015). An omnivorous repertoire may be considered a new form of distinction that the economically and culturally advantaged use for making their cosmopolitan identities more distinguished than others (Hazir & Warde, 2015), while legitimating cultural ignorance of and prejudice towards local tastes (Schenk, 2015). For example, well-off white students at Rhodes university rarely consumed local entertainment productions (Schieferdecker, 2017).

Research into South African culture omnivores has also addressed audiences for; live theatre (Willis & Snowball, 2009. Snowball, Jamal & Willis, 2010), Eastern Cape cricket (Brock, Fraser & Botha, 2016), cultural events linked to tourism for sports events (Snowball, 2013) and global media (Strelitz, 2005) amongst youth. Researchers found omnivorous patterns of consumption by these audiences, which varied according to education, age and race, but less so by class. Cultural univores were identified amongst theatre goers (Willis & Snowball, 2009. Snowball, Jamal & Willis, 2010). However, such consumers of high culture with narrower cultural tastes tending towards traditional art forms, were a small part of the sample. Overall, local research suggests that culturally omnivorous forms of distinction are far more salient in South Africa than Bourdieu's univorous outlook (Bourdieu, 1984).

Dissonant identities and cultural profiles

Both approaches remain limited in their scope, as the concepts of 'dissonant identities' (Lahire, 2004), 'cultural profiles' (Hanquinet, 2016) and 'emerging cultural capital' (Savage et al. 2013. Prieur & Savage, 2013) point to broader perspectives on stratification:

¹⁵ An aesthetic disposition is the ability to decode the formal aesthetic structure of a cultural work (Lizardo, 2008). Bourdieu's sociological analysis of the French class society highlights how those brought up in a culturally rich milieu are more likely to develop aesthetic dispositions and to acquire cultural skills through habituses primed to develop academic cultural capital (Hanquinet, forthcoming).

Rather than just focusing on cultural boundaries at a group level, Lahire (2008) argued that these should also be examined at the level of individual tastes and dispositions. While recognising the statistical correspondence between social hierarchy and cultural classification, Lahire's research showed that individuals are more 'dissonant' culturally speaking than a focus on an aggregated level suggests (Hanquinet & Savage, 2016). He proposed that researchers should try to understand the reasons for such intra-individual variations.

Hanquinet has proposed that researchers could make a more interesting contribution than identifying and labelling people (i.e. 'omnivorous' or 'dissonant') by exploring a relational vision of cultural profiles (2013). These are a set of cultural activities and leisure activities, tastes in various areas and knowledge of art, which classify and can be classified. By describing people's patterns of cultural choices, researchers can assess how individuals' choices relate to still central cultural hierarchies articulated around values, such as low/high, entertaining/serious, emerging/established (2013). Researchers who consider patterns in the existing and emerging cultural hierarchies at the individual and at social levels (2016) should be able to identify new patterns that fall outside 'greater tolerance' and 'individual dissonance'.

Emerging cultural capital

As discussed in Chapter One, the status markers of emergent cultural capital span practices in information technology, sports, popular music and socializing. My research focused on emerging cultural capital due to such markers being closely connected with young people's informal roles in extra-mural visual creativity:

Global media studies research shows how youths in extra-mural contexts are strongly engaged with informal repertoires (Ito et al. 2009. boyd, 2014. Black, Castro & Lin, 2015). Local research (Walton & Donner, 2013. Brown, Czerniewicz & Noakes, 2016) has also explored how students have successfully leveraged "unofficial" creative interests through online learning to advance their social trajectories. Such examples point to how informal creative repertoires serve as valuable cultural capital for young Cape Town students. Thus, young people's development of informal cultural repertoires in creative industry, craft or youth culture, may be more accessible and have more resonance than the drawing or painting practices taught in arts lessons.

These young people may be keen to connect with other people, as well as their own social and physical environments, through the visual creative productions that many teens enjoy making (Gauntlett, 2011). Cape Town's teenagers may also be attracted to careers in its burgeoning media industries (Booyens, 2012), such as its new media sector (Booyens, Molotja & Phiri, 2013). Youths interests in developing these "unofficial" trajectories points to the powerful role of the media in strongly shaping Cape Town students' cultural preferences (Schenk, 2009), in addition to their class and race (Schenk, 2015).

Bourdieu's approach and the highbrow focus in visual arts teaching may suggest that trajectories in such middle- and even lowbrow creative industries are "illegitimate". Such trajectories rather comprise a new form of cultural boundary as a form of *emerging cultural capital* (Priour & Savage, 2013). Researchers have identified this form of cosmopolitan, transnational capital in Europe (Savage et al. 2013), which preserves the exclusionary aspects of cultural capital as dissected in *Distinction*. Such forms differ in not simply being understood through the contours of traditional high culture, but have different status markers that are connected to roles in information technology, video

games, sport, popular music and socializing (Prieur & Savage, 2013). Such roles are linked to the well-educated professional and managerial classes in Europe, who increasingly play on its continental pitch (Bennett et al. 2009, Le Roux et al. 2008. Prieur, Rosenlund & Skjott-Larsen, 2008).

Although the e-portfolio is an example of an emerging cultural capital in its dependence on information technology, our e-portfolio syllabus provided limited scope for addressing other aspects of this capital. The e-portfolio lessons we taught were largely focused on images and personal reflections related to school-based learning. Such an approach was likely to provide a narrow window on each student's identity. A compliant student would only show part of his or her developing knowledge and awareness, but learnings outside school might contribute far more to his or her identity (Cambridge, Cambridge & Yancey, 2009). Young people could use their e-portfolios to represent *lifewide learning* (Commission of the European Communities, 2000. Chen, 2009), rather than just their classroom personas. While life-long learning represents the spread of learning across various stages of life, life-wide learning comprises a range of different environments in which learning occurs.

E-portfolios can accommodate students' many roles and varied sites of learning (Cambridge, Cambridge & Yancey, 2009). Mr. Proudfoot and Mrs. Zahra's visual arts students could share personas, roles and differentiating practices they valued from both formal and "unofficial" spaces. For the latter, teenagers could link their e-portfolio to other social networks and feature their music-, sports- and video game fandoms. My research conceptualized differences in such "unofficial" roles by linking *differentiating practices* with technological and material inequalities. Differentiating practices (Sims, 2014) are those that diverge from formally-taught repertoires. Students could spotlight differentiating practices in their e-portfolios to make and mark salient social differences and identities. For example, teenagers could foreground conspicuous consumption in post-modern affinity spaces (Gee, 2005), as diverse as manga or water sports videography.

Research into groups using other dimensions for creating social boundaries

While research continues to show the relationship between stratification and culture (Hanquinet, 2016, p. 19), researchers have explored other dimensions to the social boundaries between various groups. This broad focus responds to the absence of a single, all-encompassing objective field of distinction (Lamont & Lareau, 1988) in a post-modern environment where different "markets" and "currencies" of cultural capital compete (Hall, 2005). Principles for classifying tastes and practices are more numerous than before. Our epoch may be better characterised as one of the multiplication of the symbolic boundaries between genres as opposed to their abolition (Bellavance, 2008).

This is also consistent with the concept of dissonance (Lahire, 2006), which argues that people incorporate a plurality of legitimate orders through successive and simultaneous socialisations. By contrast to Bourdieu's homology thesis, dissonance posits that with the emergence of concurrent spaces of socialisation (clubs, groups, media, etc.) the argument for an over-riding classification of cultural legitimacy is falling into obsolescence. By focusing on intra-individual variations, it can be seen that very different cultural universes become co-habitants rather than rivals. This results in a decreased belief in culture traditionally defined as legitimate, following the emergence of scientific, commercial and entertainment cultures (Lahire, 2006) and a related plurality of orders of cultural legitimacy (Lahire, 2008). As a result, individuals are involved in a far more complex socialisation matrix than has previously been the case. Simple labels such as

snobs, univores and omnivores lead to a biased vision. Pure snobs are actually rare exceptions (Lahire, 2006). Rather, snobbism or omnivorousness represent tendencies or continua that define people to a greater or lesser extent. They can co-exist and even be related to other classifying registers.

In addition to class as a factor, researchers have identified other dimensions of social distinction. These are linked to different identity characteristics, media consumption and online practices:

Ethnic identity and race

Categories of 'race' and 'ethnicity' can both be theorised as ones of material exclusion and social meaning (Smaje, 1997). Race and ethnicity are conceptually intertwined and there is very little evidence that people see great distinctions between race and ethnicity in culture, politics and in daily life (Freund et al. 2003). Both terms are often used interchangeably in discourse (Fenton, 2003). For example, the term 'ethnicity' is commonly used as a euphemism for race that expresses both group ancestry and physical characteristics, such as being a (black) 'Zulu' or a(n honorary) "white Zulu"¹⁶. While *race* and *ethnicity* have a shared ideology of common ancestry, there are substantive differences in their contrasting realities as discourses:

Unlike ethnicity, race and the ideas associated with it have a profound historical association with racial slavery, colonial domination, and political and economic oppression (Fenton, 2003). 'Race' refers to a group of people connected by common descent or origin and the concept is used to categorize humans into groups called 'races'. Racial groups have been classified according to human variation in physical traits, ancestry, genetics and other social or cultural traits (Prewitt, 2013). Racial categories lack a firm basis in modern biology (Blackburn, 2000) and there is no consensus on the meaning and validity of the concept of race in the current literature across different academic disciplines (Lieberman, Kirk & Littlefield, 2003). Nevertheless, in some fields like branches of anthropology there is a strong consensus (Lieberman & Kirk, 2004). Although illusory and imagined, hierarchical racial categories have had profound consequences when imposed within and between societies. The slave trade, colonialism and apartheid have evidenced how racial categories were used for the (re-)production of injustice and material inequalities.

While an individual is assigned one race, he or she can claim multiple ethnic affiliations (Jiménez, 2010). These may cut across linguistic, national, regional or religious cultural groupings (Fenton, 2003). Another difference between race and ethnicity is that individuals can change the latter through learning, for example as part of a linguistic or religious conversion (Horowitz, 1975). Like race, ethnicity has a political dimension in that small ethnic groups may seek to define themselves positively, but they may also be stereotyped as 'outsiders' by dominant ethnic groups (Fitzgerald 1991). Discrimination against ethnicities is often simultaneously linked to racial prejudice, such as in the "Aryan" Nazi Germany's genocidal holocaust's attempt at eliminating the "Jewish race" (Heinsohn, 2000).

¹⁶ *Le Zoulou Blanc* ("The White Zulu") is a term synonymous with the internationally popular South African musician and social anthropologist, Jonny Clegg (Reitov, 1998). This nickname was earned for Clegg's long association with Zulu culture. Other white South Africans, ranging from John Dunn in 19th century to Graham Stewart (Hayward, 2007) and Jonny Clegg in the 21st, have also received this honorific title for their strong association with Zulu culture and heritage.

In recognition of the differences that exist in how young people identify their *racial* and *ethnic identities*, my research follows the example of Williams (2016). She differentiated race and ethnic identity in studying micro-bloggers with diverse backgrounds. Racial identity is part of a person's social identity and self-concept that comes from their knowledge or membership of a social group (Phinney, 1990, 1992). People then attach value, meaning or emotional significance to such inclusion. The main components of ethnic identity are; self-identified ethnic identity and its achievement through behaviours and practices, affirmation and belongings (Phinney & Kohatsu, 1997). Individuals typically perceive ethnic development to be central for identity development (Maramba & Velasquez, 2012. Hurtado et al. 1994. Tatum, 1999).

My research explored racial and ethnic self-identification, or its apparent “absence”, in young people's e-portfolio styles. In the United States of America, a person's first-language can serve as a proxy for their race (Snowball, Jamal & Willis, 2010) making it fairly easy to establish. By contrast, self-identification as part of an ethnic group can be complicated in being separate from belonging to the group. For example, while white women may strongly identify with a black or Hispanic identities and practices, they run the risk of being rejected when sharing these as imposter “wannabes” (Wilkins, 2008).

Cape Town anti-colonial artistic collectives show an alternate route to distinction

Distinction does not follow a fixed hierarchy, but always remains contested through agents' position taking in fields (Prior, 2005). The prevalent taste in any field is subject to change as it depends on fluctuating social assumptions. Visual arts education in secondary schools seems to ignore the reality that there are many routes to social distinction in visual culture via alternate hierarchies to institutionalised arts.

A pertinent example of this in Cape Town is anti-colonial artistic collectives, which include Burning Museum, iQhiya, Tokolos Stencil Collective (Brown, 2015, 2016. McGee, 2015) and Xcollektiv. These have championed the visibility of previously marginalized identities and media repertoires in Cape Town's art scene. They simultaneously confront apartheid's ongoing legacy through varied online-, public art- and gallery interventions. In Johannesburg, the Black Mark Critical Thought Collective works to reduce the shortage of critical thinking spaces available to black scholars, visual creative artists, writers and urban planners (Ntombela, Mdluli, Gule & Langa, 2017).

Such anti-colonial collectives extend the tradition of critical and political art in South Africa. There was a dramatic shift by artists based in the country towards producing artworks that addressed the harsh political realities post the Soweto uprising in 1976 and national disruptions of the 1980s. Black artists forced into exile during apartheid (Sack, 1989) also addressed this subject matter. Post-apartheid, there has also been a sizeable shift to recognizing the contributions that previously marginalized black artists have made to South African art and humankind's earliest artistic traditions (Giblin & Spring, 2016). Such awareness accompanied acknowledgement of the large-scale neglect of black art and cultural forms under the Colonial and apartheid periods of South African history. Nevertheless, the same privileged system that denied black artists equal opportunities, resources and education, still largely controls the “history” of south African art (McGee, 2007). In terms of art history, there has been little critical success in reconfiguring a South African canon (Ntuli, 1999). Its credentialing system continues to replicate disenfranchisements established in the colonial and apartheid eras (Marschall, 2001). Black artists and historians are still not equal partners in constructing this history and as a result some have called for a Truth and Reconciliation Commission for the arts (McGee, 2007).

Differences in Cape Town households' media consumption shape teenagers' habituses

Marked racial differences are also evident in South Africans' media consumption (Duncan & Glenn, 2010), which are tied to Cape Town teens' contrasting fandoms of genres and development of linked identities (Schenk, 2015). Differences in media consumption overlap with segregated histories and spatialities, as well as racially and linguistically defined practices in broadcasting, marketing and advertising (Schenk, 2015). Cape Town teens' cultural and media preferences exhibit marked racial and classed differences (Schenk, 2015), which are linked to the ways that households' contrasting media consumption practices influence young people's habituses. Mediated forms of cultural capital shape the way that young people learn to dress, speak, carry themselves and position themselves in relation to others.

The liberalization of South Africa's media environment post-apartheid has shifted its media environment from being dominated by state broadcasting to a diversified environment that is dominated by commercial broadcasters. For example, in television broadcasting, even community and public service tiers have been forced to follow commercial imperatives. While such diversity has benefited those in the economic mainstream, it has also resulted in the exclusion of those outside it. Big gaps exist between those privileged consumers who can afford exclusive movies, print media and pay television versus those reliant on free public broadcast radio and low-cost tabloids. For example, South Africa's 2011 Census revealed that 26% of households had digital satellite television in 2011 and almost half are modest consumers limited to local, free-to-air television channels. Twenty percent of households did not have a television (Statistics South Africa, 2012). At home, South African teenagers have very different access to television, radio, newspapers, print magazines and the cinema (South African Audience Research Foundation, 2016). There are also strong cultural differences in media reception since local broadcasters are traditionally fractured into different segments based on language and other cultural criteria.

South Africa's class structure is deeply racialised and the media amplifies the uneven distribution of cultural capital along racial lines (Schenk, 2015, p. 218). For example, black teenagers listen to radio far more often than their white peers. White teens are far more likely to tune into (subscription-based) satellite channels that broadcast mostly foreign (American and British) content. White teenagers also spend far more time online, since they usually have internet access at home and email accounts.

Online participation and digital personas

Recent studies of what people choose to do on the internet (Zillien & Hargittai, 2009. van Deursen & van Dijk, 2014) and on their orientation in the increasingly diversified news media landscape (Prior, 2007. Strömbäck, Djerf-Pierre & Shehata, 2013) indicate digital media use to be a classifying practice increasingly mediated through the habitus and an agents' position in social space.

Likewise to access to premium satellite television cable services, South African households' access to broadband internet marks privilege in being restricted to a wealthy minority of users, an information élite (van Dijk, 2014). This group's users have high telecommunication and internet access, with very dense and overlapping social networks. By contrast, most South African youths live in homes without internet access via their landlines (World Wide Worx, 2013) and are mobile-centric internet users (Donner, Gitau & Marsden, 2011) by default. Sixty seven percent of South African youths aged 16 to 24 report having used the Internet (Insights Africa, 2011). In Cape Town, a survey of Grade 11 pupils at nine schools in low-income areas found that almost all had

mobile phones and just under half used them to access the web through a mobile internet connection (Kreutzer, 2009).

There is an expectation that creative professionals should share their achievements online for personal brand development (Kelly, 2017). Such sharing of online personas has been normalized and connected to a sense of personal value (Marshall, 2015). Students' achievements documented in e-portfolios can readily be used for the exchange of diverse forms of capital (Connolly, 2011), just like the digital self-imagery used in people's profiles (Schwarz, 2010). Digital media production is increasingly becoming a classifying practice (Lindell, 2015, p. 368) and being a digital produser is emerging as a status symbol (Bruns, 2008). For the consumers of Generation Content¹⁷, online produsage is a new form of consumption through which they derive status through finding appreciative audiences. Consuming brands for status is secondary to honing creative skills as a means for achieving status (trendwatching.com, 2004).

Teenagers use of added dimensions for showing social distance

By contrast to the artistic knowledge of cultural omnivores enabling them be at ease with different cultural registers (Donnat, 2004), sociological analysis of youths' profiles in France reveal that the majority have *dissonant* profiles (Lahire, 2004). While the cultural practices of this majority draw on both low and high culture, dissonance in its adolescents' cultural profiles implies incoherence. The concept of dissonance supports ways of thinking about how individual *cultural profiles* are a battleground between cultural orders of different legitimacy (Hanquinet, 2016). Cultural profiles can be perceived as dissonant bricolages between different cultural orders. Such bricolages might include disjointed combinations of consumerism, fashion, musical taste, media technicity, sports fandom and tourist activities.

Differences in young people's identity characteristics and their roles as media consumers and online participants seemed likely to become evidenced in their e-portfolio styles. Young people's options to create and change lifestyles have also increased (Miles, 2000), suggesting that teenagers were likely to draw on cultural capital from other roles that might themselves create social distance in new ways. These might include: clothing being used as a means of self-expression and a way to judge people and the situations they face (Piacentini & Mailer, 2004). Alcohol is linked to very distinctive lifestyles (Järvinen & Gundelach, 2007), as is smoking (Haines, Poland & Johnson, 2009) and the use of socially disvalued media contents (Roe, 1995). Musical tastes are closely related to racial and ethnic identity and academic cultural capital (Tanner, Asbridge & Wortley, 2008), while modes of musical exchange are an emergent property that reinforces existing taste distinctions (Leguina, Arancibia-Carajaval & Widdop, 2015). Voracious, frequent users of a broad range of audio-visual media marks distinction versus abstemious users who have a far narrower scope (Hjellbrekke, Jarness, Korsnes & Coulangeon, 2015), as do sociable teens who seek their cultural adventures outside home versus homebodies. Social stratification patterns are also evident in adolescents' leisure-time sports participation (Scheerder, Vanreusel, Taks & Renson, 2005), where the singular effects of gender, opportunities at school and parental sports participation are strong.

¹⁷ Generation Content does not refer to a particular age demographic, but a big social trend in which consumers create content professional tools now available at amateur prices (Trendwatching, 2004).

Little research seemed to have been done into dimensions of stratification between South African teenagers. The research of Jeremy Seekings (2003) has addressed stratification between adults in a class analysis that defined and explored differences between classes, post-apartheid. Jan Schenk's thesis (2015) explored the tastes and cultural preferences of Cape Town teenagers and youths in Belo Horizonte, Brazil. His research highlighted the inter-relationships between media consumption, socio-economic status, race and language that (re-) created common structures of difference between teens in the two cities.

My research followed a 'making of' approach to artistic production in which class, race and gender were likely to have a strong impact on the types of cultural capital that teenagers were involved with and curated. Early Bourdieusian cultural sociology focused on competition between adult professionals in creative fields and thus does not account for the impact of age, gender and race on cultural preferences (Schenk, 2015). Nevertheless, the role of each characteristic should be considered when describing the diverse dynamics of stratification (Hanquinet & Savage, 2015. Lamont & Lareau, 1988. Brubaker, 1985).

Such characteristics proved helpful for explaining similarities between Cape Town and Brazilian teenagers' cultural preferences (Schenk, 2015), which often had race and class connotations. Using the example of popular music, Schenk shows that better-off Cape Town students had a higher preference for foreign (mostly American) music than their peers did. White students, regardless of their socio-economic backgrounds, showed more preferences for cultural imports than their black peers did. Music taste was broadly divided by race with white respondents preferring rock and pop and showing a dislike for local house and kwaito. Black youths in township schools were far more likely to listen to local kwaito and house music performers, while afro pop, hip-hop and RnB were more popular amongst blacks in general. Similar, albeit weaker, patterns were observed in Brazilian youths' contrasting racialized affect for global versus local performers and popular music genres.

This analysis of popular music preferences illustrates the divisive potential of popular culture, which continues to be underestimated in the debate on social inequality in South Africa (Schenk, 2015). Its society is constantly re-racialised, which sometimes leads to the erosion of ideological and political notions of race and othering, but also produces new barriers and divisions in popular tastes. As could be seen in the musical tastes of white teenagers, who dissociated themselves from local black music genres. This points to the discourse of *global whiteness*, though which whites, typically English-speaking, associate themselves with successful white middle-class lifestyles elsewhere in the world (Soudien, 2010). Such whites dissociate themselves from black South Africa and have low levels of identification with Africa. By contrast to the cosmopolitanism and cultural omnivorousness that some academics have identified with this form of white, middle-class worldliness and openness, it is actually a highly selective awareness that often excludes local trends and cultural flows (Schenk, 2015). Such disassociation is used to distance whites from the reality of a dominated class with the cultural markers of blackness (or rather 'non-whiteness' in other contexts).

Such disassociation amongst whites is also linked to a deep-seated bias in the media sector in terms of access and associated content (Schenk, 2015). In a society in which broadcast and digital communication media are heavily used, the media can be a significant socializing force for young people's development of cultural capital, joining

the traditional Bourdieusian focus on school and family (Bourdieu, Darbel & Schnapper, 1990). In South Africa, media immersion is a strong marker of privilege in requiring scarce capital for its consumption (as section 2 describes). Some research has been done into how young, visually creative South Africans use varied forms of internet access for developing their media skills (Donner & Walton, 2013) and as aspirant graphic designers (Venter, 2014, 2016). My research contributed to this literature by describing how visual arts students from varied backgrounds curated different artists, genres, domains and neighbourhoods as inspiration or subject-matter in their e-portfolio styles. The influence of young people's racial and ethnic identifications is also examined in what black and white students decided to share.

Complimenting cultural sociology with other lenses

The previous part of the literature review described different approaches to stratification within cultural sociology. By contrast, this part provides the background to complimentary research lenses that can help address important limitations in Bourdieu's theory when used outside schooling and professional creative fields. While Bourdieu's research into creative production focused on adults in particular fields, such as French academic art, this project explored amateur students e-portfolio curations that could range across fields, for example; art, information technology and sport. My research linked the Bourdieusian concept of habitus to social semiotic spaces (Gee, 2005) to show how young people's e-portfolio styles drew on different dispositions and spaces. For example, digital production environments may necessitate high volumes of economic capital for habitual practice (Schradie, 2011). While high costs were likely to prevent marginalized students from accessing such exclusive spaces, affluent pupils might not enter such spaces due to disinterest or inadequate social support.

In addition to exploring teenagers' practices across fields and spaces, it was also important to frame how achievements and shortfalls in students' e-portfolio styles reflected their capabilities. Young people could have very different opportunities to develop their visual creative capabilities and favourite cultural repertoires. Although there is limited scope in Bourdieu's habitus concept for describing people's individual agency (Brons, 2014), Sen's capability approach (1979, 1990, 1992, 2004) can help detail these processes by framing a young person's development of functionings and capabilities for e-portfolio curation. In particular, this approach addresses issues of an individual's *effective power* (their freedom to achieve an outcome and whether that will be respected) and also his or her *procedural control* (the extent to which a person exercises control over the power of choice). Both aspects of capabilities are helpful for understanding whether e-portfolio lessons successfully supported students to achieve e-portfolios that properly reflected their capabilities and might help their aspirations.

Cultural studies is very useful for providing a macro view of cultural reproduction in education by describing how the social order structures and formats situations and practices. However, the Bourdieusian framework's description of how symbolic power operates at the institutional level of fields and the micro-level of habitus, has been criticised in being structurally over-determined (King, 2000). For example, the applied end of Bourdieu's work has largely been concerned with relatively unified *symbolic markets* (Blommaert, Collins & Slembrouck, 2005). A symbolic market (Bourdieu, 1985) defines legitimacy in its particular field through defining symbolic capital, such as recognition and consecration, then exchanging it in respect of individuals' achievements.

Bourdieu's framework can be extended by adding the notion of scales for exploring how symbolic markets are stratified across different scales (Blommaert, Collins & Slembrouck, 2005). A pertinent example from my research is the unified matric exhibition assessment requirements of South Africa's visual arts syllabus. These may be cross-cut on the one hand by provincial-, city- and local school imperatives concerning how exhibitions might feasibly be hosted. On the other hand, visual arts departments and students may have conflicting opinions on the types and formats of artworks that constitute a showcase.

Such scalar dynamics point to the importance of addressing the constitutive role of social interaction (Hallett, 2007). To understand young people's interactions in curating digital personas, my research draws on symbolic interactionism (Cooley, 1902. Goffman, 1959. Blumer, 1969. Mead, 2009. Charon, 2009). This lens describes how interpreting symbols is important for understanding people's social behaviour. My research uses this lens to explore what happens in two very different schools and for describing how students' interactions are characterised by power-differentials that shape their e-portfolio strategies and choices.

Students' styles could be strongly influenced by guidelines and assessment criteria for reproducing classroom personas as visual arts students online. In addition to young people's e-portfolio styles also being affected by material and technological resourcing, the choices they might make are strongly shaped by the options provided by online portfolio software. Digital materialism is helpful for framing how software's use as a semiotic resource can shape its users' choices (Manovich, 1999, 2001). Students developed a *templated self* (Case, 2011) online by exercising their *digital hexis* (Georges, 2007). This concept was proposed by Fanny Georges (2007) to designate a scheme of user self-representations. These self-representations are transformed like a body that is shaped by habit or by repetitive practice. Thus, the notion of hexis bears analogy with the shaping of meaning and body. The extent to which digital identities are produced is drawn from repetitive interactions and continuous perception of self-representations on the screen (Georges, 2009, p.1). E-portfolio curators evidence a digital hexis in their e-portfolio's self-description, imagery and level of organisation. Young people's accomplishments in evidencing digital hexeis via e-portfolio styles are thus closely linked to opportunities for regularly accessing and using digital information infrastructures. Digital materialist perspectives supported explaining how students' curations of templated selves could differ in using the same Carbonmade template and having contrasting digital hexeis.

Neither cultural sociology nor symbolic interactionism provided approaches that could support exploration of the meanings that e-portfolio media and associated productions held for the students themselves. Addressing this was particularly important in my research, since students' differing social backgrounds were likely to contribute to different perceptions concerning the symbolic value of e-portfolios and also the repertoires worth sharing in them. My research followed a social semiotic approach (Hodge & Kress, 1979) by exploring teenagers' interpretations of the meanings associated with their e-portfolio curations.

Developing habituses in social semiotic spaces

The visual arts subject and informal social semiotic spaces

As described in the first part of this literature review, the opportunities for achieving distinction have expanded greatly since Bourdieu first proposed a theory of classed Distinction (1984). Nevertheless, my research resonates with Bourdieu's focus on the assimilation of highbrow, academic cultural capital as the legitimate route to social distinction via formal education. This route strongly informs the visual arts subject foci and the e-portfolio styles that young people were taught. The concepts of legitimate and "unofficial" cultural capital proved highly relevant for contrasting the visually creative personas that youth negotiated. By contrast, attempting to differentiate young people's involvement in high or lowbrow culture across a range of practices would be problematic. The concept of highbrow taste is highly simplistic (Hanquinet, 2016) and in it may be very hard, and even impossible, to distinguish between high-, middle- and lowbrow tastes in contemporary youth culture (Schenk, 2015).

My research explored both the legitimate cultural tastes taught at school and the "unofficial" tastes that youths' e-portfolio styles might also leverage. While all students could join their educator's visual culture learning community (Freedman, Heijnen, Kallio-Tavin, Kárpáti & Papp, 2013), each young person might exhibit different levels of affiliation and involvement within visual art. Issues of membership, participation and boundaries pose challenges to the notion of a community (Gee, 2005). Assuming a classroom "community" in the visual arts subject could falsely imply a sense of belonging for all students. This would ignore those who are actually uninterested in the subject. Black students may also be alienated from a visual arts subject that seldom foregrounds local role-models or indigenous cultural repertoires as legitimate. Students with entrepreneurial interests may likewise be alienated from a subject that ignores the value of craft and other creative industries.

The concept of shared *social semiotic spaces*, which include digital *affinity spaces*, proved most suitable for conceptualising visual creative students' involvement. This concept could accommodate teenagers' diverse interests and their development of visually creative capabilities across varied places.

A focus on the elements of social semiotic spaces allows researchers to query the thoughts, values, actions and interactions within a space, without assuming any one group membership, or membership at all (Gee, 2005). Affinity spaces are a particular form of social semiotic space common for customers in high-technology, capitalist environments (Gee, 2000. Riffkind, 2000). Typically, the customers of businesses in these spaces share a common endeavour and support each other in developing and dispersing knowledge about their shared passion¹⁸. In such spaces, people who may share little else in common, affiliate around a common cause and the practices associated with espousing it. People typically use an online portal to enter an affinity space and to interact with others. My research focused on students who registered with Carbonmade to prepare e-portfolios. Its viewers could use Carbonmade to search¹⁹ portfolios and contact portfolio makers.

¹⁸ The paradigmatic affinity space is composed of eleven features (Gee, 2005), which include being focussed on a common endeavor and providing many routes to status.

¹⁹ The search page at <https://carbonmade.com/examples> lists many roles; Illustrators, Creative Directors, Photographers, Copywriters, Character Designers, Fashion Designers, Fine Artists, Motion Designers, Graphic Designers, Stylists and Architects. The top specialties on <https://carbonmade.com/portfolios> are

Young people develop habituses in formal and “unofficial” spaces

The habitus can be understood as norms, values and dispositions that guide agency or practice (Burke, 2015). Such durable dispositions provide a central component behind self-presentation strategies and social interaction. A habitus lens provided the common concept for my research to address the diverse social semiotic spaces that youths’ e-portfolios might draw on. I follow the examples of other educational researchers who used this lens for considering how marginalized individuals mediate their educational experiences (Czerniewicz & Brown, 2014. Li, 2013. Seale, 2013. Robinson, 2009).

Each person has an *individual habitus* that is a complex mix of assorted habituses, together with certain individual peculiarities (Davila, 2009). Just as young people’s habituses play a role in their acquisition or rejection of varied types of cultural capital, their habituses also comprise contrasting dispositions to particular cultural forms. Habitus grounds young people’s tastes and these preferences become expressed in the cultural forms youth consume and practice with. *Primary, secondary, vocational and informational* types (see Figure 3) typically provide artistic resources for teenagers’ personas:

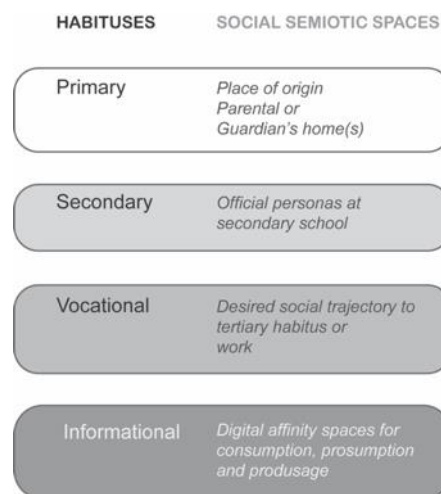


Figure 3. Young people’s habituses and the key social semiotic spaces they sourced cultural capital from

The *primary habitus* is a student’s family environment (Bourdieu & Wacquant, 1992), which is particularly important for their initial exposure and participation in artistic fields (Bourdieu, 1984). Students’ visual creativity is transformed as their individual habitus passes through social institutions, principally secondary and tertiary schooling. These are secondary and tertiary habituses respectively. Vocational habituses are those that shape an individual’s orientation towards developing a particular identity in a professional field (Colley, James, Tedder & Diment, 2003). For example, a visual art student’s observational drawings may realise certain disciplinary dispositions demanded of a fine artist. My research also considers the role of each teenager’s information habitus (Robinson, 2009) for describing how young people’s internet access and skill development are mediated by orientations. Well- and under-resourced students typically have contrasting stances in using the internet, which reproduces digital inequality by shaping contrasting patterns of use.

listed as; 3D Modeling, Advertising, Animation, Apparel Design, Architecture, Character Design, Concept Art, Copywriting, Creative Direction, Editorial Design, Fashion Design, Fashion Photography, Graphic Design, Illustration, Interior Design, Logo Design, Motion Design, Photography, Product Design, Textile Design, Typography and Web Design.

Contrasting opportunities and capabilities

Linking a capability approach to Bourdieusian theory can help to address particular limitations of the latter (Brons, 2014), and vice-versa (Bowman, 2010). Bourdieu's conceptualization of habitus disregards the autonomy of actors, considering the dispositions that make up their individual habitus to solely be the process of economic and social processes (Alexander, 1995). Such an emphasis on the dominant role of external factors, such as capital, in determining the individual's habitus leaves little space for describing an actor's autonomy and creative agency (Brons, 2014).

Linking cultural sociology to a capability approach has proven useful for public service developments and theorizing social change, for example in education (Mills, 2008) and health (Abel & Frohlich, 2012). Research that closely resonated with mine used the same combination to develop a model (Gokpinar & Reiss, 2016) that connected students' scientific capability development to key out-of-school factors. Affluent young people's development of visual creative capabilities was likely to also rely on outside-school factors. These could provide an initial set of visual creative resources and assistance with converting resources into capabilities.

Sen's capability approach focuses upon the moral significance of each individual's capability to achieve the kinds of lives he or she has reason to value (Wells, 2012). Rather than applying the narrow economic framework typically used for development, Sen's approach proposes that a person's capability to live a good life be defined in terms of the set of valuable 'beings and doings' to which he or she has access, such as enjoying good health and loving relationships (Sen, 1990). With regard to individual agency, a capability approach emphasizes *capability sets*. These refer to what individuals are actually free to be and to do (Brons, 2014). The concepts of *functionings* and *capability* describe what people can actually do (Wells, 2012). Functionings are states of 'being' and 'doing' and are distinguished from the commodities employed to achieve them. Capability refers to a set of valuable functionings that a person has effective access to and has reason to value.

A focus on capabilities supports an analytical focus on the sets of functionings related to particular aspects of life. As elaborated in Chapter Five, my research explored functionings related to e-portfolio curations that support self-promotion and desired social trajectories. Traditionally, people working in visually creative professions have used portfolios to demonstrate their level of experience, skills and creativity for self-promotion (Pibernik, Dolic & Kanizaj, 2014) and as an aid in job interviews (Myers, 2013).

Bourdieusian sociology recognises that individuals have contradictory goals and conflicting pressures (Townsend, 2002), hence are likely to prioritise different functionings in response to the visual arts education field and the e-portfolio syllabus. For example, young fan artists may well choose to foreground this identity in preference to a classroom one. They would value sharing their fan art, fandom inspirations and attributing fan artist role models. They may want their e-portfolios to be searchable and facilitate feedback from like-minded enthusiasts. They may also choose to link their e-portfolios to other digital personas. My case studies explore the different aims and functionings of young peoples in presenting varied disciplinary e-portfolio styles (see Chapter Five) and unofficial ones (see Chapter Six).

For each case study, Sen's capability approach is usefully complemented by Bourdieu's concepts of field, capital and habitus. This helps provide more finely grained insights

into the processes and experiences of inequality (Bowman, 2010). My research was interested in addressing inequalities in online content creation²⁰ through social change. However, Bourdieu's concept of habitus is insufficient with regards to the role of individual agency in effecting structural change (Sewell, 1992. Abel & Frohlich, 2012). He did not elaborate explanations of such change, nor did he provide explicit starting points for theories on how to reduce social inequalities through strengthening agency and individual empowerment.

In the South African educational field, researchers have used Sen's capabilities approach for studies in primary- (Vaughan, 2007), secondary- (Unterhalter, 2003. Walker, 2006), tertiary- (Vaughan & Walker, 2012. McClean & Walker, 2012. Wilson-Strydom 2011) and vocational education (Powell & McGrath, 2014). Studies have also concerned informal settlement schools (Maarman, 2009), the DOE (Dieltiens, Unterhalter, Letsatsi & North, 2009) and government's response to the Millenium Development Goals related to gender and education (Unterhalter & North, 2011).

Overall, the researchers show how the capabilities approach is helpful for addressing knowledge gaps in local education. This approach also serves as a source of ideas useful for supporting social change, such as addressing omissions in educational policy. In relation to e-portfolio research, a capability approach could help frame the capabilities and functionings that young people were expected to, but unable to achieve. For example, students' lack of internet access could prevent them from making sufficient representational choices to achieve a showcase, thereby potentially undermining their desired social trajectories as graphic designers.

Symbolic interactionism and interactions

My research followed the example of a few sociologists (Blommaert, Collins & Slembrouck, 2005. Hallett, 2003, 2007. Huot & Laliberte, 2015), who have related Bourdieu's sociological approach to Goffman's concerning performative aspects of identity. Social interactionism's focus on the micro-picture in self-presentation connects well to culturally ingrained habits of presenting oneself depending on one's history. Synthesizing these approaches enabled an exploration of how students' different digital identity performances reflected negotiations of the collapsed context of digital exhibition spaces. I drew on Goffman's works concerning identity performances and impression management (1959, 1963) to address youths' digital identity performances and social interactions.

The Symbolic Interactionist perspective can be summarized as; people act towards things based on the meaning that those things have for them; and these meanings are derived from social interaction and modified through interpretation (Blumer, 1986). Symbolic interactionism's focus on how human interaction is mediated through the use and interpretation of symbols and significations has provided a useful perspective for a variety of settings in the communication field (Engström & Middleton, 1988). Here it has primarily studied aspects of social interaction and individuals' selves. These have included studies of online communities encompassing identity (Bromberg, 1996; Donath, 1999), online community as a social reality (Watson, 1997), personal homepage design (Miller, 1995. Cheung, 2000) and artists' websites (Pariser, 2000).

²⁰ Online content creation is a term that describes the use of online spaces (often, but not always, commercial) where users are encouraged to create and share content (Brake, 2013).

Students were encouraged by their educators to create a *nonymous*²¹ (Zhao, Grasmuck & Maltin, 2008) disciplinary identity. Such anchored visibility entails that social interactions and identity management for each student resembles a *presentation of self* (Goffman, 1959). *Self-presentation* is described as occurring when individuals seek to satisfy impulses by making identity claims using sign values to evoke responses in interaction with others (Schwalbe, 1993). This dramaturgical approach has extensively been used within symbolic interactionism's studies of social media (Hogan, 2010). Self-presentation uses a metaphorical technique to describe how an individual in everyday interactions presents an idealized, rather than an authentic, version of one's self. The metaphor considers life as a stage of activity, in which individuals engage in performances before a particular set of observers. A performer's continuous stage presence (or 'situation') and his or her audience's feedback influences the performer's behaviour.

Digital materialism

By contrast, a person's digital self-presentation takes place in an asynchronous environment, which are best conceived as virtual exhibitions (Hogan, 2010). Bernie Hogan's distinction between synchronous performances in "situations" and asynchronous "exhibitions" via artifacts is useful for contrasting the process of digital self-presentation through preparing a user-identity is very different from the signs of embodied self-presentation. In physical reality, one's body is an absolute clue of existence (Goffman, 1959). By contrast in the 'digital' one it is not, because you are consulting a website that requires user input for his or her persona(s) to take existence (Hogan, 2010). Here each user must first take existence via adding identifiers to a web profile that communicates one's online identity (Georges, 2007). Identifiers are facts that distinguish individuals or entities from one another (Harper, 2006).

The identifiers in a multimedia exhibition are created from a database (Manovich, 1999, 2001). This insight from digital materialism research helped to frame how online portfolio software's use as a semiotic resource could shape students' choices. In the case of a Carbonmade online portfolio, each user's choices are archived in a database and referenced by algorithms when the software as virtual curator makes rendering decisions to show each online portfolio page in the viewer's web browser. Users make choices via Carbonmade's graphic user interface (GUI) pages. For example, its GUI offered users the following top-level navigation options: *Projects*, *About*, *Personalise*, *Settings* and *Upgrade!* Their order foregrounded making meaning through; organizing artworks, defining one's self-presentation and becoming a subscriber.

In using Carbonmade to express an identity, a student developed a *templated self* (Case, 2011). This digital self is produced through Carbonmade's participation architecture, whereby a digital representation of users' identities results from filling out a user interface with personal information. The shape of this space affects how its users can navigate it, what they do and how they might interact with others. It also defines their style of influence on others and identity constraints.

As introduced in Chapter Two, by constructing digital personas via Carbonmade, or other online services, young people developed digital hexeis (Georges, 2007). The digital

²¹ A 'nonymous identity' is one that is anchored to one's identity in real life (Zhao, Grasmuck & Maltin, 2008). For example, a user of Facebook is typically expected to present his or her nononymous identity. By contrast, in anonymous online environments the use of pseudonymous identities is the norm. The cultural expectation in such spaces is that one's online identity need not correspond to one's offline identity (Gatson, 2011).

hexis of a video-gamer, for example, describes the process of investment initiated by a player to take existence in a computer game's world (Mauco, 2009). The hexis is analogous to the shaping of meaning and body, since the extent to which digital identities are produced is derived from repetitive interactions and continuous perception of self-representations on screens.

Social semiotics research and teenagers' e-portfolio styles

A social semiotic framework was used to establish connections between each student's; perceptions of the extended social context, textual meanings, resources, and interests as sign-maker. While social semiotics originally focussed on the use of language as a semiotic resource, it later shifted to other semiotic systems (Hodge & Kress, 1993. Kress & van Leeuwen, 2010). This led to the emergence of *multimodality*, an inter-disciplinary approach that understands communication and representation to be more than about language (Jewitt, Bezemer & O'Halloran, 2016). My research did a multimodal analysis of students' semiotic ensembles. These could span varied socially and culturally shaped resources for making meaning (or modes) that might include text, imagery, layout, moving images, colour and navigation.

Multimodality was developed to systematically address much-debated questions about changes in society, for instance in relation to new media and technologies (Kress, 2010, p. 22). Embracing a variety of communicational means as worthy of investigation constituted a challenge to the prior predominance of spoken and written language in academic work. This challenge opened up possibilities for recognizing, analysing and theorizing the variety of ways in which people make meaning, and how those meanings use interrelated modes.

This project explored multimodality in students' use of digital media in class: I followed the example of Jewitt (2006) who used multimodal analysis to explore how changes in classroom technology influenced the representational and communicational meanings made by students. My research also benefited from insights of multimodal researchers in curricular settings. In particular, their research highlighted the importance of student agency in the use of web design for representing curriculum-related and "unofficial" capitals (Walsh, 2007) and also the importance of teenagers' self-chosen activities with contemporary technologies (Björkqvall & Engblom, 2010).

Students' own interests as sign-makers (Kress, 1997) are an important influence in composing texts from the cultural resources available. Even when creating texts for prescribed school assignments, the signs (texts) students produce are always created in light of their interests, cultural histories and subjectivities. Sign making is always a personal process, even where the content is not overtly personal. For a learner, the 'interest of the sign maker' is his or her identity in practice, which can be traced back to the ways of being and doing in the world (Pahl & Rowsell, 2007, p. 392). Each creator sediments fundamental aspects of his or her identity, or fractal bits of habitus, into the multimodal texts they prepare. Since teenagers could draw on a wide range of identities, it was important to understand how youths orientated themselves to publishing digital portfolios and the potential meanings of their publication choices.

My research described the messages that students wanted to communicate about themselves through e-portfolio styles that showed (or hid) teens' use of *semiotic resources*. In curating e-portfolios, students may be involved in the design of webpages using Carbonmade and the self-curation and digital translation of imagery and texts

from varied social semiotic spaces. These provided an e-portfolio's semiotic resources, a key term in social semiotics (Halliday, 1978. van Leeuwen, 2005. Kress, 1996, 2003, 2010). This notion originated to reflect Halliday's argument that the grammar of language is not a code, nor a set of rules for producing correct sentences, but a resource for making meanings. Social semiotics posits that this grammar applies not just to language, but other semiotic modes (such as image and colour) too. Semiotic resources are defined as actions and artefacts used by us to communicate either physiologically (such as with gestures) and/or by means of technologies (such as with online portfolio software). Traditionally, these were termed 'signs' as a fundamental concept of semiotics. In social semiotics the term 'resource' is preferred to avoid the impression that what a sign stands for is somehow pre-given and not affected by its use (Kress, 2010). Social semiotic theory emphasizes that signs are integrally related to concrete forms of social interactionism, without which these signs cannot exist.

Material and technological inequalities

The social scientific and economic literature suggests that inequalities can be categorised into technological-, material-, immaterial-, social- and educational types (van Dijk, 2013). Although each type would be expected to be found in observing the ICT networks that my action research project compelled e-portfolio curators to use, I focused on the technological and material aspects in the network society²². My fieldwork was unusual in exploring how a range of students' histories of access and use of ICT infrastructures shaped contrasting curations of digital personas:

New media researchers have predominantly focused on well-resourced, extra-mural environments where young people can readily pursue self-initiated digital identity projects and productions (for example, Ito et al. 2010). Unlike such projects, mine investigated student work that spanned formal and extra-mural social semiotic spaces. Compared to other research projects, these participants were moreover unusual in potentially including three different sources of artefacts. Students could remediate classroom, co-curricular or "unofficial" artefacts in varying combinations. In remediating these artefacts, students were very reliant on two key digital infrastructures, namely digitization equipment and the internet.

Access to and use of digital media and online communication may be a pervasive part of privileged youth's everyday lives (Pew Internet & American Life Project, 2005) in well-resourced settings. By contrast, in a highly inequitable society, the ability of young people to digitally communicate aspects of themselves may differ significantly due to differentials in their access to digital production spaces and associated information habituses. Since the life circumstances of teenagers could either limit or increase their abilities to use ICT (Kvasny, 2006), my research linked young Students in Cape Town's information habituses to their use of ICT infrastructures. These included both e-portfolio curation and media practices youths remediated at school or elsewhere.

Immersion in media, such as ICT networks, is a privilege and there are many different forms of immersion. Online content creators tend to be from relatively privileged groups (Blank, 2013), both globally and in their national contexts. The internet has made it easier for those in well-resourced settings to share their productions in varied domains

²² The network society is an addition to the concept of the information society in which the changing substance of activities and processes in contemporary developed societies is emphasized. In the concept network society, attention shifts to the changing organisational forms and (infra)structures of these societies. The concepts of the network and the information society are inextricably connected (van Dijk, 1999, 2006).

with others and to collaboratively make interesting, informing and entertaining spaces (Gauntlett, 2011). Many teenagers are deeply immersed in self-presentation activities on the internet (Doster, 2013) and are taking advantage of cheap digitization technology (Howe, 2009) to increasingly use Web 2.0 services to produce and publish creative productions online (National School Boards Association, 2007), often engaging audiences outside formal contexts (Pew Internet & American Life Project, 2005). Research from the Global North shows youth creating, manipulating and sharing content online (Ito et al. 2010). These youths are leveraging a more social and participatory internet (Jenkins, 2006, p.) as a novel medium to present themselves and connect with others concerning their creative productions (Gauntlett, 2011). Globally, researchers have shown how young people are able to leverage digital media and networks, later turning their online interests into careers (Ito et al. 2010).

Digital content production by Cape Town students has been researched in diverse medias, including; blogging (Cronjé, 2012), digital storytelling (Barnes, Gachago & Ivala, 2015), podcasting (Ngambi & Lombe, 2012), video editing and production (Deacon, Morrison & Stadler. 2005. Cronjé, 2010), computer gaming (Walton, 2008. Venter and Walton, 2011. Pallitt, 2012. Pallitt and Walton, 2012, 2015), wiki-based e-portfolios (Horwitz & Hodgkinson-Williams, 2010) and MA in Online Learning Design (Deacon & Hodgkinson-Williams, 2013). Overall, such research seems to be trendy in focusing on local educator and students' agency with new educational technologies. Most of these researchers focused on well-resourced environments, perhaps because their focus was on learning with "cutting edge" technologies.

By contrast, local researchers who have explored digital media production in under-resourced contexts have elevated the importance of differential access to infrastructures influencing digital productions. These include; smartphone filming and editing (Walton, Marsden, Hassreiter & Allen, 2012), music making (Haupt, 2008, 2012. Pritchard & Vines, 2013, Schoon, 2014, 2016) and mobile phone story writing (Botha, Vosloo, Kuner & van den Berg, 2011. Vosloo, Walton & Deumert, 2009.) Researchers have also explored young adult Cape Town students' media practices and development of emergent creative identities via disparate medias in well- to under-resourced settings (Brown, Czerniewicz & Noakes, 2014. Donner & Walton, 2013. Venter, 2014.) Their overall findings described how youths' digital content creation is hampered by infrastructural inequalities, leading to novel work-arounds. Researchers identified that technologies which might seem similar can be appropriated very differently due to the politics of inequality, which changes people's relationship to technology. For example, sharing mobile phones between peers and partners is often a social norm in low-income neighbourhoods (Walton et al. 2012).

Such research confirms that the benefits of youths' digital content creation are not diffused equally to all (Robinson, 2009). For marginalized Cape Town students, shifting participation from social sharing while hanging out, to messing about with creative interests online and then attaining geeky professional vocations is no small matter. These youth face obstacles without ready access to digital infrastructure or the requisite economic and cultural capital of the middle class. In particular, home internet access is a major marker of privilege in South African households (Statistics South Africa, 2012). Most of its young people (particularly in government schools) are from homes without internet access. Consequently, under-resourced youth rely on public services for Internet access (Donner & Walton, 2013). Consuming or sharing media files is heavily constrained for poor South African mobile phone users by the steep costs of 'out-of-contract' internet

access (Goldstuck, 2016). Such teens confront significant obstacles to digital content creation and self-publication in digital networks (Brake, 2013).

Digital divides or gaps in participatory culture?

Given such differences, Cape Town students' digital content creations were likely to be influenced by *digital divides* (van Dijk, 2005). This term is a popular interdisciplinary concern and has been defined in many ways due to factors such as scholars' different fields of study and related conceptual understandings (Mwim & Kritzinger, 2016). The dominant views of the digital divide have primarily focused on; information devices and their users, skills and literacy or geographical differences. Digital divide research often suggests *deficit models* of attainment for groups underserved by information and communication technology (Selwyn, 2004), such as black minorities in the United States. Such models describe these groups as lacking; material access, mastery of digital practices and literacies, or the value systems to promote the educational achievement necessary to acquire base proficiency in digital systems. By contrast, I preferred examples that foregrounded cases where black youths' articulation of cultural capital mediated through technical prowess countered deficit models (Brock, Kvasny & Hales, 2010. Donner & Walton, 2013).

Such an approach was also similar to the strategies of those North American researchers (Jenkins, et al. 2006, 2008. Jenkins, Ito & boyd, 2016) who are interested in young people's involvement with *participatory culture* (Jenkins et al. 2006, p. 3). With relatively low barriers to artistic expression, this culture strongly supports creating and sharing one's productions, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices. Such creativity may feature very different approaches in the appropriation educational technologies (Jenkins, Ito & boyd, 2016, p. 67), which a narrow focus on digital divides would miss. E-portfolio curation is arguably a form of participatory culture as students are taught and mentored to share their productions.

Proponents of participatory culture advise that researchers must pay attention to the *participation gaps* (Jenkins et al. 2008) or *participation divide* (Hargittai & Walejko, 2008) that may occur. This divide comprises different layers, which include digital access (Jenkins et al. 2008). The participation gap is the unequal access to the opportunities, experiences, skills, and knowledge that will prepare youths for full participation in future society. Participatory gaps may occur at various layers for students from contrasting social backgrounds (Jenkins, Ito & boyd, 2016). Such participatory gaps may include infrastructure, access to skills and empowerment via mentorship and support structures (Jenkins, Ito & boyd, 2016). Gaps may also exist in self-confidence and empowerment, which links to online sharing and the gig economy. My research combined Bourdieu's cultural sociology framework and Sen's capabilities approach to develop a comprehensive framework that accounted for the varied layers and participation gaps in students' e-portfolio curations (see Chapter Seven).

Young people's digital curations and artistic personas

In media studies research, the closest example I could find to my own focus in combining student identities and secondary school infrastructure, was a project which argued for a new 'curatorship of self' (Potter, 2012. Potter & Gilje, 2015). Potter's study focussed on the video productions of primary school students, who were on the cusp of leaving for high school. He used symbolic interactionism, cultural theory and multimodal analysis to describe his students' video productions. He found that students'

digital video production practices are an active set of literacy practices that could be gathered together under the metaphorical conception of 'curatorship' as a new literacy. While Potter's study proved helpful, it focused on video productions and did not involve curations that spanned highly dissimilar digital infrastructures.

There is little research published on visual arts students' e-portfolio styles. However, there are many books advising visual creatives on how to design digital portfolios (Romaniello, 2002. Eisenman, 2006. Baron, 2009. Clazie, 2010. Rowe, Will & Linton, 2010. Myers, 2013. Bender, 2008). Research that matched my fieldwork's focus on art students' development of digital personas were Dr. Karin Hansson's (2010, 2015) and Associate Professor Juan Carlos Castro's (2014).

Hansson investigated Stockholm university art students' use of varied online media for establishing identities in arts fields (2010, 2015). Her exploration of young visual artists' online identity management found that art students at Stockholm's Royal Institute of Art negotiated competing ideologies in choosing online identities that range from the seeming inaccessible institutional artist icons of the art world to networking agents experienced in different art worlds and genres (Hansson, 2010). Most art students followed a strategy of maintaining the norms and practices of prestigious galleries in minimalist online portfolios with academic language and avoiding online participatory contexts (Hansson, 2015). A few artists departed from such conventions in seeking online collaborations and moving outside fine arts galleries, but they did not gain recognition or grants from important galleries.

Research by Castro (2014) also resonated in describing how arts students performed anonymized identities in an online art social network linked to the arts curriculum. He found that this type of identity performance and its perception by others played an important role in either motivating teenagers or in them becoming disengaged. The participation of his teenage volunteers was very different to my study. He had 15 volunteers from grades 9 to 12, who were taught to create anonymous identities on a custom social network over one school term.

Other researchers have focused on visually creative students' usage of particular e-portfolio platforms (Wen, 2003. Chou, 2005. Dorn & Sabol, 2006. Lu, 2006. Lin, Yang, Hung & Wang, 2006), student web galleries (Burton, 2010) and the integration of digital media into the visual arts subject (Lu, 2007. Örtégren, 2014. Marner, 2013. Marner and Örtégren, 2013.). These educational researchers' focus on implementation and assessment was very different from mine in that I investigated how students' contrasting e-portfolio achievements reflected inequality.

Chapter summary and analytical framework: cultural and educational sociology, social interactionism and social semiotics

This chapter described the key literature informing my research into e-portfolio styles and the diverse contexts that students' habituses drew on. To frame young people's curations, it proved necessary to pool insights from diverse research lenses of cultural and educational sociology, social interactionism and social semiotics. Combining these three lenses enabled the similarities and differences in students' e-portfolio styles to be contextualised within their contrasting circumstances: Educational sociology framed how students were expected to assimilate and remediate dominant cultural personas in visual arts education. Teenagers could also add informal personas and differentiated

practices. Cultural sociology provided a framework to link such personas to broad social inequalities in teenagers' lifestyles. A social interactionism lens supported an exploration of the meanings that visual arts showcase e-portfolio curation held for teens. Individuals' strategies and digital curation selections were investigated using a social semiotics lens.

The three lenses were complimented with related literature from media studies, digital materialism and infrastructure studies: Young people may have very different opportunities to articulate digital personas, so their productions are framed using Sen's capability approach. Media studies provided insights into digital curation and young Cape Town students' differential access to digital media production. The technological inequalities that local teens faced in their varied digital media ecologies are framed using infrastructure studies and divides in participatory culture. Digital materialism described how students' curation choices were both enabled and constrained by Carbonmade's GUI. Teenagers' opportunities to articulate digital personas could also be strongly shaped by other material inequalities in their lifestyles. To situate how material advantage surfaced in e-portfolio styles, young people's digital personas and habituses were mapped onto social semiotic spaces. The next chapter details and provides a rationale for the research methods used for studying students' e-portfolio styles and circumstances.

Chapter 3: Methodology

Overview of research methodology

My research project used a mixed methods research approach (Brewer & Hunter, 1989) to develop a broad view of the project's research problems. As social research comprises many different levels, different methodologies were selected for their particular strengths in relation to select levels. Using multiple methods to study the same problem provided a broader perspective on students' complex social worlds. This approach supported a better understanding of the phenomenon (Terre Blanche, Durrheim & Painter, 2006), whilst also potentially correcting to some extent the errors of each method (Du Bois, 1899). Further, the convergence of multiple methods upon a single conclusion may better support that inference than just one of those methods arriving at that outcome (Heesen, Bright & Zucker, 2014).

The primary objective of this project was to use an action research approach (Lewin, 1946. Hearn, Tacchi, Foth & Lennie, 2009) in order to help schools introduce e-portfolio curation in their visual arts curricula. The action research project enabled young peoples' varied e-portfolio styles to be documented for content analysis. A range of teenagers' e-portfolios that featured very different cultural and leisure repertoires were explored via case studies. Each linked the divergent digital personas that youth curated to the social semiotic spaces and resourcing necessary to support such repertoires.

This chapter introduces each method and its contribution. The choice of research sites and related ethical considerations are described, followed by a description of the action research project and the curricular appropriation of e-portfolios. An overview of the 29 participants is provided. Each method is then described in detail. The study's analytical aspect comprised four phases; a screenshot content analysis of all students' e-portfolios (1), individual interviews with fourteen students (2) and the development of twelve diverse case studies (3). A closing stage addresses the ethical challenges in sharing young people's e-portfolio styles (4), as well as a shift to using a CAR approach. The chapter closes by discussing the strengths and weaknesses of multiple case study methodology in the project.

Rationale for methodology

A multi-method, qualitatively driven approach (Christensen, Johnson & Turner, 2011. Teddlie & Tashakkori, 2009) was used to describe how young people's different e-portfolio styles reflected teenagers' contrasting circumstances. This approach comprised; participant observation, content analysis and interviews. Participant observation documented the introduction of e-portfolio curricula. Content and multimodal analysis was employed to describe semiotic variations in students' choices. Interviews explored different curation strategies and how teenagers' digital personas manifested participation in varied social semiotic spaces.

The research methodology followed the examples of Potter (2012) and Potter and Gilje (2012). Both combined cultural studies with multimodal analysis for exploring young people's video curations. My description of students' e-portfolio decisions is similarly situated within the broad tradition of multimodal analysis (Jewitt, 2009. Jewitt, Kress & Mavers, 2009. Kress, 2010. Kress & van Leeuwen, 2010). Multimodality is an interdisciplinary approach that understands representation and communication to be about

more than language. Multimodal analysis focuses on all modes of communication as part of meaning and aims to systematically address much-debated questions about changes in society, for instance in relation to education and new media technologies (Jewitt, 2009).

Such a multimodal content analysis and classroom research allowed me to act as a teacher-as-researcher exploring the social context of schooling (Cross and Harris Steadman, 1996). By contrast, broadly textual analysis methods analyse the significance of the language and media young people produce (Bezemer & Jewitt, 2010. Jewitt, 2009. Kress, 2001). Multimodal analysis, which was originally heavily text or media focussed (Erickson, 2004. Bazalgette & Buckingham, 2013), increasingly draws on the methods of cultural studies to address both the social context and significance of young people's digital media practices and visual creativity (Buckingham, 2003, 2008, 2013. Whitin & Whitin, 2012. Jewitt, 2006. Burn & Parker, 2005. Burn & Durran, 2007. Burn, 2008. Wright, 2007. Sefton-Green 1999, 2005, 2006.)

Innovative, multi-method research approaches are essential for studying young users' digital media practices (Vittadini, Carlo, Gilje, Laursen, Murru & Schröder, 2012). Consequently, this action research project followed a participatory ethnographic approach to classroom research (Angelo & Cross, 1993. Cross & Steadman, 1996. Angelo, 1998. Nilson, 2010). Fieldwork supported educators in the design of e-portfolio lessons. I collected data and studied the behaviour of participants in e-portfolio classroom settings on an ongoing basis.

A classroom ethnography was combined with multimodal methods of analysis (Buckingham, 2003, 2008, 2013. Kress, 2005, 2010. Jewitt, 2008, 2009. Bezemer & Kress, 2008. Burn, 2004, 2005, 2008. Sefton-Green, 2005, 2006) to explore the significance of discipline, identity, infrastructures and related resources in young people's visual arts students' e-portfolio styles. The insights that resulted were used during the longitudinal fieldwork for recommending changes to the e-portfolio teaching at both schools.

Ethnographic researchers focus on the cultural interpretation of behaviour and they aim to provide a description and an interpretive-explanatory account of; what people do in a setting, the outcome of their interactions and the ways they understand what they are doing (the meaning interactions have for them) (Watson-Gegeo, 1988). Classroom ethnography applies this approach in formal and semi-formal educational settings. It emphasizes the sociocultural nature of teaching and learning processes, incorporates participants' perspectives on their own behaviour, and offers a holistic analysis sensitive to levels of context in which interactions and classrooms are situated (Watson-Gegeo, 1997).

Research method introduction

My analysis involved four phases: the first involved a content analysis of all 29 students' choices; the second analysed individual students' choices and questionnaire feedback to shortlist eighteen from whom twelve were selected for case studies; and in the third phase I prepared case studies for a cross-section of students. The fourth phase addressed the ethical challenges in sharing young people's e-portfolio styles and my shift to using a CAR approach.

My collection of material in many forms and from diverse sources constituted triangulation as it enabled me to check my position against the use of multiple perspectives from diverse cases. *Triangulation* was used to enhance the credibility

(Cohen, Manion & Morrison, 2013) and confidence in this project's findings. A *methodological* type of triangulation (Denzin & Lincoln, 2011) involves several methods of gathering data to study a single problem. Convergent evidence was sought from distinct sources. This largely involved using participant observation and content analysis methods to investigate my major research questions. Qualitative methods of webpage content analysis, questionnaire and interview feedback were triangulated to check that results were consistent across sources. This supported a credible account for how teenagers' contrasting impression management strategies and assorted material contexts shaped their e-portfolio styles.

Participant observation

Cultural studies (Hoggart, 1957. Williams, 1958. Hall, 1983) foregrounds the importance of cultural agency and contextual meaning. Consequently, researchers in this tradition often adopt broadly ethnographic approaches. My media study observed 29 students' process of e-portfolio curation. It documented and analysed their choices at different stages of production and interviewed them about their sources of cultural capital. This approach supported the contextualisation of students' e-portfolio styles, which could remediate a wide range of social semiotic spaces.

Content analysis

Content analysis (Neuendorf, 2016) of e-portfolio screenshots enabled me to describe young people's changes to their self-presentations and portfolio curations over time. A strength of this approach was its support for longitudinal research into teens' creative personas and the social semiotic spaces they drew on. This was important in manifesting broader social enablers and constraints at both sites and outside schools that a focus on individual productions in once-off projects would miss. The varied personas that teenagers translated are further contextualised using a social semiotic approach for describing how each e-portfolio style reflected its author's interests as sign-maker and objectives for identity projection in support of particular relationships. This served to contextualise how and why adolescents' choices foregrounded disciplinary and/or "unofficial" repertoires.

Case studies

"Unofficial" personas drew on differentiated consumption and production practices in home-, vocational and digital information spaces. Such personas presented an analytical opportunity to use sociology for showing how digital personas leverage varying combinations of capital. A range of pupils at each site was chosen for multiple case studies (Stake, 2013). Three independent school and two government school students who spotlighted their disciplinary personas are described in Chapter Five. Seven cases of young people who instead foregrounded "unofficial" personas are detailed in Chapter Six.

Research method contributions

The application of a multimodal perspective to digital technologies is in its infancy in South Africa (Archer & Newfield, 2014) and there were few classroom ethnographic researchers of a similar focus, whose research process I could follow.

Three methodological innovations to multimodal analysis were necessitated in my research project: First, an action research approach (Lewin, 1946. Hearn, Tacchi, Foth & Lennie, 2009) assisted educators with developing and teaching e-portfolio curricula. Second, the fieldwork at two sites supported a longitudinal study through observing four

years (2010-13) of e-portfolio lessons. Third, two case studies were prepared using my fieldwork sites to highlight the importance of both literacies and infrastructure.

Introducing three methodological innovations

1. Action research innovation

The use of educational action research is highly relevant in the South African context, where there is considerable scope for its approach to contribute to knowledge generation and the dimensions of social justice, and personal and professional development (Noffke & Somekh, 2009). In formal digital media education, it can serve as paradigm of change (Keiny & Orland-Barack, 2009) that helps make a difference to the inequalities manifested in the types and extent of online practices that are linked to gender, culture and economic background (Tustin, Goetz, Heydenrych & Basson, 2012). Action research can also combat the relatively poor educational outcomes and post-school prospects of South African students (Bloch, 2009).

My research responded to this opportunity and made a difference at both sites in the professional development of visual arts educators and students by teaching both about online portfolios, e-portfolio curation and related resources for self-publication (Noakes, 2011, 2012, 2013). Here, I partnered with two educators to address the online disenfranchisement of their students. As discussed in Chapter One, most students in Cape Town are disenfranchised in not being taught curation, which is an important new literacy practice (Potter, 2012). I also made a broader contribution in sharing the refined e-portfolio curricula at <http://www.travisnoakes.co.za/p/online-portfolio-lessons.html> on my research blog. This was linked from the DOE's Department of Visual Arts website. An important rationale for sharing this curricular knowledge (Waldburger, 2014) was that it might assist other educators and students with developing new media literacies. My other online publications included presentations (www.slideshare.net/TravisNoakes) and research profiles on Academia.edu (<http://uct.academia.edu/TravisNoakes>), Google Scholar (<https://scholar.google.co.za/citations?user=-beyzEoAAAAJ&hl=en>) and ResearchGate (https://www.researchgate.net/profile/Travis_Noakes).

2. Longitudinal research innovation

Teenagers' development of visual creative identities seems similar to that of visual artists (Norris, 2012) in being a long-duration process that is better suited for longitudinal study. My research fieldwork is unusual amongst multimodal studies because of its lengthy nature. The study spanned three years (2010-12) at an independent school and two years (2012-2013) at a government one. Unlike many multimodal studies, mine was thus able to explore diachronic changes in students' digital designs through a screenshot analysis. This enabled my research to make a methodological contribution in proposing a novel diachronic screenshot analysis. As a result, some of my data is at least five years old and a few of the "unofficial" online services used by my participants no longer operate (most notably the mobile instant messenger app Mxit, which closed in 2016). Although some of the data is old, it was still pertinent for e-portfolio research focussed on how students' different strategies and circumstances shape their negotiations of digital disciplined and informal identities.

3. Different levels of resourcing

Few research projects have used a multimodal analysis to focus on more than one schooling site. Examples of multiple site studies included van Leeuwen, 1998. Bourne and Jewitt, 2003. Jewitt, 2005. Kress, 2005. Stein, 2007. Kendrick, Jones, Mutonyi and Norton, 2006. Noakes, Walton, Venter and Cronjé, 2014. For this reason, it is valuable that I have investigated two very different schools.

Action research for the creative appropriation of e-portfolios

The popular use of Web 2.0²³ services, such as social networks, has led to a key transformation in contemporary culture. An insistent demand has emerged that digitally connected individuals should construct a public, mediated persona (Marshall, 2015) as an essential part of their cultural work. Social networks, such as Facebook, encourage users to define public, digital personas, which are monitored by others. Visual arts educators have only recently started teaching their students to use online production and distribution methods, enabling young people to formally experiment with presenting professional (artist or art student) identities. The recent creative appropriation of online portfolio software media thus created a research opportunity for me to explore youths' digital personas and contrasting situations.

The launch of e-portfolio lessons was made possible by three technological trends that have significantly lowered the cost of digital portfolio creation; first, relatively cheap ICT equipment (Howe, 2009) is available for scanning and photography. Second, some South African secondary schools benefit from broadband access (Department of Communications, 2013) and, third, the emergence of online portfolio services offering free hosting as part of a 'freemium' business model²⁴ (Anderson, 2009) have significantly lowered the cost and technical barriers to the creative appropriation of e-portfolios.

Introducing action research

Action research (Lewin, 1946) is a research method that is widely used in New Media Studies (Hearn, Tacchi, Foth & Lennie, 2009) as a particularly valuable one to develop, research, evaluate and manage projects. Action research methods are well-suited for exploring teaching environments where innovation and change are continual and where processes and outcomes are usually not predictable and often involve fuzzy and emotional human parameters (Hirschheim, 1985). Such methods were well suited for exploring the creative appropriation of e-portfolios at schools.

As a generic term, action research spans a broad range of methodologies and approaches. These approaches all share tactics that focus on simultaneous action and research in a participative manner (Coghlan & Brannick, 2014). In addition to CAR (Carr & Kemmis, 1986) they include; action research in organisation development (Lewin, 1946), participatory action research (Freire, 1970), action science (Argyris, Putnam & Smith, 1985), co-operative inquiry (Heron, 1971), critical action research developmental action inquiry (Torbert, 2004) and living educational theory (Barry, 2012).

Action research has commonly been described as a set of practices that respond to people's desire to act creatively in the face of practical issues related to their lives in organisations and communities (Stringer, 1999). Action research calls for engagement with people in collaborative relationships, opening new communicative spaces in which dialogue and development can flourish (Reason & Bradbury, 2008).

²³ The "web 2.0" term was first popularised by O'Reilly Media's Web 2.0 conferences, held annually since 2004. The term was chosen by O'Reilly and MediaLive International to counter the widely held belief that the 2001 crash in Internet companies' valuations (or dot-com bubble) marked the Internet as overhyped and in decline (O'Reilly, 2005). Rather, proponents for the web argued that the overvaluation of these shares and resultant shakeouts were common to all technological revolutions. In this instance, they believed the crash marked the point at which newly ascendant web 2.0 technologies would start replacing web 1.0's. Advocates believed that the principles underlying the success of Web 2.0 software would include harnessing collective intelligence and providing rich user experiences (O'Reilly, 2005).

This project reflected the typical sets of action research practices in; collaborating with educators and students to develop their new literacies (Lankshear & Knobel, 2006). Democratic values and dialogue were important in the project's success, which led to the development of a 'visual arts showcase' e-portfolio syllabus. I rewrote these lessons on my research blog and also shared my evidence and findings in local conferences and with varied research groups. My fieldwork and analysis process was an emergent practice that changed along with improved understanding of the issues to be addressed by key decision makers. The findings and recommendations of the study were intended to contribute to improved e-portfolio teaching by acknowledging the importance of young people's diverse interests and how inequalities might mar students' digital personas

The fieldwork provided a rare opportunity to describe the challenges that 29 students faced in publishing digital disciplined identities and artwork showcases online. Freemium²⁵ online portfolios were appropriated for e-portfolio creation in two different secondary school settings in Cape Town. In response to the challenges evidenced in young peoples' e-portfolio productions, I decided to shift to using a CAR approach (Carr & Kemmis, 2003). This approach validates and extends action research processes by combining critical theory with the action research paradigm (Given, 2008). CAR was highly relevant to my project in typically taking as its mission social critique, such as the study of disenfranchised populations, with the aim to promote social justice amongst them.

The project supported the aims of social critique and justice (Denzin & Lincoln, 2011) by questioning the cultural implications and moral issues involved when introducing e-portfolio curricula in highly inequitable settings. I followed a CAR process by working with visual arts and design educational stakeholders to digitally enfranchise their students. This was a collaborative process in which the stakeholders shaped my research agenda and we collaborated to find new ways of seeing youths' e-portfolio productions, accommodating these insights via curricular revisions. This critical approach empowered both myself, educational stakeholders and my research participants by acknowledging power differentials in the research relationship and accommodating the voices of educational stakeholders and youth involved in my study.

As a liberatory and democratic research approach, CAR resonates with the approaches of many South African multimodal educational research projects (Archer & Newfield, 2014) working to overcome the narrow and prescriptive legacy of apartheid education (Stein & Newfield, 2006). A local example involved teachers and students is Walton and Archer's (2004) exploration of web-literacy teaching to first-year engineering students from previously disadvantaged backgrounds in their academic literacy curriculum.

Choice of sites

The selection of a private and a government school thus allowed a purposive sample of the two school sites: The independent school site was chosen as its teacher's objectives and classroom infrastructure made it very likely that online portfolio software could successfully be appropriated into a novel curriculum. Mr. Proudfoot and two DOE curricular advisers recommended the government school site as one that would also be likely to support successful appropriation. The involvement of government school volunteers enabled me to study pupils from a wider range of economic backgrounds than

²⁵ Freemium describes a class of business models based on a marketing technique in which companies often provide a free, feature-limited, digital service. This advertising method aims to attract more potential subscribers to freemium companies' fully featured products (Anderson, 2009).

those typically described in e-portfolio, multimodal or new media research studies. Such as for example, Ito et al. 2010. Buckingham, 2007. Owen, 2009. Jewitt, 2005.

Ethical compliance in organizing access to field-sites

Conducting research with students in a school setting is recognised as being fraught with difficulties (Greenhow & Robelia, 2009). To gain access to the two school sites first involved addressing the privacy concerns of gatekeepers by securing informed consent from parents. After the provided written consent, each prospective participant was asked to provide written assent.

An important concern regarding the different sites lay in their school management and parents' potentially different engagement with protecting their children's online privacy. At the independent school, its management reflected its upper-class parents' concerns that students' privacy should be strongly protected. Such concern resonated with those of middle class homes in the UK that tend to restrict the time that children may use social networking (Livingstone & Brake, 2010, p. 76). These young people are more likely to set their profiles to private (i.e. accessible only to friends and family) than young people from working class homes. Such teenagers' privacy is likely to be at greater risk due to being from less protective homes. Management at the government school was largely disengaged in the e-portfolio lessons after giving permission for them to go ahead. To ensure students' privacy was well protected, I followed both the DOE's approval requirements and the more onerous ones used for securing independent school students' participation after management and parental buy-in.

My action research project adhered to the four philosophical principles {1-4} (Terre Blanche, Durrheim & Painter, 2006) widely accepted as being hallmarks of ethical research: People's autonomy was respected {1}; both Mr. Proudfoot and I informed students that participation in my observational research was entirely voluntary and that they might opt out at any stage. He gave permission for all e-portfolio lessons to be filmed and all students gave permission to being filmed on video. Following a successful initial launch, Mrs. Zahra, the school principal and the DOE gave permission for launching a revised curriculum. This was subject to my research activities adhering to all the WCED guidelines and regulations for research in public schools. I subsequently secured assent from the underage pupils and their parents/guardians.

Participants' dignity was respected and protected {2}, as well as their personal and institutional privacy {3}. Protecting students' privacy supported the principle of non-maleficence {4}; none of the 29 students reported negative experiences with online audiences as a result of the e-portfolio curricula.

The ethical requirement that students' identities be anonymised did pose challenges to my multimodal methods and also raised ethical issues (Noakes, 2016). Students could be identified from the visual appearance of their portfolio, especially using self-portraits. Learners could also be identified by searchable texts, such as their e-portfolio folder titles, which search engines might index and return the author's website address for. Before sharing screenshots of students' portfolios, it proved necessary to reduce their size for minimising the risk that students' work or their educator's might be identified. Reverse image searches of high resolution screenshots could be used for identifying the online sources of imagery and their creators.

Advances in online image and text search posed unexpected ethical challenges to me in protecting the privacy of research participants while sharing examples of their work.

Depersonalising screen grab imagery proved insufficient for concealing teenagers' identities. In testing "depersonalised" screen grabs of e-portfolios, I learnt that the ever-growing accuracy of text-and/or-image searches (i.e. via Google Image, TinEye, Bing, Pinterest et al.) required additional steps for dis-identification. Without these, sharing such screen grabs could potentially be used to locate teenagers' websites and contact details. Screen grabs may also pose reputation risks in potentially being shared long after participants might want them to be. Both types of risks were weighed up against the benefits of sharing select students' e-portfolio productions in my thesis. These include visual representations making it easier for readers to become familiar with the online portfolio genre. Screen grabs also provided visual support for my research themes.

For research publications, students' names that were anonymised using acronyms in my qualitative research software, were then converted to pseudonyms. Students' self-representation pictures were anonymised into black-and-white line drawings to hide identifying features. However, after transforming these images in these ways, they no longer accurately reflected the style of student work and might be misinterpreted. Another issue lay in anonymising e-portfolio screenshots for research publications in which I removed students' names, contact details and unique page titles. I did ask students for their permission to share these screenshots and none objected. On some pages, this required blurring many field entries, which also changed its page appearance significantly. Furthermore, I could not credit any student's artworks, as this would reveal their identity. A similar ethical concern lay in being unable to credit the authorial contribution of Mr. Proudfoot's e-portfolio curricula on my blogsite, since attributing the content would reveal his identity and also make it easy to find out his school's name. To protect the privacy of both schools, the details of their sources, such as newspaper articles, historical books and websites were withheld.

Two relatively privileged but very different field research sites

As explained in the Introduction chapter, my research took place at schools that were both relatively privileged in being able to offer visual arts education. Nevertheless, both schools were very different and it is important to understand their contrasting historical development and the very different opportunities that visual arts students enjoyed at each site. In particular, large inequalities existed in the different medias that their visual arts studios supported and the types of e-portfolio lessons they offered. There were also major differences in the infrastructural and technological support available for e-portfolio curation. The schools also received students from very different social backgrounds.

Key differences between the two schools and in their e-portfolio curation support

Mr. Proudfoot worked at an élite, private, Christian institution. The all-boys school is English medium and is one of the most affluent schools in South Africa. In 2010, the annual secondary school fee for dayboys exceeded R 70,000 while boarders pay over R 120,000. Mr. Proudfoot trialled an e-portfolio curriculum successfully with his grade 10 students in 2010 and taught 26 lessons over a three-year period.

Mrs. Zahra taught at an English medium public school established under the DOE. Her state school served a disadvantaged community, whose students come from low income – or no income – homes and school fees often go unpaid. Of the school's pupils, 75% were on government support as their parents/guardians could not afford the R 3,000 school fees per year. In 2017, the school added a 'shoe bank' to its food bank; providing shoes on loan for the day. Although parents were not at all affluent, the school had was

better equipped with ICTs than many other state schools²⁶. Mrs. Zahra chose not to teach e-portfolio curation and the version of the e-portfolio curriculum taught at her school was consequently very different – a shorter intervention, conducted with 12 volunteers and taught by myself. Mrs. Zahra usually taught up to 25 grade 10 students in a studio with no computers. She booked her school’s Khanya computer lab, where I taught lessons. These initially began in 2012, but were discontinued twice owing to a break in the school’s internet access. Once it was restored, I continued the lessons in 2013. In total, I taught ten lessons to a group of volunteers.

The two research sites were rare in South Africa for providing sufficient broadband, computer access and support for teaching e-portfolios. Only thirteen percent of SA schools have any access to the internet (Equal Education, 2012). In both schools, many practical problems undermined e-portfolio teaching and these were more extensive at the government school. This reflected its different priorities and relative lack of resources (witness the false starts in 2012).



Figure 4. Sketch of the independent school’s mathematics block behind the school’s pool, 2016

At the independent school, Mr. Proudfoot had significant support in launching an e-portfolio syllabus. Visual arts education is an important marker of distinction for the school and its management was keen to support ICT-related curricular initiatives to showcase the value of its one-laptop-per-student policy. Mr. Proudfoot received support from his school’s Information Technology Department (ITD) to improve broadband speed and a budget from the school management to purchase additional digitization equipment.



Figure 5. Sketch of the government school’s entrance from staff parking lot, 2016

Although such resources were not available in the government school, it was also relatively privileged by South African standards. The tradition of visual arts education at the school contributed to it being selected as one of ten *Arts and Culture Focus schools*

²⁶There are just under 25,000 schools in South Africa and 19,037 of them did not have a computer center (Equal Education, 2013).

in the Western Cape. This WCED initiative responded to a shortage of resources and arts teachers in government schools, where many students cannot access specialised subject teaching. The project provided millions in ring-fenced funding to support ten schools in offering: dance studies, design, dramatic arts, music and visual arts. The state school benefitted from this support and had four computing areas; a staff room, a design studio, a music production area and the Khanya computer laboratory. However, ICT-related curricular initiatives did not receive high priority as the school's budget was stretched to cover many more urgent needs (interview with IT manager, 2012), such as salaries for teachers on emergency placements. Although the school's IT manager offered his support, he was overstretched and constrained by a limited budget.

Technological and material resourcing at the private and government schools

As my research focused on material and technological aspects of inequality, it was important to appreciate their key characteristics for both research sites. These are expanded below, with key points of difference **bolded** for emphasis. For additional information, an in-depth background is available in section one of the Appendix.

Infrastructure and resourcing at the independent school

I. Private school students formal access to digital infrastructure for e-portfolio curation

The independent school was one of **the first in South Africa to support students use of computers**, introducing computer lessons in the early 1980's. **Laptops for all boys** were introduced as part of a change of pedagogy and policy before 2000. All grade 9 to 12 students had to own a laptop for accessing the school's **intranet** and **wireless internet**. Their use was circumscribed in the school's **Information Technology: Terms of Use policy**, which had to be signed for access to the school's ICT. The policy emphasized the individual's responsibilities in using digital equipment.

In e-portfolio lessons, all 17 students used laptops to connect to a wireless network for accessing the intranet and online resources. When laptops were stolen, or left behind at home or boarding house, learners could borrow their educator's laptop or request a spare one from the ITD. It also supported students with having reliable and responsive access to Carbonmade. Although access was initially erratic and slow, ITD fixed this in 2011 by replacing the studio's **wireless router**.

Digitization equipment and software were necessary to remediate analogue artworks. In 2010, the visual arts studio provided access to one scanner and a tripod-mounted camera. Since only two students could digitise artwork at once in class using this equipment, **another scanner was added** to the studio in 2011 and **three tripod-mounted cameras** were purchased to mount the IT Department's two cameras in 2012. Students were taught to use **CorelDraw graphic software suite** to get their artwork ready for upload in formats compatible with Carbonmade's upload facility. Other suitable programmes, such as **Microsoft Picture Manager**, were taught to those students that Mr. Proudfoot thought needed an easier solution.

II. The role of ICT in the independent school's visual arts lessons

Ever since the laptop programme was put in place, computer software had been included in the visual arts at the independent school. In particular, students used **CorelDraw** for two-dimensional design. Laptops were mostly used for Visual Cultural Studies tasks, involving **Microsoft PowerPoint** and **Word** from its **Office package**. Since 2009, my research project contributed to computers also being used for; digitizing artworks, creating e-portfolios, visiting online galleries and sharing resources via **private social bookmark groups**.

III. The background of the visual arts subject at the independent school

Originally known as *drawing*, the visual arts subject was first offered at the independent school in the mid nineteenth century. Only when a new hall was built in the mid-1950's was there dedicated studio space to teach it. An **Art Centre** was built in the late 1980's, which incorporated a lecture theatre, an art studio and a **ceramic production area** and artwork storage space. The subject moved to a new Centre built between 2002 and 2003, so that the *Technology* subject could share equipment and facilities with it.



Figure 6 Collage of video screenshots of the independent school's visual arts studio, from front to back.

There are **four exhibition venues** for student's visual artworks; an old hall, the library, the Art Centre and its basement. Exhibitions were held **fairly frequently** and students were also exposed to the work of arts professionals through the school's **artist-in-residence scheme**. The Art Department had one full-time, and **one part-time**, teacher.

Mr. Proudfoot taught around **forty students** in **two sets** from grades eight to nine and **fifteen** in grades ten to twelve. Outside normal curricular activities in these facilities, students had the opportunity to go on field trips. There was an after-school, voluntary, **Accelerated Art Programme** that offered extra-mural workshops with visiting artists. Its co-curricular activities were intended to build on students' major drawing and painting projects by exposing them to additional mediums and techniques, such as **oil painting**. Students could also learn other fine arts domains, such as **printmaking**. Students could also volunteer for **digital design** after-school classes where they were taught skills in photography, design and related software. In addition to exhibitions, the art department also contributed to activities at the school; such as developing the theatre crafts of learners in preparing stage sets and the school's graphic identity (for example, new leadership badges).

Resourcing at the government school

A. Government school students formal access to digital infrastructure for e-portfolio curation



Figure 7. Photograph of visual arts studio at the government school, 2013

The government school started its first computer laboratory after 2000, which grew to five computers that could only be used to teach a few students typing skills or was used

by teachers to type out question papers. The WCED's Khanya project opened a **Khanya computer lab** as part of an initiative aiming to provide every school in the Western Cape with a computer lab. The school was designated an **Arts and Culture Focus School** after the implementation of the new National Curriculum provided an opportunity to identify and support focus schools. These provide students with talent, interest and/or aptitude in arts subjects with increased access and support as part of the provincial government's 'Human Capital Development Strategy'. The school benefitted from the opening of an **Apple Mac studio** in its design studio and a **Sound Lab** in its music department.

While art educators were pleased with the additional resources and related training, they expressed doubt²⁷ that the initiative would be sustained. They voiced concerns that the focus school initiative drew on sizeable resources from the WCED's educational budget and funding to maintain ICT was a low priority for their principal. From 2010 to 2016, the school had 58 PCs in its two computer labs, and the **student to PC ratio was 1:19**. Unlike the independent school, only students who elected to study Computer Studies had regular access to the general computing labs and the school had no ICT use policy. According to the school's former IT manager, **few of its students were proficient with using computers** as most were not taught ICT skills (Interview with IT manager, 2012).

From 2010, the school was equipped with four areas in which educators and students could access school technology: in the design studio, in the music block, in the staff rooms and in the Khanya lab. This access was typically limited to students studying design in the design studio, students studying music in the music block, staff in the staff rooms and computer studies students in the Khanya lab. Visual Arts students and I had to be given special access to the Khanya lab during school hours, and the design studio in case of emergencies.

As an Arts and Culture focus school with four computer labs, the government school was a relatively advantaged public schooling context. Only 2489 of the 24793 government schools in South Africa had computer centres (Equal Education, 2012). However, the opportunities it provided students for e-portfolio production were heavily constrained: The only ICT that was formally used in Mrs. Zahra's class was her laptop, a smart-board and a projector. The student volunteers and I were given special access to the Khanya lab during school hours. To digitise their images, students used a **borrowed scanner** from the design studio. They were also encouraged to use a **camera borrowed from the principal** or **my camera and tripod**. Students were shown how to use the scanner software and **Microsoft Paint** to edit digitised imagery.

B. The background to the Visual arts subject at the government school

Although the visual arts subject has been offered as an option at the government school since the **1960's**, it was not taught at school, but at a **nearby teacher training college**. In the 1970's, the WCED brought the subject to the school to be taught in its new arts studio. Its visual arts teacher described the 1970s to 90s as a seminal era of achievement in the subject. Then, most students lived in the immediate area and could stay at the

²⁷ Such doubts proved prescient. Support for the Khanya lab was discontinued in 2011, as the WCED decided to incorporate the core functions of the Khanya project into the WCED. Its further austerity measures from 2016 led to the Khanya computer lab and its IT manager's position being closed. The teaching staff were cut back and teachers now teach up to 50 students per class on average. The school no longer funded visual art materials in class, so Mrs. Zahra's syllabus had to provide for the most basic materials in class (i.e. collage, graphite pencil, pen). She had to source funding herself for teaching with paints and other mediums.

school for studio work until. Such diligence resulted in meaningful success in visual arts competitions and students forging careers as successful artists.

Educators believed that the nature of the school's visual arts output changed as the school began to include more **township students** post-apartheid and school leaving exam grades began to fall. Most had to make long journeys to reach their school or return from it and the **after-school arts classes were discontinued**, due to safety concerns for those who would arrive home near dusk or after dark. In addition to having less time to do art at school, black students may also have struggled with the Eurocentric/Modern emphasis in the visual arts being very different to the aesthetic repertoires such students were likely to be exposed to in their homes. It is also possible that the visual arts teachers did not adjust their teaching styles for township students.

The arts educators believed that the downward trend in student results had been partially arrested by the school's selection as an Arts and Culture Focus School and the fact that more local students attended the school after 2007's financial crisis. The weak economy made the school more desirable for parents nearby struggling with the rising costs of living.

In 2013, Mrs. Zahra taught around **eighty students** in two sets for grade eight, almost **sixty students** in two sets for grade nine and around **twenty** in grades ten to twelve. While the government school **could not support an artist in residence program**, Mrs. Zahra did introduce her students to **successful alumni as role models** who sat in class and these alumni also contributed. Students received additional lessons at the **Frank Joubert Art Centre**, as part of a programme that was funded by the WCED.

Dimensions of infrastructural inequality between my research sites

The importance of appropriate infrastructure for e-portfolio education was evidenced in it taking just under six months to launch the e-portfolio curriculum at the independent school. By contrast, there was a year-and-a-half delay in launching it at the government site. Such a gap mirrored important differences between the two sites for e-portfolio teaching. According to the *eight dimensions of infrastructure* (Star & Ruhleder, 1996) these differences could be categorized into:

Dimension 1. Embeddedness

ICT infrastructure was heavily embedded at the independent school, which has a one-laptop-per-student policy. School's intranet use is a pre-requisite (for school timetable, curricular materials, etc.) and each student was given a school email address. By contrast, the twelve government school student volunteers required special permission to access the school's Khanya project computer lab. Their school did not provide email addresses and pupils were instructed to create private ones for registering with Carbonmade.

Dimension 2. Transparency

At the independent school, ICT infrastructure was far more transparent as it invisibly supported e-portfolio lessons. By contrast, such ICT was an add-on to teaching at the government school site and was specially assembled for lessons in the Khanya lab.

Dimension 3. Reach or scope

Independent school students were privileged in the wireless access to the internet being widely dispersed across the school. There was limited reach at the government one as the volunteers seldom had access to the Khanya lab outside of my e-portfolio lessons.

Dimension 4. Learned as part of membership

All independent school students had received ICT training, while no state school students did and most were first-time users of desktop computers. This necessitated me adding content to their e-portfolio syllabus and an extra lesson to cover important basic computer literacies, such as file management. The volunteers had only a few e-portfolio lessons to develop a naturalized familiarity with desktop computing.

Dimension 5. Links with conventions of practice

The independent school e-portfolio syllabus lessons were mandatory for all students and addressed a DOE module. In 2011, the Visual Arts department also mandated as policy that all its students should have an e-portfolio from grade 10. At the government school an introductory e-portfolio curriculum was offered to students as a once-off event. It was not repeated largely due to the many infrastructural constraints its educator and students would face (email from Mrs. Zahra, 2015).

Dimension 6. Embodiment of standards

It was easy for an e-portfolio syllabus to be plugged into the independent school's existing arts studio's ICT tools and policies. It was very difficult to launch an e-portfolio curriculum at the government school due to difficulties with the computer and internet access it offered and lack of policy support.

Dimension 7. Built on an installed base

Mr. Proudfoot leveraged a strong ICT base in being able to quickly launch e-portfolio curricula and incorporate it into his syllabus. The weak ICT base at Mrs. Zahra's school frequently frustrated her as it was unreliable. For example, she did not have internet access on her school laptop for months at a stretch.

Dimension 8. Becomes visible upon breakdown

The normally invisible quality of infrastructure was very visible when it broke at both sites. The extent and severity of these breakdowns was greater at the government school, where no support was available during lessons to fix technical problems.

Star and Ruhleder (1996) proposed that infrastructure is part of a cultural context and is relational in emerging in places related to organisational practices. Rather than focus on narrow descriptions of what technology is, researchers should ask when does infrastructure exist. This had important implications for researching e-portfolios as it shifted the focus from describing technologies towards the different situations that students used infrastructure for sourcing imagery, digitization and e-portfolio curation.

Creatively appropriating Carbonmade for visual arts showcase e-portfolios

Rationale for the selection of Carbonmade as an e-portfolio tool

After reviewing the suitability of varied online portfolio websites, Mr. Proudfoot, the private school teacher, and I decided that Carbonmade was likely to work best. It is an online portfolio service that hosted over 500,000 portfolios in 2014. Their creators can define themselves as having one or multiple roles, ranging from character designers to fine artists. Users may also describe and feature varied skills and specialities; from three-dimensional modelling to web design.

Mr. Proudfoot and I prepared two mini-workshops with a few volunteer visual arts and design educators to evaluate Carbonmade's suitability. Their aggregated feedback supported its use, suggesting eight important criteria (Noakes, 2011) for classroom appropriation. These ranged from being a popular and sustainable service with an

interesting diversity of contributors to not supporting commenting and/or rating options. Teachers preferred portfolios to be without feedback options, since instructors perceived that many students lacked the maturity to comment on each other's works appropriately.

Appropriating visual arts showcase e-portfolios at the independent school

Mr. Proudfoot thought that his grade 10 students might find using Carbonmade easy and decided to trial it with them via a new curriculum in 2010. The e-portfolio syllabus he developed was intended primarily to provide students with opportunities for self-curation. He hoped this might help them select works of 'quality' (Interview with Mr. Proudfoot, 13 January 2012) for examinable exhibitions. Mr. Proudfoot taught e-portfolio use in the two weeks allocated by the DOE to a 'Management and Presentation' theme and the curricula he developed gave students a rare opportunity to practice curatorial decision-making, whilst internalizing disciplinary values, 'How am I going to present this? What frame am I going to use?' (Interview with Mr. Proudfoot, 25 October 2013).

Although most students indicated that Carbonmade was simple to use, the classroom context of an unreliable network and costly, therefore restricted, internet bandwidth led to slow upload times and frustrating delays. Mr. Proudfoot and I also underestimated the number of cameras and scanners required to support the digitization of artworks by all students within the time constraints of a 45-minute class. At the conclusion of the 2010 curriculum, students' self-presentation and portfolio organisation choices were generally underwhelming, which Mr. Proudfoot also ascribed to it being a 'difficult'²⁸ grade year. For grade 11 students, Mr. Proudfoot and I developed e-portfolio guidelines with explicit instructions on representation and communication choices. For example, organizing artworks under five folders with particular titles. We could not launch a curriculum to prepare matriculants for post-school realities in 2012, but his matric syllabus did include a few lessons for artwork digitisation and e-portfolio updates.

Appropriating visual arts showcase e-portfolios at a government school

Mrs. Zahra had a heavy and increasing workload to which she could not add teaching e-portfolio curation as a priority. Nevertheless, she kindly facilitated me being able to teach the modified curriculum to volunteer students. She described that it should be restricted to volunteers as only they would be prepared to do the extra work for lessons and also for my research. Owing to computer lab and online access challenges, I only did a few e-portfolio that year and the other eight classes were postponed until internet access was restored to the Khanya lab in the following year.

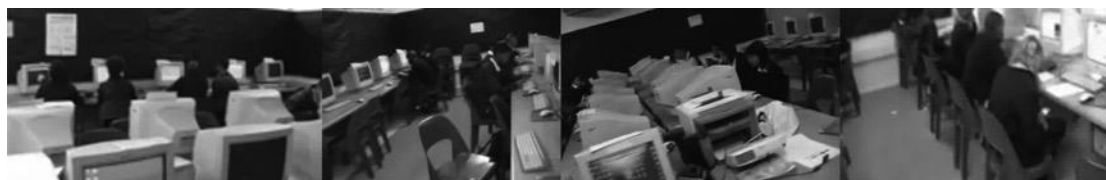


Figure 8. Collage of video screenshots from inside the government school's Khanya computer lab, 2013

I learnt while teaching that I had underestimated numerous challenges to students in formal e-portfolio curation that resulted from their old computer lab and inexperience with desktop computers: these were over six years old and had slow internet access being connected to a router designed for home-use. I encouraged pupils to be resourceful and

²⁸ Out of a grade 10 class of 18 students, the school psychologist diagnosed five as having 'learning difficulties'. Mr. Proudfoot stated that this was the highest number he had experienced in almost thirty years of teaching at the school (Interview with Mr. Proudfoot, 2013).

think of novel ways they could access Carbonmade outside class. I also had not anticipated that the students would not be taught computer-use. To address this when teaching the volunteer students, I taught computing terminology, digital page layout and provided support with processes such as file management and network use (Noakes, 2012).

Impact of differences in infrastructure on e-portfolio lessons

One of the first hurdles to the research design also led to important findings of the study—namely that the infrastructures for visual arts students in the two schools was very different and highly unequal. There were also major differences in the out-of-class infrastructure that youths could access: few government school students had access to “free” internet outside the computer lab. Several independent school students described having faster, more reliable internet access at home, as did the best-resourced government school students.

Teachers’ e-portfolio lessons also worked differently, as did the outcomes of my project. This reflected the varied social shaping (Mackay & Gillespie, 1992. MacKenzie & Wajcman, 1999. Williams & Edge, 1996) of e-portfolio teaching at both sites. In these dynamic social environments, their educators, school management and I worked out our interrelated and competing interests, cultural assumptions and visions (Lievrouw, 2010).

On the basis of the feedback of Mr. Alec and Mrs. Zahra, I revised the introductory e-portfolio curricula that Mr. Proudfoot prepared. I published it to my blogsite (Noakes, 2012). Mrs. Zahra was disinterested in using social network services and creating her own online portfolio. Teaching e-portfolio curation was also not an important priority to her, but she kindly facilitated my teaching of twelve volunteers in 2011. Due to computer lab and online access challenges, I taught two lessons that year. The rest were postponed until internet access was restored to the lab.

My content analysis of students’ e-portfolio styles at either site suggested that these were linked to broader social inequalities. In response to these technological, material and cultural inequalities, my research project shifted to following a CAR approach. It laid the groundwork for a holistic, multiple case study analysis that explored the diverse lifestyles and infrastructural resources that students’ e-portfolio styles drew on.

The hallmarks of CAR (Carr & Kemmis, 2003) are that it should produce a social critique and promote social justice. My research into how teenagers’ e-portfolio styles related to their circumstances intended to create critically reflective knowledge for increased fairness. By foregrounding the important, but neglected, role of infrastructure and capital in media studies, my thesis may contribute to helping educators and other decision makers with teaching ideas for better supporting marginalized students.

While both grades at the two sites comprised teenagers of similar ages, there were large differences in the gender composition and class (see Tables 3 and 4) of the students. At the independent school most students were white and at the government school all students were black.

Student identities at the sites

The government school was a primarily black institution and all its volunteers were black. By contrast, the independent school was mostly white, as were its participants. The white participants lived in suburbs formerly reserved for ‘Europeans’, while the black ones stayed in formerly “Black” or “Coloured” districts and townships (see Tables 3 and

4). A family's class also strongly influences the types of internet access that young people enjoyed at home. White students' privileged home locations were also well-connected to the internet. By contrast, the majority of black students' homes did not support any internet connection. Such youth would be reliant on costly mobile phone broadband to access the internet, like most South Africans (Donner & Gitau, 2009).

Overview of participants

Legends for the Tables 3 and 4: Pseudonym * indicates a person not used for a case study
Gender M = Male, F = Female Internet access W = well connected, U = under-connected, N = non-connected

Table 3. Independent school participants' pseudonyms, gender, suburb and internet access

Pseudonym	Gender	Suburb/school boarder	Internet access
Harry	M	Rondebosch	W
Kyle	M	Camps Bay	W
*Thomas	M	Constantia	W
Gary	M	(school boarder)	W
*Wesley	M	Constantia	W
George	M	Southern Peninsula	W
*Anthony	M	<not disclosed>	W
*Henry	M	Constantia	W
*Haydn	M	Bishops court	W
*Mark	M	Newlands	W
*Pradesh	M	Constantia	W
*Saliem	M	Rondebosch	W
Hui	M	(school boarder)	W
Vikus	M	Constantia	W
*Shakir	M	Crawford	W
*Moeneeb	M	(school boarder)	W
Thembani	M	(school boarder)	W

Table 4. Government school participants' pseudonyms, gender, suburb and internet access

Pseudonym	Gender	Suburb	Internet access
Masibulele	M	Khayelitsha	U
Kurt	M	Strandfontein	U
*Michael	M	Crawford	N
Melissa	F	Heideveld	W
*Tazneen	F	Crawford	U
Herschelle	M	Hanover Park	U
*Tamlyn	F	Hanover Park	W
Lesley-Ann	F	Crawford	U
Nathan	M	Athlone	N
*Faziel	M	Hanover Park	U
*Miriam	F	Belgravia	U
Dina	F	Bonteheuwel	W

Shifting to addressing class and race in my research

Although my research did not focus on race or class during fieldwork, the aspects of students' identity and social background emerged as strong influences. Both informed the types of informal cultural repertoires that participants described developing and also how these were negotiated together with institutional schooling cultural capital. It became important for me to understand how participants negotiated these identities.

Instead, I decided to discuss racial identities with educators to gain their insights into students' perspectives, albeit partial. To address young people's race, I thus chose to use two categories; black and white. The former category accurately reflects how the

government school students and their educator wanted their racial identities to be described. As Mrs. Zahra wrote, 'My learners are all from the Cape Flats and I think the learners would like to steer away from the Cape Coloured identity' (Email from Mrs. Zahra, 2016). Her feedback responded to a long history of negative racial stereotyping of this marginalized group (Adhikari, 2006), such as tying its racial hybridity to illegitimacy and sexual shame. I use the term 'black' in an inclusive sense informed by black consciousness (Adhikari, 2005) for collectively referring to 'black Africans', "coloureds" and 'Indians'.

Strengths and weaknesses of action research

In the highly unequal and heterogeneous Cape Town context, my identity as a privately schooled, prosperous white male researcher resulted in blind spots. My cultural capital proved advantageous in working with the independent school's management, educators and students due to our common background. By contrast my privileged upbringing posed an obstacle to me appreciating the extent and complexity of challenges that would arise when less well-resourced management, educators and students needed to use Carbonmade for e-portfolio curation, particularly at the government school.

A weakness of action research is that it is likely to make more demands on teachers' time, energy and resources, than other approaches (Kelly, 1985). My field research took a long time, since e-portfolio curricula were extraneous to visual arts educators' jobs and they were not forced to launch its curricula. I adopted an approach that responded dynamically to both educators' school commitments and other concerns.

Effective capacity building in my action research approach was an important strength. My research catalysed the sustained adoption of e-portfolios at an independent school and the once-off creative appropriation in a government one. Mr. Proudfoot was generally pleased with the e-portfolios that students curated and made it a policy of the school's visual arts department in 2012 that all students would produce e-portfolios from grade 10 to matric. Mrs. Zahra was pleased with the e-portfolios that her volunteers produced; mentioning in 2014 that three of the volunteers "Kurt", "Masibulele" and "Tamlyn" had successfully applied to study further using their e-portfolios as a reference. Despite such positive outcomes, Mrs. Zahra decided not to adopt e-portfolio software in her syllabus.

Describing shortfall equality

In studying students' artworks and interviewing them, a wide variety of resources became evident. Both the content analysis and case studies revealed that a process of cultural reproduction was taking place in e-portfolio curation. The better-resourced students' e-portfolio styles at either site reflected their advantages in relation to technological, material and cultural resourcing. In particular, young people's material circumstances were reflected in the extent of their digital self-descriptions and portfolio organisation. This mirrored the digital hexis for e-portfolio curation they exercised. Inequalities in histories of digital infrastructure's access and use (for example "free" internet Wi-Fi) became evident in that class and digital divides clearly shaped the extent to which digital personas and imagery were curated. Privileged teens exercised their advantages in digital information infrastructure access and ownership to curate e-portfolios with extensive information about multiple personas. By contrast, under-resourced students did not have sufficient internet access to provide the prescribed information about their art student identity, let alone adding informal (or "unofficial") personas. This necessitated a change in my focus towards exploring how a shift from

analog to digital portfolio production by young Cape Town students with very different resources resulted in e-portfolio styles echoing such inequalities.

Interviews and ongoing discussions with students and teachers revealed that the e-portfolio lessons had not provided a fair context for under-resourced students. Despite being highly motivated, a few government school students expressed dissatisfaction with their e-portfolios not accurately showcasing their artistic achievements. Such styles evidenced a *shortfall equality* (Sen, 1996), where the constraints of a digital divide prevented students from comprehensively curating their capabilities. While *attainment equality* would focus on actual levels of achievement, for example students' grades, *shortfall equality* describes shortfalls of actual achievements from the respective maximal achievements. For example, some students were unable to create the digital disciplined identity in class as they had been taught.

Students' lack of freedom to articulate the e-portfolio styles they desired necessitated that my research incorporated two foci from Sen's capability approach (1999). The first concerned what students did 'actually do', in my project's case when using internet access to pursue visual creative interests. The second related to their achievements in converting resources into agency (Sen, 1992), and here my project looked at their use of concerted cultivation or market-driven roles in developing digital personas. Young people had very different opportunities to draw on capital for developing their agency as visual creatives or in pursuing other roles that they valued. Their homes supported different types of *concerted cultivation* (Lareau, 2003) through which teenagers' skills, interests and behaviours were actively cultivated in structured, leisure time activities administered by adults (such as sport and art). Teenagers could also be motivated to become creative entrepreneurs in market-driven roles, such as fashion retailers or music performers, for earning income. This focus addressed young people's contrasting opportunities for developing informal repertoires and also in negotiating these as part of their e-portfolios.

Using Critical action research to critique e-portfolio appropriation

My original approach to the research was informed by an educational technology discourse, which supports increased technology use in classroom as a means for closing the digital divide. I followed an action research approach to support the creative appropriation of e-portfolios. I assumed they would support social justice in digitally enfranchising all participants. However, my research revealed how students' digital personas were strongly shaped by inequality. Teenagers from the better-resourced homes at either school leveraged advantages in their digital infrastructures to amplify their existing privileges in their digital symbolic capital. As a result, I turned to CAR which combines critical theory with the action research paradigm (Davis, 2012). Critical theory critiques hegemony in efforts aimed at promoting social change. CAR also takes as its mission social critique with the aim of promoting social justice amongst the marginalised populations that CAR researchers study. The CAR approach flagged important questions concerning the social consequence and moral issues involved in teaching the creative appropriation of e-portfolios. In particular, the dissatisfaction that all marginalised students at the government school expressed with their e-portfolios raised important questions about my intervention's value, as did the e-portfolio syllabus' discontinuance at this site. As the promise of educational technology discourse had rung hollow for these cases, my research shifted to using educational sociology to situate both the positive and negative outcomes.

Content analysis for 29 students

Screenshot content analysis

In phase 1, my initial focus on students' e-portfolio styles led me to first analyse related data sources, namely; Carbonmade GUI and e-portfolio screen grabs. My analysis of students' choices used insights from new media research insights into database-driven webpage design (Manovich, 1999, 2008) and social semiotics (Kress, 2010) to define 29 students' representational and communicational choices. Although not much has been written about image analysis (Jewitt & van Leeuwen, 2000), I found that it complimented my classroom research and case study methods to analyse screenshot imagery.

While webpage analysis is often used to analyse webpages at a point in time, I had to develop an original screenshot analysis approach of a longitudinal archive for exploring young people's design changes. Screenshot analysis has been used in social semiotics to describe the choices that students make with software (Jewitt, 2006) and as part of an argument for a social semiotic framework to analyse website interactivity (Adami, 2014a, 2015). In Media Studies, webpage analysis has been used to explore similar research foci to mine. For example, for describing how learners re-present knowledge via the curricular websites they design (Walsh, 2007), to explore young people's personal webpage designs (Chandler & Roberts-Young, 1999a) and to explain university students' design of e-portfolios (Pallitt & Houslay, 2015).

My content analysis involved four steps:

Carbonmade GUI content index

To define the choices that students could make in their e-portfolios, screenshots of Carbonmade's GUI (see example in Figure 9) were referenced to index all the fields that it afforded free users. The Carbonmade portfolio creator's choices are captured in a database and used when making rendering decisions to show each page in its viewer's web browser.

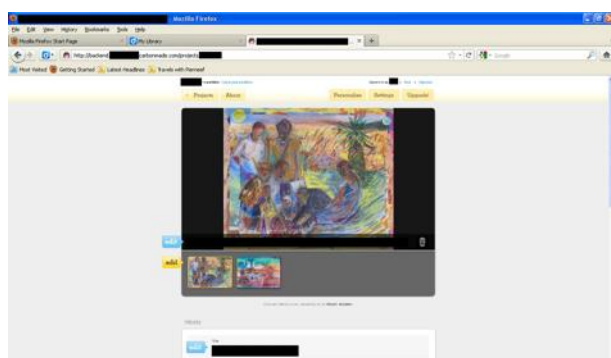


Figure 9. Screenshot of 'Project' page selected in Carbonmade's GUI, 2011

Screen grabs were imported into NVivo 9, a computer-aided qualitative data analysis software specifically developed for qualitative researchers. I devised a content analysis approach that defined each student's choices, as well as those he or she ignored, on each page type (see example in Figure 10). These informed a coding index that defined the possible entry fields on each page type.

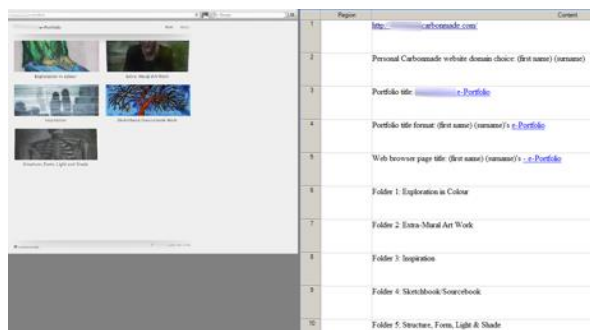


Figure 10. Screenshot of homepage by “George” transcribed using NVivo 9, 2011

First-level coding of choices by page type

Each student’s webpage choices were then transcribed by referencing this index. These choices were transcribed and then descriptively coded according to the particular categories of information (Miles & Huberman, 1994) they represented.

Comparing all students’ types of choices by school

A Microsoft Word file was created to tabulate students’ representational choices in self-presentation, portfolio organisation and communication categories. The division corresponded to the social communication functions in a multimodal communication perspective (Kress, 2010) of representational and orientational categories. This process was completed for both school’s students and their choices were tallied to give totals and percentages by site. Entries were then ordered by prevalence in tables to facilitate the identification of patterns. Most of these tables have been shared in Chapter Four.

Analysing patterns of choices amongst students at a school

An acronym was used for each student in my content analysis, which proved advantageous as I could tally students’ aggregated choices for particular fields and also compare a student’s choices against classmates and also in terms of curricular compliance. Acronyms also proved very useful in enabling me to track a student’s choices in different categories and to check where he or she differed from peers in making an unusual series of choices. Through analysing individual student choices, it became evident that there were large variations between peers in terms of the digital personas they shared and the modal density of their e-portfolio styles. My analysis did not compare these results, but described patterns in classmates’ representational and communicational choices at each site.

Defining the personas that students added

There were wide-ranging variances in the types and number of disciplinary-, “unofficial” visual creative and other personas that young people shared. To document these differences, I prepared a coding frame (see section F in the Appendix) for three persona-type categories. This frame indexed the wide range of personas that students had included.

Case studies for 12 students

The content analysis of students’ choices proved insufficient to explain the contextual issues involved in their e-portfolio styles. In particular, I could not explain how these reflected different interests and strategies whilst also drawing on different social circumstances. A case studies methodology was chosen for developing rich and thick case descriptions that could capture the uniqueness (Gomm & Hammersley, 2000) of students’ contrasting aims and situations. This method supported the real world contextualisation (Gillham, 2000) of schools and young people.

Shortlisting 18 students based on their e-portfolios and resourcing

A close reading (Brummett, 2010) of individual students' e-portfolio styles over time informed my selection of a shortlist of eighteen students whose e-portfolios were a cross-section of examples for each site. Their examples were intended to cover the widest range of variations in youths' e-portfolio styles and circumstances:

To describe differences in the significance students ascribed to their e-portfolio styles, pupils were selected whose e-portfolios differed the most from each other. Particularly, in terms of reproducing a visual arts student identity or in spotlighting "unofficial" visual creative personas. This followed the example of Adami's (2014a, 2015) analysis of different aesthetic approaches in blog texts. Her research into webpage styles suggested the importance of exploring authors' contrasting approaches within the same genre. This supports the investigation of how contrasting aesthetic resources' use in webpage styles are tied to broader distinctions in social tastes and power relations.

To understand the circumstances of all students, their questionnaire feedback was transcribed and collated to one Excel spreadsheet for each site. This feedback was analysed to understand students' resourcing and dispositions towards participating in e-portfolio production in particular, and visual arts classes and related visual cultural practices in general. Many students described being able to do e-portfolio curations at home, but a few government school learners described facing challenging circumstances. In selecting from these, special care was taken to ensure that examples of students were included who were under or non-internet connected. These young people shared class and racial markers of dominated groups. Dominated youths' voices should be considered according to Lo (2015) as this contributes to Bourdieusian theory by enabling the agency and creativity of the dominated to be recognised. This focus also enabled descriptions of the resourceful approaches, which under-connected students followed in making workarounds (Noakes, Walton, Venter & Cronjé, 2014) that helped them to circumvent constraints and express their desired e-portfolio styles.

Selecting 14 students for interviews

A cross-section of fourteen students were chosen from the shortlist. They were selected to reflect both the widest range of material contexts (from poor to rich households) and the most divergent combinations of online identities (from the bare minimum to multiple classroom and informal ones). Seven students each were then interviewed at the independent and government schools. Each interview aimed to elicit what a young person felt and thought about his or her e-portfolio styles and how these were shaped by influences in their social semiotic spaces. The first interview involved stimulated recall (Hodgson, 2008) concerning the interviewee's e-portfolio. Stimulated recall is a research method that is particularly suitable for examining processes, such as e-portfolio curation. This method is used in educational research to understand decision-making. I showed students screenshots of their work, which were organised by page type and folder display order. These images were linked to a structured interview that stimulated students' memories, thoughts and feelings concerning their rationales for legitimate and "unofficial" personas.

The second interview focussed on the broader context of young people's online portfolio use; questions ranged from changes in their disposition to e-portfolio production over the duration of the syllabus to developments in their use of digital media for participating in "unofficial" roles.

Defining the spaces and chains of visual creative production in students' work

To better understand the relationships between the formal and “unofficial” repertoires in students' e-portfolio styles, I prepared a conceptual map of such inter-relationships. In the visual arts, skills from core symbolic repertoires, such as drawing, can be applied in many others, ranging from animé to tattoo art.

Exploring individual participation in spaces of visual creative production

I then drew conceptual maps for the 14 students that illustrated the chain of medias and domains that e-portfolio styles featured. These spanned from students who only featured formal repertoires to those featuring involvements in many “unofficial” ones. For example, a chain for a privileged student illustrated his sports participation and involvement in videographic media; “Gary” bodyboarded and filmed this on his GoPro 1 camera. He edited the footage into a video and added a soundtrack. He compressed the video for upload to his YouTube channel and submitted it to an online water sports video competition.

Such a chain highlighted important enablers in his digital infrastructures and digital information habitus. This suggested that my analysis should explore how the range of differentiating “unofficial” practices in e-portfolio styles marked teenagers' privileges. I grouped cases into those that mainly foregrounded the disciplinary identity and those that spotlighted “unofficial” roles. After preparing fourteen case studies, I chose twelve with the least similarity.

Describing a benchmark visual arts student identity and his showcase portfolio

My multiple case study analysis primarily drew on; descriptions of each student's e-portfolio styles, their questionnaire feedback and two interviews with each of the selected students. The latter comprised of face-to-face, structured interviews (Miller and Brewer, 2003), which were done to get to know the students and their interests better, as recommended by Terre Blanche, Durrheim and Painter, 2006.

George's example was used as a touchstone exemplar of the disciplinary identity: His self-presentation style closely matched a visual arts student's and his e-portfolio's aesthetic matched an art gallery. It showcased work and inspiration related to his classroom roles as an observational drawer and as a painter. It closely matched Mr. Proudfoot's curricular guidelines.

George's self-presentation choices were described using a symbolic interactionist approach, which framed his self-impression management strategy. This was linked to a social semiotic approach to multimodal communication that contextualised his portfolio choices in terms his interests as sign-maker (Kress, 2010). A sociological frame was applied to contextualise the capitals that George leveraged in social semiotic spaces for presenting disciplined personas and his curricular showcase.

Defining four other students' contrasting reproductions of the disciplinary identity

The same theoretical approaches were combined to describe how the contrasting strategies, interests and situations of two independent school and two government school students were evidenced in their e-portfolio styles.

Defining seven students' addition of “unofficial” visual creative and other personas

I described seven students who spotlighted “unofficial” visual creative and other personas. I explored how the diverse repertoires of three independent school students and four government school learners were linked to broader inequalities in Cape Town.

Getting feedback from both educators

In writing my thesis I contacted the educators again to follow-up any progress my participants had made in pursuing arts studies after matric. I also updated the teachers on my findings and my research. Mr. Proudfoot and Mrs. Zahra were provided with the case studies of their students. Each provided feedback on factual corrections that were used to correct the case studies before they were shared with students.

Participants review their case studies


My case studies were also refined based on feedback from the research participants, as recommended for trustworthiness and validity (Yin, 2008). Each student was given the opportunity to check their case study. Independent school students were emailed directly or Facebook messaged with exports of their individual case study. Government school students were contacted via Gmail. Additional questions were posed to the students, for example to investigate what they were up to. A few students responded with answers and suggestions for corrections. Both their answers and directions were applied in the revised case studies.

Revising the evidence chapters and case studies to address capability

The evidence and case study chapters were revised to better address Sen's capability approach (1990, 1992). Projects that seek to promote development as freedom should be geared to increasing, and not limiting, people's choices to leads lives they value (Kleine, 2011). While my initial case studies addressed young people's use of cultural repertoires and resources, the cases did not address teenagers' contrasting opportunities for translating resources into capabilities nor whether they believed their e-portfolios would assist with their future plans.

I revised the case studies to address a capability that Mr. Proudfoot, Mrs. Zahra and many participants valued. It was satisfactorily curating an e-portfolio that might support a desired social trajectory. Such trajectories could vary in relating to work, academic or other goals. To achieve this desired e-portfolio capability, young people would need to achieve varied (A) representational and (B) communication functionings (see table 8 overleaf).

Table 5. Representational and communicational functionings for a satisfactory e-portfolio

<i>Satisfactory representation in one's e-portfolio</i>	<i>Facilitate communication</i>
1.1 Share one's disciplinary persona(s)	6. Being searchable/found by desired audiences;
1.2 Share one's unofficial visual creative persona(s)	7. Protecting one's privacy from undesirable audiences.
1.3 Share other types of cultural capital	
1.4 Curate a satisfying digital identity	
2. Publish a well-organised showcase portfolio	
3. Link to portfolios featuring other valued cultural capital	
4. Appropriate influences and attribute their sources	
5. Acceptable production values.	

I used a checklist of the capability set and its functionings to double-check that each aspect was addressed in all case studies (see 'Capability and functionings in case studies' spreadsheet in the Appendix). Sen's approach was used to outline what each youth achieved and how this related to what they were capable of, but chose not to do. Such

omissions were related to what students perceived to be desirable for their visual arts classroom audience and others. A capability approach was also used to frame those functionings that teens had hoped-for, but proved not to be feasible.

Students' e-portfolio styles served as a proxy for an individual's choices and reflected the systematic relationships between agency, structure and choice that lead to their realisation. Patterns in these relationships were considered in recommending changes to visual arts e-portfolio curricula and online portfolio software that might better support marginalized youths' capability (see Chapter Seven).

Participant observations

Observational methods

My critical action research project used its key data collection approaches of participant observation, questionnaires and interviews (Kock, 2011). I video-recorded 42 e-portfolio lessons, interviewed educators and key decision makers and captured feedback to 29 'online portfolio-' and 'out-of-class' questionnaires. I also captured screengrabs of all participants' e-portfolio webpages every year.

Strengths and weaknesses of observational methods

I used the strengths of observational methods to describe and explore the constraints and enablers in the formal context of students' choices. In video-recording lessons at both sites, I focused on documenting educators' interactions with students and infrastructural issues that hampered student work. I also wrote research journal notes after each lesson to capture related insights.

I analyzed these videos and notes to describe first-hand the contextual issues that occurred in class. I identified enablers and constraints by developing an understanding of patterns and relationships at both sites. An analysis of the educator's discussions with students and related inter-peer discussions in class also proved helpful for uncovering how social relationships in class and at home influenced students' choices (Noakes, 2013). Another important benefit of classroom observation was that it provided an informal opportunity to ask questions of individual students, for example concerning their "unofficial" practices in visual culture when their educator was busy elsewhere.

To address a potential weakness in observational research concerning reactivity (Given, 2008), both the educator and I asked all students to ignore the camera and behave as they normally would. Despite this request and me trying to be as unobtrusive as possible, some students did play up for the camera occasionally. However, this was a rare occurrence and each educator believed that students' activities were fairly representative for his or her group's year. To avoid the danger of mind reading rationales from observations of students, I did not use video-recordings to guess students' reasons for particular actions. These were only sourced if explicitly stated in video-recordings or described in interviews.

Data collection and rationale

Owing to the dynamic nature of the development of the research questions, I collected data in a dynamic and broad process. This was intended to enable a flexible response to a range of questions, while also being able to develop a rich and deep qualitative picture. My research project changed its focus several times during the fieldwork process. Its questions initially focussed on aspects influencing the adoption of digital portfolios at

school. Questions shifted to describe how inequalities in teenagers' circumstances came to be reflected in their e-portfolio styles.

Research instrument matrices²⁹

Table 6. Common research instruments for the government and independent school

Research instruments for both sites	Question 1	Question 2
DOE curricular adviser interviews		✓
IT support interviews		✓
Carbonmade "Meh!" screengrabs	✓	

Table 7. Research instruments used at the independent school

Research instruments at independent school	Question 1	Question 2
Classroom videos	✓	✓
Grade 10 e-portfolio screengrabs (2010)	✓	
Grade 11 e-portfolio screengrabs (2011)	✓	
Grade 12 e-portfolio screengrabs (2012)	✓	
Online portfolio questionnaire	✓	✓
Out-of-class questionnaire	✓	✓
Peer-review forms	✓	
Student interviews	✓	✓
Educator interviews	✓	✓

Table 8. Research instruments used at the government school

Research instruments at government school	Question 1	Question 2
Classroom videos	✓	✓
Grade 11 e-portfolio screengrabs (2012)	✓	
Grade 12 e-portfolio screengrabs (2013)	✓	
Online portfolio questionnaire	✓	✓
Out-of-class questionnaire	✓	✓
Peer-review forms	✓	
Student interviews	✓	✓
Educator interviews		✓
School historian interview		✓

Data sources and rationale

The sources of evidence I captured are listed in tables 6, 7 and 8. To describe students' choices and explore their circumstances, I collected data during three fieldwork stages: Before e-portfolio curricula could be launched, I did unstructured interviews with educators and key decision makers to learn about the issues involved when launching online portfolio software with their students. In the second stage, all e-portfolio lessons were video-recorded and I made research journal notes for each lesson. All students completed questionnaires concerning their participation in; the visual arts subject, e-portfolio production and related out-of-class activities. Screenshots were taken of all students' e-portfolio pages at the end of each e-portfolio curriculum. The final stage followed a content analysis of all students' choices, after which I conducted structured interviews with a cross-section of students.

The data sources I used comprised: feedback from educators, IT support and curricular advisers in unstructured audio and video interviews; classroom behaviour recorded in videos of e-portfolio lessons; feedback from all students in two questionnaires; e-

²⁹ Separate matrices were created for the independent and government schools for showing the minor differences in research tools used at these sites.

portfolio design choices captured in screen grabs taken annually for every page each student produced; and semi-structured interviews from select students.

I. Educator, curricular adviser, school IT support and PR staff interviews

Mr. Proudfoot and Mrs. Zahra gave interviews concerning their teaching approaches and the provision of classroom infrastructure and related issues. They also spoke about their use of social media and reactions to students' e-portfolio choices with insights into students' circumstances. I recorded their interviews for important contextual information on the schooling environments and students' situations. A representative from school IT was interviewed at both sites to better understand the constraints that shaped students' use of school IT infrastructure for e-portfolio curation.

The history of the independent school could readily be sourced from its publications and alumni's varied contributions to online resources. By contrast, the government school did not have an official website during my fieldwork, nor were any books published on the school's history. To describe its background, I interviewed the school's historian and public relations officer. She also kindly provided me with related photocopies from her historical archives of staff and newspaper articles and photographic images.

The DOE's two curricular advisers for visual arts and design were interviewed to better understand the diverse schooling contexts in South Africa and related challenges to the creative appropriation of e-portfolios.

II. Classroom videos

All e-portfolio lessons were video-recorded in following the example of Jewitt's educational multimodal research (2006, 2009). I originally started using two video cameras as recommended to record the 'big picture' of classroom interaction and what students are doing with a particular application (Jewitt, 2006). After viewing four videos of the first two lessons, I decided that the video of classroom interaction was not effective since it could not cover the whole visual arts studio space that students moved around in (this was a dual lecture/studio area with table desks and a linked studio with easels, tables, cleaning and artwork storage facilities). One camera proved sufficient to follow the educator and record his lessons and guidance to individual students. I also taped any issues pupils discussed concerning their formal circumstances with their educator and "unofficial" domains they shared in class.

III. E-portfolio and out-of-class questionnaires

All research participants completed an *online portfolio curriculum* and an *out-of-class* questionnaire (see Appendix). The former sourced several questions modified from the *Shuttleworth Foundation's m4Lit: Pre-story teen survey*³⁰ due to a shared research focus in exploring students' uses of digital technology in formal contexts. In mine, students' feedback to the online portfolio questionnaire was used to understand their demographic details and interests in school, the visual arts subject and online portfolios. It also helped frame students' formal access to arts resources and support. By contrast, young people's *out-of-class* questionnaire feedback was helpful for contextualising their extra-mural participation in digital media production and fandoms. It was also helpful for analysing their disposition to (and engagement of) online audiences.

³⁰ This questionnaire was originally developed by Tino Kreutzer under the Creative Commons-license. Please visit <http://www.tinokreutzer.org> (2018) for further background.

IV. Screenshots of the Carbonmade Graphic User Interface (GUI)



Figure 11. Screenshot of 'Projects' page selected in Carbonmade GUI, 2011

To identify all data fields that students might choose to enter or ignore, I took screenshots in 2011 of all Carbonmade's GUI pages for its free service. These comprised the following seven pages- opening, change thumbnail, projects, about, personalize, settings and upgrade. The choices on each were collated into a comprehensive index of the representational and communicational fields that could be chosen. These pages were also referenced to understand Carbonmade's default settings and how they defined the generic structure of its online portfolios.

V. Annual screenshots for all students' e-portfolio pages

Students' e-portfolio choices were recorded by capturing screengrabs for all their e-portfolio pages at the end of each year's e-portfolio curriculum. Pupils' choices were then transcribed by page type, with template choices being listed under the homepage. Five types of snapshot content (1 Template style, 2 'About' page content, 3 Artwork project folder content, 4 Homepage style and 5 Search engine pages) have been detailed in Addendum C. Each type was analysed to detail students' self-presentation and portfolio curation choices. Diachronic examples were studied to define the changes that students made over up to a three-year period.

VI. Follow-up, repeat student interviews

A cross-section of students was chosen for a wider range of feedback in two structured, in-depth interviews. The first involved stimulated recall with e-portfolio page types' screengrabs in NVivo that were grouped by type and organised by year. This gave students the opportunity to describe the significance of their e-portfolio choices and omissions. The second interview focussed on the social aspects of their e-portfolio production work at school and at home. The first interview enabled me to describe students' varied rationales for the choices, while the second supported an exploration of students' diverse circumstances in e-portfolio production.

VII. Research journal notes

My hand-written research journal notes were transcribed and analysed to frame the development of my research process in this methodology.

Strengths and weaknesses of multiple case study methodology

The strengths of using a multiple case study method lay in it providing rich, longitudinal information about students' e-portfolio use in formal and informal settings. This allowed new ideas and hypotheses to emerge from detailed and careful observation. Such rich ideographic information promoted critical thinking on existing theories, as this project attempted to do with multimodal theory (Kress, 2006; Jewitt, 2010). Another strength lay

in its content analysis being unobtrusive, thereby avoiding the errors associated between the interaction between researchers and subjects (such as observation effects). The accurate reflection of students' e-portfolio production choices should contribute to my research findings being trustworthy and resonating with media researchers, educators and other key decision makers involved in the creative appropriation of e-portfolios as an assessment strategy.

There are important limitations in my project's findings that stem from its use of case study methodology to describe just twelve cases. This methodology may not support accuracy, its causal links may be hard to test and generalisations cannot be made from single case studies (Terre Blanche, Durrheim & Painter, 2006). My low degree of control precluded overall generalisability (Mouton, 2009). Although my research was credible for the cases it described, these do not have *external validity* (Campbell & Stanley, 1963) in being applicable to other settings. Nevertheless, my sampling did follow a maximum variation approach to obtain the broadest range of information and perspectives from its participants. Insights from their diverse practices and contrasting contexts may well be transferable to similar settings (Lincoln & Guba, 1985). As a pathfinder research project, mine produced new knowledge concerning visual arts students' e-portfolio styles, practices and contexts. These insights may well be useful for educators and decision makers in well-resourced schools.

Further issues in the project's findings may stem from my assumptions concerning its participants and the complexity of the social contexts I study. These issues have been identified as stemming from two of the emphases present in research on young people's media productions (Buckingham, 2007); teenage students are defined as both active producers and consumers/audiences and understanding each student's point of view on his or her own terms:

Celebrating youths' sophistication as users of media can result in the neglect of the fact that there are areas they need to know more about. My research addressed this by identifying important constraints in students' cultural capital, while supporting educators with addressing gaps in students' critical skills. In Chapter Seven, I also raise issues that still require pedagogical intervention; such as students being unable to anticipate diverse online audiences or having difficulty making organisational choices for coherent multimodal designs.

In purporting to represent the interests of adolescents, there is a real danger of assuming that adults can easily speak on behalf of teenagers. I was mindful of my privileged background leading me to unfairly neglect or otherwise misrepresent the experiences and voices of marginalised, under-resourced and/or shy young people. My research strove to avoid this through repeated interviews with students that gave them an opportunity to voice their opinions. Further, my cross-section of case studies highlighted important differences in students' practices, reflecting a range of adolescent voices with different dispositions and resourcing. This enabled me to describe the resourceful ways in which under-resourced students made workarounds. In addition to combating a deficit model of students, the student-centered approach of CAR and multimodal research also helped reveal how some students perceived that there was limited (or no) scope for their "unofficial" visual creative interests in the visual arts syllabus.

A weakness of my longitudinal study's data lies in some of the data being over five years old. Technologies and access to them can change rapidly, which may result in today's

teenagers using different services for pursuing “unofficial” interests online. For example, Whatsapp has largely supplanted Mxit and Blackberry Messenger in South Africa as the most popular mobile phone social chat service (Alfreds & van Zyl, 2015). Learners may also make very different self-presentation choices now in response to broader cultural trends. For example, the growth in Instagram’s popularity and the rise of the Instafamous and ‘Rich Kids of Instagram’ phenomena (Marwick, 2016) could mean that a selfie culture is now entrenched amongst affluent independent school students. The next chapter describes the evidence for particular patterns in e-portfolio styles at each site. These patterns emerged from a content analysis of all participants’ self-presentation and portfolio curation choices.

Chapter 4: Achievements in e-portfolio styles at an independent and a government school

Analysing representational and communication choices

The content analysis that follows describes students' disciplinary and "unofficial" representational choices in self-presentation and in organizing their portfolios. It also describes choices intended to support communication with their e-portfolios' audiences: I explored differences in the extent and types of choices that students made at their school in presenting themselves as being visually creative or in featuring other personas. While all participants were expected to remediate their best school and co-curricular artworks in an online showcase, several young people also translated their visual productions in "unofficial" settings, as well as adding information about related or other roles they valued. All students were also advised to make particular communication choices as educators attempted to protect youths' safety and artwork copyright online. Key patterns at each school have been described and contextualised for every category.

Key differences between the research sites and students' homes

In each sub-category, the tables for the 12 government and 17 independent school students' choices are separated by school to avoid direct comparison between them. As described in Chapter One, such direct comparison would be flawed as my sites varied significantly. Both schools offered very different infrastructural support and slightly different accommodation for cultural preferences and repertoires. The latter two shaped divergent e-portfolio syllabus design, lesson quantity and assessment strategies. My level of involvement as an action researcher also differed between both sites.

Different school sites with contrasting foci in visual arts teaching

The independent, Christian school's origins are steeped in British colonial history. Its secondary school was predominantly attended and taught by whites from the middle class. Parents of its students typically worked locally or abroad in prestigious industries ranging from finance to film. The school's ethos focused on producing 'well-rounded young men', whilst recognizing each 'individual's talent or interest and assisting in its development'. This was intended to suitably prepare students for taking their place in a 'dynamic international community'. In support of these ends, the private school provided learning opportunities in varied environments. These spanned its classrooms, chapel, sports fields, music and arts studios, local and international tours and social outreach programs.

In their arts studio, the Head of Department, Mr. Proudfoot, supported students to develop their visual creative skills by predominantly learning about, and imitating, Western European art masters. This conservative approach reflected the school's broader orientation towards preservation of tradition. Bourdieu (1984) identified as common to higher-education teachers with high levels of cultural capital a balance between a certain audacity and a prudent classicism. Mr. Proudfoot reflected this by refusing what he saw as the facile pleasures of popular taste, without venturing into the contemporary artistic avant-garde; exploring 'rediscoveries' rather than 'discoveries'. Teachers' cultural preferences are important in guiding students' emergent tastes and identities. Mr. Proudfoot's studio resembled a gallery in exhibiting students' recent projects on its walls.

He often played classical music in the background, while students worked. His arts studio environment strongly encouraged the assimilation of highbrow culture.

The government school started as a “Coloured” school and attracted students from middle and working-class households. The majority of teachers at the school were black and the government school was secular. It had a proud history of being part of the anti-apartheid struggle, while also providing the foundational education for several prominent South Africans and other professionals. The visual arts educator, Mrs. Zahra, viewed herself and her colleagues as social workers who provided support for keen students. Such support was important in potentially assisting these youths with overcoming their circumstances. Several of her students secured sponsorship for tertiary education places, which supported better job opportunities.

Although Mrs. Zahra was privileged to have two studios for the visual arts subject, she was concerned that its digital information infrastructure was unreliable. Her studios’ old tables and chairs also need to be replaced. She set the curricular projects, which focussed less on the Western visual arts canon and more on ‘art as therapy’. She did this to create a safe space in which students produced artworks that supported reflection about shared community concerns (such as drug and sexual abuse, gangsterism, etc.). Her teaching focus resonated with a broader multiculturalist struggle against an élite culture dominated by Western tradition in working class schools (Freire, 1970, 2014). Mrs. Zahra used images and music from the popular cultures that her students were fans of as educational resources. Mrs. Zahra also believed that playing popular R&B and hip-hop YouTube music videos in class helped students to focus. Her classroom walls featured a wide range of practices from visual culture, from Islamic calligraphy to her class’s matric photographs.

Digital divides in broadband and mobile internet access

As described in Chapter One, there are major differences between the digital information facilities that the independent school offered its visual arts students versus the government school. At both sites, students’ feedback on their access to computers, cameras and scanners for e-portfolio production work described many being better resourced at home than at school (online portfolio questionnaire feedback, 2010, 2011). This suggested that the inequities between what privileged and relatively under-resourced home spaces provided students were even wider than their schools.

All independent school students had internet access at home or in their boarding houses. By contrast, just a few government school students had such access at home. Mobile phones were ubiquitous at both sites and only one government school student did not provide a personal mobile phone number as a preferred daytime contact number. The most privileged students at either site had the advantage of being able to access the internet on their mobile phones and home computers. They could use the latter as a ‘free’ resource for e-portfolio curation and “unofficial” participation in digital affinity spaces. Although most government school students described ‘always or often’ having access to computers outside school, few used these for e-portfolio curation since they lacked internet access. Less well-resourced youth were reliant on costly mobile broadband when they attempted to update e-portfolios at home. The least-resourced teens could only access the internet in their school’s computer lab, in friends’ homes or as a free service in government libraries (Walton & Donner, 2012).

Differences in e-portfolio teaching at the two sites

There were large differences in the e-portfolio curricular design, lesson quantity and extent of e-portfolio integration into syllabi: Independent school students benefitted from the integration of e-portfolio curricula into the visual arts subject syllabus in twenty six lessons over a three-year period. Students' e-portfolio curations were assessed during 2011 and 2012 and contributed towards their end-of-year results. By contrast, the government school students volunteered for ten lessons that were optional to their syllabus and were not assessed by Mrs. Zahra.

Differences in my action research contributions to both sites

I made very different contributions in my role as an action researcher at each school: I assisted Mr. Proudfoot in creating his first social networking presences and online portfolio. He then prepared an e-portfolio curriculum, which I gave advice on refining based on our lesson experiences with his students. I also provided advice on diverse assessment strategies and content ideas for new e-portfolio curricula. I had limited interaction with his students in lessons, since I was focused on recording his lessons or writing in my research journal.

At the government school, Mr. Alec, Mrs. Zahra and I revised the e-portfolio curriculum guidelines to better suit prospective student volunteers. I taught e-portfolio curation to volunteers during visual arts lessons. I also taught desktop computing basics and provided technical support for learners, since both could potentially stop teens' e-portfolio curations. Although I taught the students, they regarded their teacher to be Mrs. Zahra and I could not assess their work. Instead, I organized peer assessment between volunteer pairs. At the end of the curriculum, my volunteers showed their e-portfolios to their visual arts classmates.

Self-presentation, portfolio organisation and communication choices

I. Self-presentation

Young people's digital personas could comprise many aspects. This section focuses on aggregated results for students' choices in their self-descriptions and self-imagery:

I.1 Differences in self-naming choices in e-portfolio and sub-domain titles

The strong disciplinary influence of an 'art master' identity was evident in independent school students' self-naming practices. Students were taught to use their real names and expected to use their real (first and last) names in their e-portfolio title and for their Carbonmade web address setting. As free users, students could specify a sub-domain for their website that automatically preceded the 'carbonmade.com' top-level domain. For example, I could specify that my web address be *travisnoakes.carbonmade.com*. From 2011, e-portfolio titles were assessed on compliance with a format that included their first and last names and most students complied. Students' overall conformity in choosing names evidenced the importance of complying with a community's expectations (Gatson, 2011), in this case their educator's visual arts class.

Several students used their first and last names for their sub-domain specification to match this guideline. A few also mirrored their school's tradition of teenage boys being addressed by their surname only. These learners emphasised their surname by using just their first name's initial or its abbreviation before their surname. The most unusual were the use of a first name followed by 101 (commonly used to denote an entry-level course or a 'basic introduction' (Mcintosh, 2013), often with no pre-requisites. Another student

used his school's colloquial name. This alarmed Mr. Proudfoot in potentially being misread as an official school site.

The diversity of government school students' self-naming choices was tied to their freedom to explore choices other than their true names. In addition to matching their offline name to their online one, students were also introduced to pseudonymous, fake and corporate identities. This approach reflected the less-prescriptive ethos that Mrs. Zahra and her colleagues recommended to me in reworking Mr. Proudfoot's e-portfolio curriculum. In response to being taught a variety of self-naming strategies, the volunteers responded by using various options: several did not use names; some chose pseudonyms; a few used a monicker or a nickname; and one used a name similar to an email (or chat) address. Of the students who did not use names; two left their e-portfolio titles blank, one titled hers after an emotion and another used a philosophical statement. Unusual sub-domain choices included a student whose name reflected her interest in Japanese culture, while another chose a name similar to that used in a chat service.

There were an interesting gender differences in students' naming choices. Only one young woman chose to use her full name. "Lesley-Ann", "Dina" and "Melissa" believed that concealing their full names was an important strategy to prevent harassment from online stalkers. The young women learnt this from personal experience or from what their girlfriends told them. This resonated with particular narratives warning users to beware of wide-ranging abusive practices, such as unwanted sexualised approaches to women (Lee, 2006).

1.1 Contrasts in lengths and generic types of self-description

Table 9. Number of sentences used in independent school students' self-description

Number of sentences	Independent school students	Percentage
31- 40	1	6%
21 -30	4	24%
11-20	9	53%
1- 10	1	6%
0	2	12%

Table 9 shows that independent school students' self-descriptions were a variety of lengths, averaging between eleven and twenty sentences long. Most students took advantage of the three lessons they had to prepare their profiles in grade 10. They also had lesson time to update their profiles in grades 11 and 12 for formal assessment.

In preparing self-descriptions on 'About' pages, students could also reference different written genres and associated discursive styles. For example, drawing upon styles in a letter of application (Henry & Roseberry, 2001), the curriculum vitae or web resumé (Killoran, 2006) and social network profile (Paechter, 2013). The young men were not given explicit guidelines concerning the style of address they should use. Their profiles manifested a strong disciplinary influence in most pupils choosing formal styles; several chose to use an autobiographical style. A few wrote letters of introduction or used an informal conversational style. None followed social network, SMS or chatroom styles.

Overall, their formal genre choices resonated with those used by (upper-)middle class American teens who used language to construct their identities in a way that detached itself from "everyday" social interaction and oriented more towards their personal biographical trajectories (Gee, Allen & Clinton, 2001). This was done through an

achievement space defined by the (deeply aligned) norms of their families, schools and powerful social institutions.

Table 10. Number of sentences used in government school students' self-description

Number of sentences	Government school students	Percentage
31- 40	0	0%
21 -30	0	0%
11-20	0	0%
1- 10	12	100%
0	0	0%

Government school students received two lessons in which they were instructed and assisted with preparing their profiles. Table 10 shows that all twelve volunteers prepared descriptions that ranged from one to ten sentences in length. Such descriptions tended to be informal in style; many chose to use a conversational style and a few used chat room conversations (a student capitalised all his text, while another just used lower case and emoticons in eight sentences that flowed without stopping). "Lesley-Ann" used a social network style of 'likes'. None of the volunteers chose to use brief autobiographies or letters of introduction. Such informality resonated with American working-class teens who used language to fashion their identities in a way that was closely attached to a world of social and dialogic interaction (Gee, Allen & Clinton, 2001).

1.2 Differences in genres of self-representation in profile image

Table 11. Genres of self-representation chosen by independent school students

Genre	Independent school students	Percentage
Self portrait from syllabus	6	35%
Self portrait photograph	4	24%
Photograph within a group	4	24%
'Selfie' photograph	0	0%
None	2	12%
Other	1	6%

The independent school students were instructed to use self-portraits from classroom projects in drawing and painting, rather than the photographs that most first added. The avoidance of photography, and particularly the popular selfie³¹ genre of vernacular mobile phone media (Bussetta & Coladonato, 2015), was imposed by the teacher. It marked the strong disciplinary foundation that Mr. Proudfoot wished to emphasize while also marking distinction, a class-based preference for the exclusivity of fine arts. The use of conventionally 'painterly' or 'drawn' portraits subtly shifted youth identities to a disciplined one by moving the focus onto the work rather than the person. Table 11 shows that while several of the group complied with this instruction, most continued to use more conventional photographic portraits or group portraits. A few pupils distinguished their photographs from others by retouching them with effects from photographic software.

³¹ The 'selfie' genre is defined as a self-portrait photograph that is taken by its subject within arm distance and typically uploaded to a social media website (Hornby, 2010).

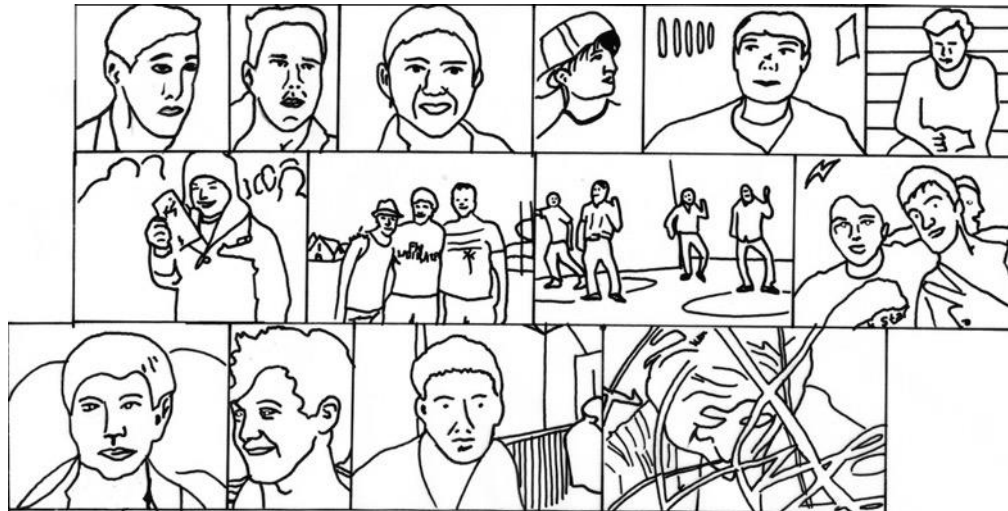


Figure 12. Sketches of the independent school students' self-representations, 2012

Table 12. Genre of self-representation chosen by government school students

Genre	Government school students	Percentage
Self portrait from syllabus	0	0%
Self portrait photograph	3	25%
Photograph within a group	0	0%
'Selfie' photograph	4	33%
None	5	42%
Other	0	0%

The government school volunteers were asked to upload a portrait of themselves in any media. Their profile pages showed the strong influence of mobile phone communication styles on these teenagers' descriptions and self-imagery. Table 12 shows that several of the group chose to use selfies. A few students published photographic self-portraits. In student conversations, they highlighted that ease-of-preparation and re-use were important criteria in their visual self-representation. Students who did not upload images raised issues concerning access to technology or personal privacy concerns. No self-images were retouched using photographic software effects.



Figure 13. Sketches of the government school students' self-representations, 2012

I.3 Visual arts student identity and disciplines mentioned in students' self-descriptions

Table 13. Visual arts student roles and practices mentioned by independent school students

<i>Roles and classroom activities</i>	<i>Independent school students</i>	<i>Percentage</i>
Visual arts student	15	88%
Draughtsman / drawing	14	82%
Painter / painting	10	59%
Designer / graphic design	7	41%

Almost all independent school students presented their visual arts student identities. This mirrored the strong influence of visual arts pedagogy, the e-portfolio syllabus' guidelines for the disciplinary self and its ongoing assessment. Experimentation with alternate online personas (such as anonymous or aliased identities) were not included in their educator's teaching and assessment strategies. As per Table 13, most students described their drawing work and paintings, while a few mentioned their graphic design work. This echoed students' habituation to these medias in arts studio lessons; drawing was a foundational discipline that was done often, painting less so. Graphic design work was seldom done. A few learners left their profiles blank, while "Harry" described his disinterest in the visual arts subject's repertoires.

Table 14. Visual arts student roles and practices mentioned by government school students

<i>Roles and classroom activities</i>	<i>Government school students</i>	<i>Percentage</i>
Visual arts student	6	50%
Draughtsman / drawing	10	83%
Painter / painting	5	42%

Table 14 shows that half of the government school participants described themselves to be visual arts students. Most described their drawing work, some their painting, but none their sculpture. As volunteers, it was unsurprising that none described being disinterested in the visuals arts. "Lesley-Ann" chose not to list or describe her involvement in drawing and painting. This choice was part of her strategy to distance her online musical performer's persona from potentially uncool school ones.

I.4 Expertise (specialities) and skills

At both sites, most students chose to list their specialities (Carbonmade changed the term 'expertise' to 'specialities' in 2013) and also to add their skills. Those that youth listed spanned their formal and "unofficial" practices.

Table 15. Choices of skills and expertise by independent school students

	<i>Students</i>	<i>Percentage</i>	<i>Students</i>	<i>Percentage</i>
None	4	24%	4	47%
<i>Formal</i>	<i>Formal</i>	<i>skills</i>	<i>Formal</i>	<i>expertise</i>
Painting	8	47%	7	41%
Graphite pencil drawing	7	41%	11	65%
Corel Draw	4	24%	1	6%
Charcoal	3	18%	4	24%
Design	2	12%	4	24%
Pastel	1	6%	0	0%

Table 15. cont.

	"Unofficial" skills		"Unofficial" expertise	
Photography	3	18%	5	29%
Filmography/videography/video editing	2	12%	1	6%
Collographs	1	6%	0	0%
Printmaking	1	6%	1	6%
Stencils	0	0%	1	6%

Similar to their self-descriptions, independent school students predominantly described painting and drawing practices as their skills and expertise. Mr. Proudfoot emphasised the importance of both disciplines by regularly organizing their display on the art studio's walls. Table 15 demonstrates that several youths listed "unofficial" visual creative skills and expertise in photography, filmography, videography and video editing. This showed privileged access to digital infrastructures at home.

Table 16. Choices of skills and expertise by government school students

	Students	Percentage	Students	Percentage
None	3	25%	2	16%
	Formal skills		Formal expertise	
Graphite pencil drawing	9	75%	7	58%
Painting	5	42%	4	33%
Installation art	2	16%	0	0%
Sculpture	1	8%	0	0%
Collage	1	8%	0	0%
	"Unofficial" skills		"Unofficial" expertise	
Photoshop	5	42%	0	0%
Mixed media	3	25%	1	8%
Animation	1	8%	1	8%
Graffiti	1	8%	0	0%
Pastel	1	8%	0	0%
Photography	1	8%	0	0%
Design	0	0%	3	25%
Calligraphy	0	0%	1	8%
Character design	0	0%	1	8%
Pattern making	0	0%	1	8%

The skills and expertise that government school students listed were also closely tied to their formal practices; pencil drawing and painting were often listed. The range of "unofficial" skills and expertise that students mentioned was broad, as Table 16 shows. Photoshop, design and mixed media were the most commonly listed.

Such a broad range of skills was matched by the wide range of popular visual creative imagery published by the volunteers. This included drawings inspired by Japanese pop culture (manga, character artwork and animé), portraits showing music fandom (hip-hop, R&B, "emo" rock and electro), graffiti in computer-based and wall stencil media and emotive card designs for relationships. Such "unofficial" practices reflected the leisure consumption of the better-resourced volunteers.

I.5 “Unofficial”, visual cultural roles mentioned in students’ profiles

Table 17. “Unofficial” visual creative roles mentioned in independent school students’ profiles

“Unofficial” roles in visual culture	Independent school students	Percentage
Photographer	8	47%
Photo editing software user	7	41%
Arts society member	4	24%
Other portfolio creator	3	18%
Graffiti artist/stenciller	3	18%
Videographer	2	12%
Blogger	1	6%
Fashion designer	1	6%

At the independent school, most young men added information concerning their “unofficial” roles in visual culture. Table 17 shows that these roles ranged from those legitimated in co-curricular spaces (such as the accelerated art society) to those the syllabus excluded (like graffiti). A few students described their involvement in arts societies, which followed their school’s expectation that its learners should participate in extra-mural societies. These extended their school subjects and a few pupils described their exposure to varied domains (such as printmaking and photography) that the pupils otherwise would not have been taught.

Some of the other “unofficial” roles the young men described reflected their privileged access to exclusive digital infrastructures and cultural capital. For example, video editing is a well-known barrier to high quality media making by non-professionals (Green, Schofield, Pritchard, Olivier & Wright, 2017). Both “Kyle” and “Gary” overcame this through developing the specialist vocabulary and technical skills for producing high quality water sports videos.

Table 18. “Unofficial” visual creative roles mentioned in government school students’ profiles

“Unofficial” roles in visual culture	Government school students	Percentage
Photo editor	3	24%
Photographer	2	16%
Fashion entrepreneur	1	8%
Mixed media artist	1	8%
Other portfolio creator	1	8%

Table 18 shows that just a few government school students added information about their “unofficial” visual creativity. The most common roles mentioned related to photography, which students pursued at home. One rationale for their school not offering “unofficial” visual arts or design societies is that many students have to travel long distances. If they leave school later than 3 pm, they were at a greater risk of crime when arriving home at dusk. As a result, its educators were not encouraged to arrange “unofficial” activities after school closes. However, the school did support; chess, environmental, hip-hop dance and newspaper quiz clubs.

I.6 Participation in other leisure activities

Students at both sites were encouraged to focus on presenting their visual creativity and to exclude extraneous details. Nevertheless, young people added other cultural capitals that they valued. Youths’ digital personas could mark social distance by featuring involvement in music, sports, outdoor leisure activities and/or tourism.

Table 19. Other valued cultural capital described in independent school students' profiles

<i>"Unofficial" roles outside Visual Culture</i>	<i>Independent school students</i>	<i>Percentage</i>
Sports participant	13	78%
Music fan	7	42%
Socialiser	5	30%
Tourist	4	24%
Musician	3	18%
Family member	3	18%
Member of other societies	1	6%

Table 20. Other valued cultural capital described in government school students' profiles

<i>"Unofficial" roles outside Visual Culture</i>	<i>Government school students</i>	<i>Percentage</i>
Sports participant	3	24%
Music fan	2	16%
Socialiser	2	16%

Musical fandom and musicianship

According to Bourdieu's French data, social origin was the strongest determinant of children's participation in visual art and music (Bourdieu, 1984). This trend is reflected in my study and social reproduction was evidenced at both sites in the extent and types of musicianship and music fandom that students described:

In grade ten, government school students could study select arts subjects, which included music, dance, visual arts or design. Two students at the government school described being music listeners in their profiles (see Table 20). No students described playing musical instruments. This could reflect their social origin from working class families. Their parents were unlikely to possess the cultural capital or time required to teach music at home or have the economic means to buy musical instruments (Bourdieu, 1984).

Independent school students could also choose to study music and visual arts. Their affluent home environments readily supported access to the necessary cultural capital (through musical parents, routinized training by music teachers or online lessons) and could cover the economic costs of music paraphernalia (Atkinson, 2011). A few independent students described playing music (see Table 19), the most prolific being "Harry". He listed his involvement in; singing, playing guitar, drum kit and classical and African marimba. Several of his classmates described listening to music and a few provided distinctive descriptions concerning their music preferences. Students listed recent music genres (Hanquinet, 2013). These included those of bourgeois origin {rock and alternative}, which are considered more artistic than commercial (Atkinson, 2011). Youth also mentioned commercial genres of dance music (house and dubstep) and more experimental ones (electronic and 'D&B' {drum and bass}). Such descriptions presented young people as enjoying varied musical stimuli (Hanquinet, 2013) and revealed their economic and cultural privilege as 'omnivorous' consumers (Peterson, 2005) of varied musical (sub-)genres.

Sports and outdoor activities

Similar to music, Cape Town students' access to and participation in sports is also strongly shaped by social origin and apartheid's legacy of inequality. Sports participation varies significantly across gender, age, race and socio-economic groups (City of Cape Town, 2011). In Cape Town, most students who participate in sport do so at school

through physical education classes and playing team sport. Such participation reflects social stratification, which is especially noticeable where highly specialised skills and knowledge (or cultural capital) and infrastructure are needed for supporting ongoing participation (Widdop & Cutts, 2013). For example, the independent schools that predominantly serve the middle classes typically offer cricket, golf, rugby and water-sports. All these require infrastructure that is costly to setup and maintain, as well as high levels of coaching support. By contrast, government schools are more likely to offer football, netball and basketball. Such sports generally require cheaper infrastructures and less coaching.

The majority of independent school students showed that their sports involvement was important by describing it. Most young men described sporting attainments as their proudest school achievements in questionnaire feedback. This reproduced their school's emphasis on developing character through sport. Such participation provided opportunities for students to express values such as courage, energy, initiative, leadership and will (Bourdieu, 1984). At the independent school, physical education lessons and team sport participation were mandatory. The latter included sports played by many Cape Town students, namely; rugby, cricket and hockey. Such sports participation served as a middle-class marker of social distinction by requiring high levels of economic and cultural capital.

A few students chose to foreground their participation in sports that were almost solely the domain of high-income groups in Cape Town. These included water sports {rowing, water polo, surfing and sailing}, go-karting and golf (City of Cape Town, 2011). "Haydn" also described his involvement in the outdoor adventure activities of camping and hiking. While all students were involved in a curriculum to mark the Federation of International Football Associations' World Cup that was held in South Africa in 2010, only two described playing soccer (football). This reflected the limited opportunity of being a footballer at their school. Soccer was only offered for two weeks at the end of the winter (or "rugby and hockey") season.

Sports participation was voluntary at the Arts and Culture Focus school. It offered rugby, soccer, volleyball and netball. A few government school students chose to describe their sports involvement; "Herschelle" and "Nathan" "mentioned playing football in their profiles and featured related imagery, while "Leigh-Anne" listed liking dance.

Overseas travel

Overseas travel from South Africa is expensive and curating its consumption matched privilege: At the independent school "Thomas" described participating in an international yachting competition, "George" wrote about art gallery visits in Europe and "Mark" wrote about taking a gap year overseas.

At the government school, no one shared examples of international tourism. "Tamlyn" shared her photographs of a trip to Cape Town's Victoria and Alfred Waterfront, while "Herschelle" included photographs of his neighbourhood friends and family.

1.7 Combinations of disciplinary, "unofficial" and other personas

Young people curated varied roles in their profile and portfolio imagery choices. My analysis identified four disciplinary personas, 14 "unofficial" visual creative personas and 15 other personas, which have been indexed in Addendum F with an accompanying explanation of the challenges in identifying and coding such personas. Under disciplinary personas these ranged from draughtsman to designer, under "unofficial"

visual creative ones spanned from arts society member to videographer, while other personas ranged from writer/poet to tourist/sightseer.

Table 21. Combination of roles described by independent school students

<i>Student</i>	<i>Disciplinary roles</i>	<i>“Unofficial” visual creative roles</i>	<i>Other roles</i>	<i>Total number of roles</i>
Wesley	3	4	7	14
Kyle	3	6	4	13
Gary	3	6	4	13
Harry	3	3	6	12
George	3	4	4	10
Hui	3	4	3	10
Moneeb	3	2	5	10
Anthony	3	2	4	9
Thomas	3	3	2	8
Haydn	2	3	3	8
Mark	3	0	3	6
Pradesh	3	1	2	6
Henry	3	0	4	5
Thembani	3	0	2	5
Saliem	3	0	2	5
Shakur	3	0	0	2
Vikus	2	0	0	1
Totals (average)	47 (2.8)	38 (2.2)	53 (3.1)	148 (8.7)

The addition of valued “unofficial” visual creative and other personas was used by most independent school students to distinguish their e-portfolios (see Table 21). Most young men presented the three roles they were taught in class, but there was large variation between individuals in the number of “unofficial” visual creative and other roles they added. Many youths included other roles as valued cultural capital, while the addition of “unofficial” visual creative roles was less prevalent and extensive. Although a few students did not add the former and/or the latter, the majority of students featured over eight different personas in their e-portfolios. The capability to combine several personas marked privileged opportunities in experimenting with multiple emergent identities.

Table 22. Combination of roles described by government school students

<i>Student</i>	<i>Disciplinary roles</i>	<i>“Unofficial” visual creative roles</i>	<i>Other roles</i>	<i>Total</i>
Melissa	3	8	2	13
Herschelle	2	5	2	9
Dina	3	4	1	8
Kurt	3	4	1	8
Michael	3	2	3	8
Tamlyn	3	3	1	7
Lesley-Ann	1	1	5	7
Masibulele	2	2	2	6
Nathan	3	0	2	5
Faziel	3	2	0	5
Miriam	2	2	0	4
Tazneen	2	1	0	3
Totals (average)	30 (2.5)	34 (2.5)	19 (1.5)	82 (6.8)

Many government school students added “unofficial” visual creative personas to distinguish their e-portfolio work. More of the latter included personas which reflected their disciplinary roles as arts students (see Table 22). Only a few students added more than one other role.

I.8 Description of future study and work associated with visual creativity

Students interested in using their e-portfolios for future hobbies or work were encouraged to describe their desired social trajectories. In response, a few independent school students described wanting to study architecture, fine art, graphic- or fashion design. Studying at university is much less expensive than attending their school, so the cost of tertiary education would be unlikely to be an obstacle for most parents wanting to fund their sons’ studies there. Most students’ questionnaire and interview feedback reflected social reproduction in describing their interests in pursuing studies outside creative industry. These courses would be more academically difficult to access (such as Business Science and Medicine) and far more likely to result in an economically secure future.

By contrast, for the students from working class homes in Cape Town, attending university and graduating is a rare achievement. For example, only five percent of students from Athlone will enter university (Western Cape Department of Education, 2015). Several volunteers’ questionnaire feedback mentioned their intent to use e-portfolios for supporting post-school access to tertiary studies and gaining work in creative industry. The former would be an exceptional achievement given the financial context of their parents. Mrs. Zahra expressed doubts about her students being able to pursue future studies due to the hurdle of securing funding. She believed that almost all students would require bursary support to gain access. Only two government school students’ e-portfolios shared a desired trajectory; “Tazneen” aspired to be ‘an interior designer’, while “Miriam” wanted to ‘study visual art’.

II E-portfolio artwork organisation choices

II.9 Extent of artwork project folder use

At each site, all students were encouraged to create five folders, the limit to which Carbonmade restricts free users.

Table 23. Number of artwork folders used by independent school students

Folder number	Independent school students	Percentage
5	11	66%
4	4	24%
3	1	6%
2	1	6%
1	0	0%

Mr. Proudfoot detailed three folder types as mandatory for his independent school (for projects in colour, tonality and research processes³²) and two as optional (for “unofficial” projects and inspiration). Most students complied in using five folders (see Table 23). Only “Vikus” did not follow the prescribed folder naming conventions exactly.

³² To protect student privacy, I did not share the actual folder names. As discussed in Chapter Three, these could be used in text searches that might have identified my individual participants.

Table 24. Number of artwork folders used by government school students

Folder number	Government school students	Percentage
5	0	0%
4	1	8%
3	4	32%
2	1	8%
1	6	48%

I instructed government school students to organise their artworks into five folders by medium, theme or artistic subject. In response, half of the class created two folders or more, while the other half used one (see Table 24). Interview feedback suggested that almost all volunteers were familiar with using simple folder structures from operating Bluetooth to transfer files on their mobile phones. Pupils who were new to desktop computer-use struggled to manage folders and locate files on laboratory computers or to use email attachments. Such learners also described the lab's slow broadband speed as negatively affecting their interest in experimenting with using more folders. The difficulties they experienced suggested the combined importance of portfolio organisation via appropriate classroom ICT infrastructures and digital information habituses with the appropriate desktop computer experience.

II.10 Number of artwork project folder images

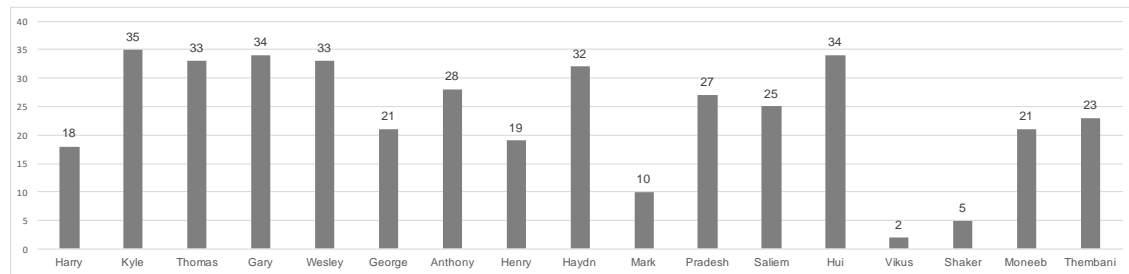
All students were taught to select their best and most recent artworks for a 'showcase' exhibition, rather than developing comprehensive digital archives. Mr. Proudfoot and Mrs. Zahra agreed that publishing 14 images would be sufficient to showcase a student's visual creative abilities.

Table 25 shows that most of the independent school participants uploaded over 19 images each. "Kyle" reached the 35-image restriction that Carbonmade placed on its free users.

Table 25. Extent of images uploaded by independent school students

Number of images	Independent school students	Percentage
35 {Maximum limit}	2	12%
<30 - 34>	5	30%
<25-29>	1	6%
<20-24>	4	24%
<15-19>	2	12%
<10-14>	1	6%
<5-9>	1	6%
<1-4>	1	6%
<0>	0	0%

Figure 14. Number of images uploaded by independent school students

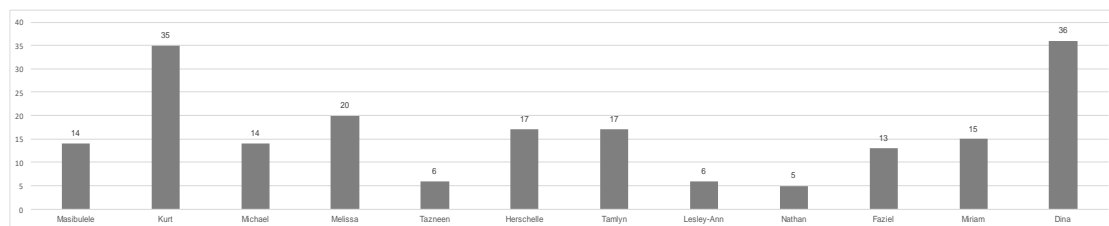


By contrast, most government school students uploaded over ten images (see Table 26). None of the students were satisfied with the slow and unreliable bandwidth available to them in the Khanya computer lab. Video evidence and students’ feedback showed that several struggled to upload more than four images during forty-minute lessons. Students who had internet access at home or on their mobile phones were at a distinct advantage in relation to those classmates who relied on the computer lab’s slow broadband. None of the non-internet connected students met the 14-image target for producing a holistic showcase.

Table 26. Extent of images uploaded by government school students

Number of images	Government school students	Percentage
35 {Maximum limit}	2	16%
<30 - 34>	0	0%
<25-29>	0	0%
<20-24>	1	8%
<15-19>	3	24%
<10-14>	3	24%
<5-9>	2	16%
<1-4>	1	8%
<0>	0	0%

Figure 15. Number of images uploaded by government school students



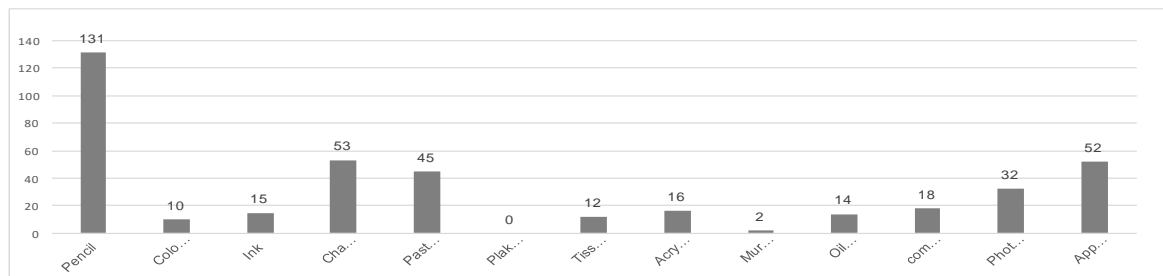
II.11 Medias and surfaces used in the students’ imagery sources

Students at both sites predominantly learnt to use drawing and painting medias. The cultural capital (Bourdieu, 1993) associated with this emphasis on these dominant visual arts disciplines was reflected in students’ remediation of images. Students’ remediation of different medias and surfaces could evidence privilege in their level of exclusivity. To explore this, I aggregated each media’s use by site.

Table 27. Medias used in independent school students' remediated work

Roles and classroom activities	Number of images	Percentage of imagery
Graphite pencil	131	38%
Charcoal	53	15%
Pastel	45	13%
Photographic	32	9%
Computer graphics	18	5%
Acrylic paint	16	5%
Ink	15	4%
Oil paint	14	4%
Tissue, glue and acrylic	12	3%
Colour pencils	10	3%
Mural painting	2	1%
Total	348	100%

Figure 16. Types and quantum of media digitised at the independent school



The independent school students' media choices (see Table 27) reflected the pervasiveness of hand-drawn, studio work in their syllabus. Graphite pencil work was the most uploaded media, while colour pencils and ink were also commonly featured. For painting, students' work was done in acrylic or oils, the latter marking privilege due to its cost and rare use in secondary visual arts education. Mr. Proudfoot described the parents of his students being keen that his visual arts department teach their children to use oil paints. The parents believe this meant their sons were being introduced to "real painting". Students also added images from the richly-resourced media environments of graphic design, where formal privilege was manifested through the inclusion of computer-generated posters. This media was legitimated through students being taught poster design using Corel Draw software; most students remediated graphic poster designs. In terms of surfaces, primed canvases or prepared hardboard were also markers of students' privilege. Their additional cost was covered by parents.

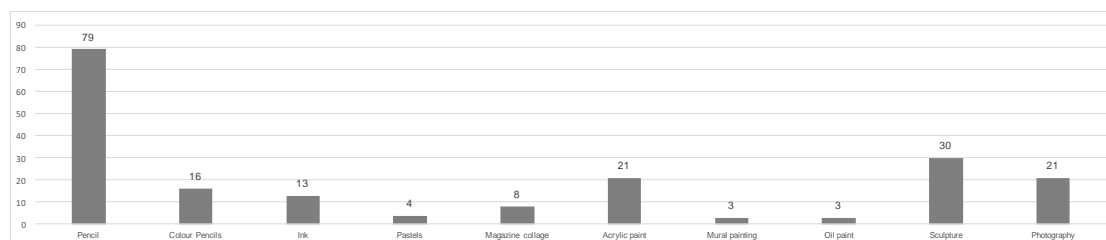
Most of the work that government school students uploaded featured medias from Mrs. Zahra's syllabus (see Table 28 overleaf). She provided the relatively inexpensive media of graphite and colour pencil works, ink drawings, acrylic paintings and those for sculpture in her class. The graphic design projects that youth shared were mostly from the cut-and-paste newsprint collage curriculum.

Table 28. Medias used in government school students' remediated work

Roles and classroom activities	Number of images	Percentage of imagery
Graphite pencil	79	40%
Sculptural media	30	15%
Photographic	21	11%
Acrylic paint	21	11%
Colour pencils	16	8%
Ink	13	7%
Magazine collage	8	4%
Pastel	4	2%
Mural painting	3	2%
Oil paint	3	2%
Total	198	100%

The importance of curricula at both sites was also evidenced through sculptural media being curated by government school students, but in no independent school ones. Sculptural tile patterns were taught to government school students in supplementary classes at an Art Centre, while Mrs. Zahra's curriculum on domestic violence included mannequin sculpture work. Most of her students curated at least one sculpture project. Some students also included imagery from co-curricular projects that involved pastels and oil painting and a few added their "unofficial" photographs.

Figure 17. Types and quantum of media digitised at the government school



II.12 Third-party imagery and attribution

Tight time constraints in the e-portfolio lessons prevented government school students being taught to appropriate imagery and none uploaded artworks by third parties. At the independent school, a few students took the initiative to share third-party computer game- and automobile design imagery in grade 10. In grade 11, Mr. Proudfoot taught his students how to appropriate and attribute inspiration in a specific folder of their e-portfolios.

Table 29. Third-party attribution by independent school students

Appropriation and attribution	Number of images	Percentage
Third-party artworks	13 (52 images)	78%
Attribution of all third-party artworks	7	42%

In matric, most students published inspirational imagery and several followed his labelling instructions for attribution (see Table 29). Most of the examples of works that had inspired students was tied to the local and international art 'masters' featured in Mr. Proudfoot's syllabus.

II.13 Hyperlinks to other portfolios

Although students at both sites were encouraged to add hyperlinks to co-curricular and "unofficial" visual creative portfolios, only a few added links to theirs.

Table 30. Hyperlinks to other portfolios from the independent school students' e-portfolios

Links to other portfolios	Independent school students	Percentage
Links to photography portfolio	2	12%
Links to videography portfolio	2	12%
Links to blog	1	6%

As shown in Table 30, a few independent school students chose to create additional portfolios using other services and added links to them from their e-portfolios. For example, "Kyle" added links to his flickr.com and vimeo.com portfolios; "Gary" added links to his YouTube channel and surf video competition entry and "Hui" added a link to his wix.com portfolio. Adding these links evidenced students' privileged opportunities to both study what they were not formally taught and be involved in capturing socially distinctive subject-matter. "Gary" and "Kyle" leveraged their involvement in body boarding and separately produced videos of their participation. This footage was edited into videos that were uploaded to YouTube, Vimeo and online video competition websites. "Gary" also added a link to a blogsite that he had developed for his boarding house.

Table 31. Hyperlinks to other portfolios from the government school students' e-portfolios

Links to other portfolios	Government school students	Percentage
Links to visual art portfolio	1	8%

At the government school, only "Melissa" added a link to her deviantart.com portfolio. Although a few of her classmates had also developed portfolios on other services, none added links to these (see Table 31). Voluntary student feedback at both sites from questionnaires, lessons and interviews suggested that the few links that young people provided were not a reflection of their growing engagements with social networking and online portfolio services in general (see Tables 32 and 33).

Table 32. Social networks that independent school students reported using

Social network	Students
Facebook	Harry, Gary, George, Haydn, Hui, Kyle, Saliem, Thembani, Vikus, Wesley
Twitter	George, Kyle, Gary, Harry, Hui, Saliem, Thembani, Vikus
LinkedIn	Gary, Hui
Google+	Gary, Kyle
Visual creativity	
Instagram	Gary, George, Hui, Kyle
Flickr	George, Kyle
DeviantArt	George
Wix	Hui
Pinterest	Gary
Videography	
YouTube	George, Gary, Kyle
Vimeo	Kyle
Wavescape	Gary
Blogging	
Wordpress	Gary
Acting	
IMDB	Gary

At the independent school, most students had social network presences, while a few had also created portfolios for sharing students' drawings, photography, videos and/or boarding house articles. "Gary" had also acted in a film and was credited with an actor's profile on Internet Movie Database (IMDb).

Several government school students also volunteered information about being social network users and having used varied online portfolio services (see Table 33) for sharing their drawings, paintings, photography, fashion creations, poetry, singing performances and inspiration.

Table 33. Social networks that government school students reported using

Social network	Student names
Facebook	Dina, Herschelle, Masibulele, Miriam
Black Berry Messenger	Masibulele, Herschelle
MXit	Miriam
Twitter	Lesley-Ann
Visual creativity	
Facebook pages or portfolios	Lesley-Ann, Masibulele
Pinterest	Masibulele
DeviantArt	Melissa
Behance	Melissa
Weheartit	Melissa
MyFolio	Melissa
Instagram	Lesley-Ann
Blogging	
Blogger	Lesley-Ann
Music	
Soundcloud	Lesley-Ann

The students who described making the most use of these services, were unusual in that they were already developing entrepreneurial identities related to informal creative productions. "Masibulele" was a self-taught fashion entrepreneur, while "Lesley-Ann" performed as a multi-platform artist {a singer, artist, songwriter and dancer) and "Melissa" was a fan of animation who aspired to work in the industry.

II.14 Labelling of digital infrastructure

Most students did not describe the digital infrastructures they used in remediating artworks and producing online portfolios. This reinforced the typically invisible quality of infrastructure (Star & Ruhleder, 1996). In the absence of information on digital infrastructure, it can be difficult for viewers to appreciate how differing contexts shaped the quantum and styles of visual and social information that users provided. For example, it is hard to spot that an under-resourced student has put a lot of effort in making workarounds to overcome slow and unreliable infrastructure versus an affluent student who can achieve much more with less effort. At the independent school, only "Gary", "Kyle" and "Hui" described their infrastructure in detail, possibly because it added to the distinctiveness of their e-portfolios. Their informal photography's titles shared information on their cameras, lenses and exposure settings.

III. Communication with online audiences

According to Kress (2010; 49), representation and *communication* are distinct social practices. Communication focuses on the individual's wish or need to make their representations available to others through interaction. Students could make particular communication choices in their e-portfolios by providing their contact details, through

selecting that an ‘availability for freelance work’ graphic be displayed and by adding a copyright statement:

III.16 Types of contact details provided

Mr. Proudfoot’s launch of a novel e-portfolio creation curriculum in 2010 enabled his students to reach audiences outside the traditional teaching and exhibition contexts. Although this included audiences that were desirable (such as parents and the DOE’s Curricular Advisers), he was most concerned around undesirable audiences (particularly paedophiles) being able to contact his grade 10 students. Consequently, his initial guidelines for communication choices sought to prevent direct, unsupervised communication from any e-portfolio viewer to his students.

Table 34. Contact details provided by independent school students

Contact information	Independent school students	Percentage
Location	9	54%
Mobile phone	4	24%
School email address	3	18%
Private email address	2	12%
Suburb in address	1	6%

Nonetheless, many of his students ignored this and provided their contact details (see Table 34). This resistance, combined with the fact that Mr. Proudfoot found it impossible to monitor student compliance due to teaching time constraints, led to him modifying these guidelines to be less restrictive. He assessed students on their compliance with not providing; their school email address, school name, telephonic contact details or home location. Several students did not list any location details or complied by just listing their hometown as a location. Only “Wesley” listed his home suburb, but a few chose to provide their email addresses and/or their mobile phone numbers.

Table 35. Contact details provided by government school students

Contact information	Government school students	Percentage
Location	12	100%
Private email address	11	92%
Mobile phone	3	24%
Suburb in address	2	16%

The volunteers created Google email addresses via Gmail.com, which enabled registration with Carbonmade. I adopted Mr. Proudfoot’s guidelines for my government school lessons: while listing specific location details was still discouraged, I asked students to enter their private email addresses since this format did not divulge their school’s identity. This change responded to feedback from most students wanting it to be easy for online audiences to contact them. Students also said they were aware of the risks of undesirable audiences and would avoid risky interactions. Most volunteers chose to provide their email addresses (see Table 35) and all listed their city location. A few chose to list their suburbs. “Herschelle” provided his home address. Some pupils added their mobile phone numbers.

III.17 Availability for freelance work listed

At both sites, students were discouraged from selecting the *Available for freelance work* button for display, since freelance work would have conflicted with their busy schooling schedule. Nevertheless, some students chose to display the button (see Tables 36 and

37). Interview feedback suggested they would be keen to do the work and thought they could accommodate it.

Table 36. 'Available for Freelance' button selected by independent school students

	Independent school students	Percentage
Freelance work-seeker	7	41%

Although several independent school students listed their availability, only a few listed contact details to support efficient³³ follow-up. Students explained that they had wanted to comply with Mr. Proudfoot's assessment strategy.

Table 37. 'Available for Freelance' button selected by government school students

	Government school students	Percentage
Freelance work-seeker	6	35%

Half of government school students indicated their availability and all provided email addresses to facilitate this.

III.18 Copyright statement

All students were asked to add a traditional copyright statement to the footer of their e-portfolio and to follow its prescribed format. Neither Mr. Proudfoot nor I had lesson time available for teaching Creative Commons copyright options. Many students either did not enter a copyright statement or use the traditional format (see Tables 38 and 39).

Table 38. Copyright statements added by independent school students

Copyright statement	Students	Percentage
No copyright statement added	7	41%
Curricular format	4	24%
Other format	6	35%

Some of Mr. Proudfoot's students did not add a copyright statement. Several pupils applied appropriate formats for protecting their authorial rights. A few expanded the format to include their home city. Such learners leveraged social capital from their parents and classmates. For example, "George" described following advice to expand the prescribed format from parents, who both worked in advertising. A few young men used configurations that were inappropriate.

Most government school students did not add copyright statements. Feedback during their peer assessment class revealed that for many learners this was their first experience of digital page design. Many were uncertain about what the related concepts, such as *headers* and *footers*, meant. Class videos also showed students inexperience with keyboard use. This included them being shown how to use the CAP(ital)S key and inserting symbols (like copyright) for the first time.

³³ Not revealing contact information on Carbonmade must not be confused with preventing students from being contactable, albeit relatively inefficiently. All independent school students had a Facebook account and many had other social media presences (such as Twitter). These students tended to use their real names in these presences. Consequently, online audiences could readily search using students' other presences. Strangers could contact them through these services, or using youth's contact details provided on their profiles.

Table 39. Copyright statements added by government school students

Copyright statement	Students	Percentage
No copyright statement added	8	67%
Curricular format	2	17%
Other format	2	17%

Table 39 shows that “Nathan” and “Shakir” followed the prescribed format, while “Masibulele” and “Melissa” used configurations that were unsuited for protecting their copyright.

Conclusion

The above content analysis thus revealed very different patterns in e-portfolio curation at each site. Patterns in the personas and portfolios that students curated, as well as their communication choices were closely related to their two schools’ contrasting visual arts syllabi and support for e-portfolio curation. The content analysis strongly suggested that the achievement of a showcase e-portfolio with modally dense digital personas is emerging as a new site of privilege. Differences in students’ personas seemed strongly tied to inequalities in their resourcing at school and their homes by association. This builds on Bourdieu’s claim that differentiation in tastes in leisure activities are based on social and cultural reproduction and reflect differences in classed resources and experiences.

At the independent and government schools, visual arts students made very different choices on aggregate in their curation of highbrow or emergent cultural capital. Direct comparisons between the patterns at each site are not valid due to big differences in their support for e-portfolio teaching and students’ resourcing. Nevertheless, elaborating the most salient differences that emerged between e-portfolio styles helps to grasp teenagers’ contrasting achievements. These differences evidenced the very unequal opportunities available at either site in terms of material, cultural and social resourcing, all key markers of social class (Bourdieu, 1984).

The provision of digital infrastructure and available support for it proved key for students’ satisfactory representation of showcase portfolios. Those teens who had access to consumer electronics and were well-connected to the internet were best placed to develop a digital hexis for e-portfolio curation. Such students designed modally-dense disciplinary showcases and used their infrastructural advantages to develop “unofficial” repertoires in visual culture and participate in related affinity spaces. Such extra-mural involvement in visual culture resonated with research into mobile-centric young isiXhosa speakers who used social networks and chat services for richer interactions with the written word in their everyday lives than those experienced in literacy teaching at school (Walton, 2010).

Students seldom made the digital infrastructures visible to their e-portfolio audiences. The independent school’s students used exclusive art materials and surfaces. These advantages were only discernible from their formal artworks’ labelling and imagery. Such students had opportunities to practice with the most expensive options, such as oil painting on canvas. Their school also provided co-curricular activities in exclusive domains, such as printmaking. Several learners curated these activities in their e-portfolios. Such remediation of exclusive materials and artistic practices could yield symbolic advantages in being associated with the traditional fine arts field, rather than

the lower-status one of school art. Independent school students were also taught how to appropriate and attribute their fine arts inspiration in e-portfolios. Although government school students also studied arts history, their school did not teach them how to digitally appropriate the artworks that inspired them.

At both sites, many young people shared “unofficial” leisure personas that represented their emergent cultural capital (Savage et al. 2013, Prieur & Savage, 2013) and marked their social distinction. Such practices were linked to cultural boundaries as they evidenced racial and gender-based preferences in fandoms of music, sport and youth culture.

The influence of the visual arts subject as a vocational subject at the government school and as a marker of distinction at the independent school was also evidenced in the entrepreneurial orientation of young people’s “unofficial” identities. Students from working class or unemployed parents’ homes could face serious financial constraints at home. A few of these teens were experimenting with entrepreneurial identities in creative industries as a potentially valuable source of economic capital. They foregrounded these emergent market-driven personas, which they had started developing well before the e-portfolio syllabus. By contrast, all independent school learners were involved in informal visual creativity as part of concerted cultivation. The most privileged amongst them broke from the visual cultural repertoires taught in the arts syllabus to experiment with skills in media production. For example, a few students used photography equipment and video editing software (see Table 1) typically used by professionals.

Achievements in personas, portfolio organisation and communication styles

As described in Chapter Three, this research project developed an original content analysis that identified specific patterns at each site in persona styles, portfolio organisation and for communication choices:

Patterns in disciplinary persona achievement

Independent school learners produced disciplinary personas that were strongly influenced by their educator’s emphasis on highbrow fine arts culture and regular e-portfolio assessments. Most students used their names and added lengthy self-descriptions in formal genres. This formality was tied to self-representations in which many used conventionally ‘painterly’ or ‘drawn’ portraits to present a classroom identity. Almost all participants at the government school portrayed themselves to be visual arts students, with many adding the required course description and personal reflection. Most of these students described their syllabus projects, which included privileged access to pastel drawing, oil painting and computer-based design education.

At the government school, the volunteers followed a variety of self-naming strategies and used short self-descriptions that mostly referenced informal, mobile genres. Their influence was also evident in teenagers’ self-presentation imagery, with a third of the students using selfies as profile images. The volunteers were not constrained by Mrs. Zahra’s assessment strategy and the e-portfolio syllabus they were taught was also less prescriptive regarding the style. At the government school, only half of the volunteers presented themselves to be visual arts students.

Patterns in unofficial personas

Most participants at the independent school featured emergent cultural capital that included sporting, popular music, video gaming and interests in socialising. Fewer students featured “unofficial” visual creative personas. These drew on privileged access to co-curricular arts societies and workshops. Some also used online affinity spaces to develop their artistic personas. Several students shared common fandoms in European and/or American popular culture, while none shared fandoms of (South) African popular music. A few “unofficial” visual creative producers shared other leisure roles, such as photographs and videos of water sports and school leadership activities.

Many of the government school volunteers included details of their “unofficial” visual creative personas, despite not having the privileges of visual arts or design clubs after-school. Such personas revealed youths’ informal development of diverse cultural repertoires. The volunteers extended the range of genres emphasized at their school through practices that included character- and fashion design, scrapbooking, calligraphy and animation. Most of these built on the hand-drawn skills that students trained in class, which did not demand costly infrastructure for practice. Only a few government school students added information about their leisure personas. A few students shared their involvement in fandom such as US and Japanese popular culture (especially fan art of hip-hop and R&B music celebrities and manga characters). Such fandom seemed more widely shared than fandom for European or African productions.

Portfolio organisation achievements

Most independent school students were able to finish e-portfolio showcases for their curricular artworks. These showcases featured costly medias and surfaces, which suggested the privileges that the young men enjoyed in Mr. Proudfoot’s well-resourced art studio. The incorporation of exclusive fine arts media and appropriation of highbrow artworks suggested these students’ privileged assimilation of highbrow fine arts culture. Many students also shared emerging cultural capital that marked privilege in thoroughly remediating exclusive media production spaces. Few government school volunteers produced portfolios that seemed well-organised or gave a comprehensive overview of their curricular or “unofficial” projects. Rather than reflecting a lack of interest, the somewhat disorganised and less modally-rich portfolios overall reflected the volunteers’ resourcing constraints at school and home.

To circumvent the storage and image file format limitations of Carbonmade, independent school students curated their “unofficial” productions using online publications, such as blogs and video portfolios. Such collections supported their authors’ expression of creative identities not advanced in their visual arts lessons. A few of these collections were linked from their e-portfolios. While a few government school students had also developed presences on social networks related to their “unofficial” visual creative projects, only one added a link from her e-portfolio to such a social platform.

Patterns in communication choices

Almost all government school students were keen to do freelance work and listed freemium private email addresses, while very few listed their home suburb. Very few protected their copyright with appropriately formatted legal footers. This reflected their inexperience with digital page design and inserting special symbols, such as copyright.

A few independent school students shared their own school email addresses and listed their affluent home suburbs. Several students protected their authorial rights using

copyright statements, whose format a few expanded to include their location. This change is an example of how students could gain symbolic advantages from elite email addresses and from leveraging the cultural capital of parents who worked in marketing and law.

Twelve case studies are detailed in the following chapters to better understand the relationships between students' digital personas and their varied circumstances. The cases explore a cross-section of youths' e-portfolio styles and contexts. Chapter Five describes five students' varied reproductions of the prescribed disciplinary identity. Chapter Six explores seven young people who highlighted informal visual creative and other personas. All cases present a fine-grained analysis that contextualised how young people's e-portfolio styles were achievements that drew on varied impression management strategies and leveraged specific opportunities to develop particular capabilities or rejected them. Students' digital personas drew on their contrasting involvements in varied social semiotic spaces that necessitated different types and volumes of capital.

Chapter 5: Five digital disciplined identities

Introduction

The content analysis in Chapter Four revealed very different achievements in students' e-portfolio styles at two schools. While e-portfolio lessons helped young people at both schools to develop their digital literacies, there were wide-ranging differences in teenagers' e-portfolio styles owing to them having very different opportunities. This chapter is an in-depth exploration of the contrasting digital disciplined identities that five students followed in foregrounding visual arts classroom personas as their preferred self-impression management strategy. As discussed in Chapter One, my research proposed the concept of digital disciplined identities to extend the strong shaping influence of the templated self into the identity templates that educational institutions provide to students. The education system already concerns itself with templating students as well as templating knowledge (Watters, 2014). Many education technologies loyally re-inscribe such templates into the digital world, relying on corporate infrastructures rather than private ones. In my research, student's e-portfolio styles could be strongly shaped by the creative appropriation of Carbonmade and the options for a templated self this software afforded. Young people's styles could also be strongly influenced by guidelines and assessment criteria for reproducing classroom personas as visual arts students.

Each case study highlights how and why these e-portfolio styles varied. In particular, differences in modal density were linked to inequalities in teenagers' internet access, their privacy concerns or disinterest in sharing this student identity. Young people's styles also differed in their affect for fine arts media and in negotiating "unofficial" roles in creative industry, fan art and crafts, together with other lifestyles.

The first case study introduces "George"³⁴, a student from the independent school, whose portfolio showcase served as a disciplinary touchstone in following an original gallery exhibition metaphor and foregrounding curricular artworks and inspiration. George did not express any privacy concerns in sharing his artworks on diverse sites.

By contrast, in the second case study, I discuss how a young woman from the government school, "Dina" confronted challenges with sharing her personas as this conflicted with wanting to protect her privacy from unwanted audiences. While George chose to hide his "unofficial" personas as an assessment strategy intended to improve his grades, Dina chose instead not to foreground hers. She feared that her involvement in manga, animé and gothic fandoms would be misinterpreted. She was concerned about the reaction of religiously conservative audiences, which are widespread in South Africa. Such audiences could stigmatise her fandoms as opening her up to occult and Satanic influences (Falkof, 2015).

The third case study introduces "Nathan" who had a strong disposition towards the visual arts, but his access to the internet and digital infrastructure was highly constrained. He could only edit his e-portfolio in the school computer lab and digitise his artworks in arts lessons. Missing identifiers and the low modal density of his digital

³⁴ Not his real name. All names which follow are pseudonyms, anonymised to protect participants' privacy.

personas reflected these constraints, rather than being a fair reflection of his interests and achievements.

A fourth case study profiles “Thembani”, a student at the independent school, who was heavily involved in sports and leadership. His e-portfolio foregrounded two personas, that of an artist with an interest in observational drawing and the other, a rugby player.

By contrast to the other student profiles, “Vikus” was not interested in e-portfolio curation and made very few choices.

Reproducing dominant identities at dissimilar institutional spaces and in e-portfolios

In South Africa, educators’ visual arts history and studio work syllabi are strongly shaped by the directives of the most powerful cultural institutions in their field; the National and Provincial Departments of Education (DOE). The DOE is responsible for providing visual arts history textbooks for government school educators to use in teaching, while other textbooks may be used in independent schools. Teachers enjoy some leeway in designing syllabi that accommodate the practical constraints and social concerns at their schools. However, syllabi must still be prepared in response to the national assessment criteria for the subject defined by the DOE. These span art history exam preparation requirements and practical exhibition standards. What constitutes cultural capital and how this capital is to be distributed within the visual arts field is assessed by a dominant administration that monitors and enforces educators compliance with national assessment guidelines (Department of Education, 2012). This hierarchical situation is mirrored in the classroom where the educator is dominant. Students as a dominated group (Bourdieu & Passeron, 1977:1990) have limited opportunities for influencing what they are taught.

Notwithstanding its reputation as a “creative” subject, the teaching of the visual arts and visual culture typically serves as a conservative space. While the state and independent school were very different, their visual arts educators had a shared focus on valorizing the assimilation of a particular type of highbrow artist identity as the “disciplined” visual creative one worth emulating. In their schools’ shared community of visual arts practice, teenagers were involved in a process of cultural reproduction, where they were taught an affinity for highbrow cultural capital through classroom and co-curricular projects. Most of the identities foregrounded relate to European and American Fine Arts culture. The (South) African artists who have been canonized principally work within the same elite culture.

A foundational principle of Bourdieusian sociology is that culture is not only the terrain of human interaction, but is an extraordinary system of power relations (Navarro, 2006). All symbolic systems are anchored in culture and thus determine our understanding of reality. In addition to ensuring communication and interaction, symbolic systems also create and conserve social hierarchies (Bourdieu, 1984). As culture mediates social practices by connecting people and groups to institutionalized hierarchies, it necessarily embodies power relations (Navarro, 2006). As a society becomes increasingly complex, culture and symbolic systems may become relatively autonomous arenas of struggle and difference vis-à-vis other fields. Bourdieu’s concept of distinction encapsulates how in certain concrete situations there can be immense value in perpetuating social differences and hierarchies.

As described in Chapter Two, artworks and the grades associated with observational drawing and painting are highly valued as an academic cultural capital. Students whose portfolios evidence sophisticated observational skills can use these to justify gaining access to the limited places available in prestigious fields, such as architecture. Evaluation standards for the school-leaving examination require that a fine arts portfolio is produced, which shows the development of hand-drawn, realist observational skills. Both my sites followed a common DOE arts syllabus, which emphasised the production of drawing, painting and collage artefacts for mid- and end-of-year exhibitions. Learners were also encouraged to experiment in other mediums; at the private school, students were exposed to printmaking, design and photography in co-curricular projects, while government school students could volunteer for extra sculpture classes. Such medias are contiguous with those taught in local universities as part of a fine arts degree's foundation year. At both sites, visual arts students learnt about the history and practices of Western fine arts masters in observational drawing and painting. This emphasis is tied to the dominant history of Eurocentric models, which provided the foundation for the professionalization of the fine arts through education, exhibitions, museums and degree training programs (McGee, 2007).

Decolonial activists in the arts field challenge those historical accounts (McGee, 2007) and visual artistic canons (Marschall, 2001) whose teaching privileges Western, Eurocentric epistemological models and their values. Despite this challenge, the DOE and its visual arts educators continue to reproduce the traditional Modern cultural hierarchy in this curricular construction of the 'visual arts'. *Cultural reproduction* occurs when a dominant culture is transmitted from generation to generation (Bourdieu, 1984. Jenks, 2002) and the process of schooling is a powerful mechanism for such reproduction (Bourdieu & Passeron, 1990). Schools support the processes by which aspects of culture are passed from person to person or assimilated from society to society.

The conservative role of visual arts education was strongly evidenced in how the e-portfolio was appropriated for teaching. As a form of digital communication, the e-portfolio could have been used to highlight related emerging forms of cultural capital (Savage et al. 2013), such as managing multiple identities as a digital artist. It could also have been used in teaching new literacies (Lankshear & Knobel, 2009), such as exploring participatory culture through remixing and sharing digital collages (Faucher, 2016). Instead, decision makers' educational focus on teaching the remediation of fine arts identities served as a new mechanism to sustain the dominant cultural experience in their classrooms. Teaching the digital curation of an English-speaking, fine artist's e-portfolio style arguably served as the cultural reproduction of a dominant, social identity. This approach amplified classroom personas and the consumption of fine art as legitimate lifestyles and cultural capital, rather than accommodating alternatives. Students were simply expected to claim this classroom identity (Bourdieu, 1990) and remediate curricular artefacts to justify it.

Educators' prescription of an affluent, English-speaking identity as the aspirational norm in e-portfolio pedagogy reflects a more general challenge in post-apartheid South Africa; the difficulties of acknowledging diversity and advancing an anti-colonial agenda through education. Cape Town students' integration into secondary schools has led to practices of assimilation by dominated groups in response to dominant ones (Soudien, 2004). The most common example is black African students needing to assimilate into schools previously reserved for Indians, 'Coloureds' and whites (Soudien, 1988). Such

schools are ill-prepared to deal with the social, cultural and economic backgrounds and differences that these new students introduce. A similar incapacity to deal with difference was evidenced by e-portfolio syllabi not catering for identity affiliations outside their school's norm. In particular, teenagers were not encouraged to reflect on expressing differences such as their race and ethnicity or socio-economic class. Furthermore, our e-portfolio syllabi did not accommodate students from poor households by teaching infrastructure substitutes to those readily accessible in well-off Cape Town homes.

Both schools were very different in terms of the formal resources students could draw on for curating disciplinary e-portfolio styles (see Chapter Four). The independent school was richly resourced and eventually used compulsory e-portfolio curation to support educational distinction. Mr. Proudfoot developed a strong assessment strategy that encouraged the prescribed academic identity's reproduction and students' self-curation for year-end exhibitions. By contrast, Mrs. Zahra did not formally assess her volunteers' e-portfolios and the primary aim of its voluntary pedagogy was to give a once-off, novel learning activity for teens eager to use online portfolio software. Participants at the two sites also had very different opportunities when accessing technological and material resources at home.

George - Exemplary academic cultural capital

A white student who stayed at home in the Southern Peninsula with his parents (rather than in the school hostel), George was unusual in the extent to which he remediated arguably the most 'disciplined' identity. His e-portfolio foregrounded his exemplary qualities as a visual arts student via its distinctive fine arts gallery metaphor (Figures 18 to 24), which exceeded Mr. Proudfoot's e-portfolio requirements. George's highly-organized digital curation and its detailed documentation of drawings and paintings mirrored the strong disposition he had developed towards the visual arts subject. Compared to his classmates, George was the most heavily engaged in fandom of fine art and was unusual amongst participants in that he extended this highbrow interest via social networks.

George was one of several students whose involvement in informal visual creative productions persuaded him to do visual arts in grade ten; he switched from accounting to visual art as a seventh subject. Students are commonly advised against making such late subject transitions, as their results typically are lower than their peers with a longer track record. Nonetheless George was highly successful in making this late subject transition: at school, he became a leader in the Accelerated Art program, and was also a member of the Digital Design society. Despite his late start, he won the visual arts subject prize in his final year at school.

At the independent school, all students must choose to do an arts subject in grades eight and nine. While many visual arts students continued with the subject until grade 9, some stopped and a few resumed in grade 10. Five students made similar late transitions to the visual arts subject in grade 10, one in grade 11. Like George, the successful transitions of "Kyle" and "Gary" (see Chapter Six) also evidenced the important role of supportive family environments in providing the requisite cultural capital and encouragement to successfully shift to formal study. According to Mr. Proudfoot, 'a supportive family environment is the single most important factor in helping interested and talented learners make progress' (Written case study feedback, 2017). Young people who come

from a social background where their parents have high levels of education and professional occupations tend to have greater access to the cultural capital legitimated through schooling (Bourdieu, 1984). Such teenagers find this capital easier to acquire since they are pre-disposed at home to understand its value and orientate themselves towards its accrual. Such bridging capital would be unusually important for the visual arts field as it is the most exclusive in the areas of cultural practice, more so than media, music or sports (Bennett, et al. 2009).

In George's case, both of his parents worked in advertising. They provided support for his engagements with highbrow art, for example through supporting his participation in arts societies and taking him on art gallery trips. This support is typical of cultivated parenting styles (Kracman, 1996. Aschaffenburg & Maas, 1997) in middle class families. From a very young age, children in culturally favourable familial environments learn cultural codes, styles and ways of speech and behaviour that facilitate their successful integration into social institutions (Lareau & Weininger, 2003), such as an art educator's studio. Further, children initiated into high culture (and its institutions) early on by privileged families develop a stronger need for cultural participation (Hanquinet, forthcoming).

An exemplary student³⁵, George loved expressing himself creatively, rather than to 'just learn' (George, online portfolio questionnaire, 2010). He had practiced drawing every day since childhood, encouraged by his parents. As a 'big fan of abstract, modern and conceptual art' (George, 'About' page, 2012), he was privileged to have been taken to visit both local and overseas galleries. He had developed proficiency in painting from grade eight after joining the 'accelerated art programme'³⁶.

Adolescents tend to have an affinity for popular culture with younger cohorts being less likely to enjoy high culture (Peterson, 2005. Peterson & Rossman, 2007. Rossman & Peterson, 2015). George was highly unusual amongst his classmates for his enthusiastic assimilation of fine arts tastes. Fans are unusual in that they maintain the social and cultural systems of classification and thus existing hierarchies (Gray, Sandvoss & Harrington, 2007). In George's case, at home he pursued fine arts fandom and researched other visual domains that linked well to the visual arts subject. Such initiative was similar to French secondary school students from highly-educated homes, who evidenced distinctive music consumption by asking for advice and finding good pieces themselves (Legon, 2010). George described the internet as a valuable resource to search other visual creatives' portfolios and learn from their work. He also explored graphic design and photography. He followed Facebook fan pages and used Twitter to keep up with visually creative personalities, websites and specialist blogs (email from George, 5.11.2013). George interacted with online portfolios by rating artworks he liked and adding positive comments about them. He further described entering online art competitions.

Over the course of the project, George grew to appreciate his e-portfolio as a reflection of his abilities. It also served as a source of the high grades he needed to maintain for

³⁵ George was an academic achiever, who described his proudest school achievement in his 2010 'Online portfolio questionnaire' feedback as; '... receiving my academic jersey in grade 9. To receive this, I had to get an average over 90% for three exam terms in a row. I was the third person at (his school name) to ever do this.'

³⁶ The Accelerated Art programme was an extra-mural activity offered by his school, this club meets each Friday during term between 14H30 to 17H00. It offered students lessons in printmaking, painting and other Fine Arts disciplines.

keeping his desired vocational trajectory; he had been offered a place to study Medicine at a local university.



Figure 18. Screenshot of homepage by "George", 2010³⁷

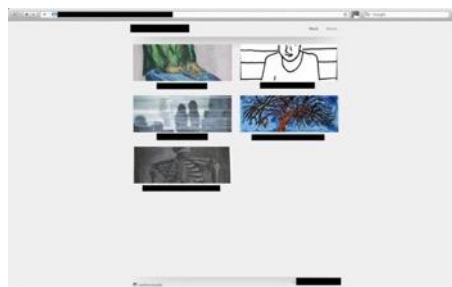


Figure 19. Screenshot of homepage by "George", 2012



Figure 20. Screenshot of "folder 1" page by "George", 2012



Figure 21. Screenshot of "folder 2" page by "George", 2012



Figure 22. Screenshot of "folder 3" page by "George", 2012



Figure 23. Screenshot of "folder 4" page by "George", 2012. The outlines in this self-portrait have been traced to hide George's appearance.



Figure 24. Screenshot of the top section of the 'About' page by "George", 2012

Apart from his instrumental approach to maximizing grades, George was also motivated by interactions with online audiences. He had a strong sense of an appreciative audience and received feedback from his parents and classmates concerning his e-portfolio. Its lessons inspired George to think of publishing, 'all kinds of things' he did for feedback from online audiences (online portfolio questionnaire, 2010).

³⁷ A small size and reduced resolution has been used for the imagery of each students' webpages. These measures were taken to minimize the dangers of these pages' original web addresses being identified during a reverse image search (Noakes, 2016).

George could readily use a camera phone, laptop, scanner or the internet at home. Yet he described not being as well-resourced as classmates from richer backgrounds, who had their own tablets and ‘professional cameras’ (Interview with George, 7 November, 2012). While George had access to sufficient infrastructure for e-portfolio curation, he described experiencing minor constraints with his school’s erratic, slow and unreliable broadband access, which made using Carbonmade difficult.

Taking full advantage of his internet access at home, George developed several online portfolios. These supported his exploration of identity construction, an important aspect of self-presentation (Zhao, Grasmuck & Martin, 2008). With strong interests in photography, design and architecture, George came to use many personal online accounts (Facebook, Instagram, Flickr, Twitter and YouTube). He chafed at the constraint, which limited him to 35 images on the free version of Carbonmade. The school’s bandwidth management software blocked sites, especially Flickr, whose images George would have liked to use. In response, he decided to update his e-portfolio at home where he could upload files quickly, then use class time more efficiently to work on other projects.

George created separate Flickr and Instagram portfolios to publish his photography, which he shared via his Facebook and Twitter accounts. These provided inspiration, opportunities to practice constructive feedback and for developing multiple audiences of his “unofficial” creative productions. By surfacing varied visual creative personas online, George was effectively experimenting with an identity as a *multi-platform* artist. Contemporary, young creatives typically construct a multiplicity of artistic identities. Multi-platform artists diversify the medias they are involved with rather than specializing in one chosen medium, with versatility and diversification being the aim of such creative entrepreneurs (Deresiewicz, 2015). George enjoyed sharing the imagery he produced in varied visual creative domains with a broad audience, because he appreciated the positive attention from people who had commented on the other sites where he uploaded his work (Interview with George, 7 November, 2012).

George’s profile described travelling around France, London and Holland, where he saw ‘astounding artworks’ (George, ‘About’ page, 2012). At the independent school, all visual arts students are encouraged to view and participate in school exhibitions. In grade 11, Mr. Proudfoot asked George’s class to attend the previous Matric year’s visual arts exhibition in preparation for their first term-exhibition and the school’s Eisteddfod. George’s enthusiasm for arts galleries strongly informed his e-portfolio design, which followed an art gallery metaphor that was distinctive from his peers. This style was very similar to that which fifth-year Swedish university students made in designing portfolios to position themselves as institutional artists and to frame their remediated artworks in a ‘superior art gallery’ (Hansson, 2010). This mitigated against the problem that what an artist presented outside an established institution, such as in a digital portfolio, is not seen as art (Becker 1984, Alexander 2003). George’s e-portfolio simulated the experience of viewing a crisp, white gallery, whose design was simple and elegant. Its white background was intended not to distract attention from the artworks themselves. Such a framing placed himself as an institutional artist within the simulated gallery space of the art world.

George chose a thumbnail navigation style (Figures 20 to 23) to achieve ‘the gallery sort of feel... you see a picture in the distance and then walk to that one.’ (Interview with George, 7 November, 2012). This unusual customization reflected his consideration of

how thumbnail navigation was useful for making the potential reading paths (Kress, 2003) in the e-portfolio resemble the experience of walking around a physical art gallery. This contrasted to the other two navigation style options, which did not provide previews.

He was also fastidious in his captions for portfolio items. Even those created out of school, followed the formal guidelines (Figures 20 to 23). For example, 'Walk Through The Woods, August 2011. Completed as part of a painting course oil paints on board 480mm * 440 mm.'. Its language echoed the understated address of artwork labels in an upmarket gallery. This style presents salient details about the origins of exhibited works to its audience (commonly the artist's name, object title, and media/support/technique, as well as the date and a price).

Mr. Proudfoot had included students' e-portfolio addresses in their bi-annual reports and in related emails to parents. He also informed students that he would use their e-portfolios as an introduction tool for the DOE's oversight of pupils' work prior to exhibition reviews. Oversight was done by the DOE's curricular advisers and arts teachers from other schools. In the independent school students' matric exhibitions, each also included a print out of their e-portfolio's web address in their exhibition area. George was unsure that external examiners' viewing of this link would, 'add or detract' from his final exhibition. As a multi-platform artist, George could have chosen to share a panoply of creative roles and media repertoires in his e-portfolio style. However, he concealed such differentiated practices as part of a strategy of audience segregation (Goffman, 1959) to present his observational drawing and painting mastery to potential markers. By avoiding adding personas that were not legitimated through studio practice, George prevented his audience being distracted from his disciplinary accomplishments. He mostly hid his graphic design and photographic productions.

George's heavily curated disciplinary personas therefore addressed the danger that the collapsed context of the digital e-portfolio could pose in his assessment by educationalists. In everyday life, people can use the different spaces to perform distinct aspects of their identity (for example, a student identity at school and a recreational sports identity on the weekend) to particular clusters. However, in using online services these different contexts and associated clusters may converge into a collapsed context (boyd & Heer, 2006). As a result, in the digital environment, the multiple disconnected audiences that would be unlikely to see one's identity performances in separate geographic spaces can now use a common online context (such as Facebook) to see both work and leisure performances.

George's ongoing impression management (Goffman, 1959) updated his e-portfolio just before the matric exhibition. He foregrounded his drawing and painterly roles to ensure that the short time that examiners had to review each student's traditional portfolio, sketchbooks and e-portfolio would focus on his classroom personas. He used his e-portfolio's limited storage space to foreground the 'visual arts stuff' (Interview with George, 7 November, 2012). Although he listed 'photography' as a specialty and 'black and white' and 'Nature Photography' and 'Photoshop' as areas of his expertise, George did not include such imagery. While he had created a DeviantArt portfolio and ones for photography on the Flickr and Instagram social networks, he did not link to these either. He listed 'Design' as his specialty, but his e-portfolio did not share any, rather 15 drawings and six paintings. The two inspirational artworks (Van Gogh's 'Almond

Blossom' painting and William Kentridge's 'Stereoscope' (1999) charcoal and pastel drawing) that he included were both curricular.

George uniquely went above and beyond the expectations set by Mr. Proudfoot's e-portfolio syllabus. George's e-portfolio contrasted to those of his classmates in the knowing way it used repertoires best-suited to an audience of examiners. His case exemplified the ongoing strength of legitimate cultural capital and the importance of 'reflexive appropriation' (Bennet, et al. 2009), or a 'knowing mode of appropriation' (Priour & Savage, 2013) for achieving social distinction. Both refer to processes of appropriation, whereby social distinction can be marked by the particular ways items are appropriated and knowing the appropriate types of repertoires to use in particular contexts (Roose, 2015). George combined his agenda as an *academic achiever* (Ghail, 1994) with his passion for consecrated visual culture to construct a traditional visual arts student identity tailored for matric exhibition invigilators. The gallery style he chose also resonated with that of many fifth-year Stockholm university arts students (Hansson, 2010), who were seeking to establish artistic identities in the contemporary art field (Hansson, 2015). George's exemplary e-portfolio was upheld as a touchstone on the WCED Visual Arts department's curriculum website.

The next case study describes Dina, another enthusiastic academic achiever. Dina was different to George in that she followed an impression management strategy that alluded to her manga, animé and gothic fandoms. As a young black woman, she experienced the aggression as well as the potential of online environments. In response, she made choices to protect her privacy, which included restricting her involvement with social networks.

Dina - Managing the risks of online identity and fan art

Dina's family lived in the township of Bonteheuwel, where she was very fortunate to have the material and technological resources she needed to create a showcase e-portfolio and participate in various fandoms. Her overall social media profile was informed by a circumspect relationship to online visibility and her experience of its dangers. She differed from George in choosing not to create any other portfolios or to participate in social networks. She was cautious in the extent of identity information and productions she shared via her e-portfolio. While foregrounding her curricular projects (see Figures 25 to 28), Dina tried to conceal her private identity and did not foreground her involvement in fandoms to avoid spoiling her identity with religiously conservative audiences.

The cultural constraints that Dina faced in articulating her digital personas were multidimensional in being linked to her race, gender and religion. This reflected intersectionality (Crenshaw, 1989), the notion that subjectivity is constituted by mutually reinforcing vectors that include race, ethnicity, gender, sexuality and class (Nash, 2008). Such factors can intersect to result in multiple marginalizations (such as the voices of African American feminist women being silenced by patriarchy and those white feminists who exercise racial normativity) or compound privileges (white, male American lawyers whose views are supported by a patriarchal society with white norms) (Matsuda, 1987). The obstacles that Dina faced also pointed to how strong constraints may come to shape individual agents' strategies online (Tufekci, 2017). For example, while social networks have been used by journalists to highlight human rights abuses in the Middle East, its authoritarian regimes have responded by censoring such networks and using "private" information to target dissenters.

Dina produced her e-portfolio with specific vocational and disciplinary aims in mind. She initially viewed it as a reference 'site' to help her secure vocational work in Cape Town's film industry (Interview with Dina, 5 April 2013). The only other audience she desired for her e-portfolio were students and teachers. Unusually amongst her classmates, Dina had added folder- and client descriptions to e-portfolio artwork folders. She hoped such descriptions would prove useful in providing searchable resources for students from other schools (Interview with Dina, 5 April 2013).

Just over four percent of the homes in Bonteheuwel support internet access (Statistics South Africa, 2012), so Dina was relatively fortunate as a Bonteheuwel resident to have internet access in hers. She used it to research artistic interests and found inspiration in what artists' portfolios revealed to be possible (Interview with Dina, 5 April 2013). By contrast to George's "unofficial" interest in photography and graphic design, Dina was interested in manga, animé and gothic fan art³⁸. She did not create any new online portfolios related to such "unofficial" interests for practical and strategic reasons: Dina struggled to remember her password just for Carbonmade and would be 'unable to manage' many online portfolios. She also believed that having one portfolio to direct people to was more helpful than confusing them by providing links to '25 portfolios' (Interview with Dina, 5 April 2013).

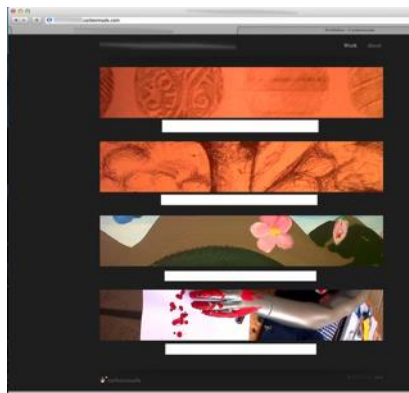


Figure 25. Screenshot of homepage by "Dina", 2013



Figure 26. Screenshot of "folder 4" page by "Dina", 2013



Figure 27. Screenshot of a "folder 3" page by "Dina", 2013

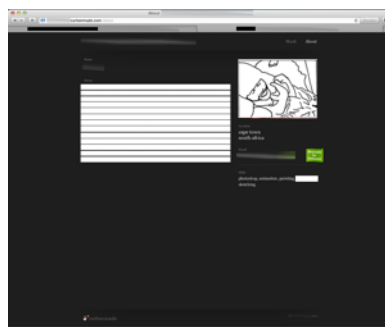


Figure 28. Screenshot of 'About' page by "Dina", 2013

Dina's e-portfolio largely foregrounded her enthusiastic, visual arts student personas. Her impression management strategy was strongly shaped by an avoidance strategy,

³⁸ Fan art is a catch all term (Manifold, 2009) used for any two- or three dimensional productions that copy, appropriate from or illustrate media-produced narratives and characters (Jenkins, 1992). Forms of fan art can range from exact character copies to original illustrations based on printed narratives or cinematic ones, using the likeness of their actors (Jenkins, 2006).

similar to adults that seek to distance themselves from online risks (Raman & Pashupati, 2005). Dina concealed her contact details and other personal information, thereby minimising the challenges of being involved in networked publics (boyd, 2014), the online privacy threats commonly experienced by youth (Schrock & boyd, 2008, 2011) and linked concerns in online social networking (boyd & Ellison, 2008). These include identity theft and the strong pattern of cyber-bullying amongst South African youths on Facebook (Rachoeane & Oyedemi, 2015).

Although individuals often express concern and awareness about online privacy, many still engage in risky online activities (Campbell et al. 2001), such as providing private contact information or readily sharing self-imagery with unknown audiences. Given people's generally relaxed attitude to online privacy, it may take unfortunate incidents, such as being a victim of identity theft or stalking, to shock Facebook users into being more selective about the information they make available online (Govani & Pashley, 2005). Such considerations reflect the calculated risks that young people are making online in a digital environment where the onus for choice-making and responsibility is placed on each individual user (Livingstone & Sefton-Greene, 2016, 2017).

Before the e-portfolio workshops, Dina had already created an album of images on Facebook to share her creative productions. She chose to close her account after experiencing malicious impersonation by another girl, 'She has the same name as me, also. She has dated so many guys under my name. (She) Stole my pictures from Facebook.' (Interview with Dina, 5 April 2013). Dina's negative experience taught her to be, 'a hundred per cent sure' who she trusted with her information (Interview with Dina, 5 April 2013). Dina limited her online visibility by not participating in social networks. She also aimed to provide general details about herself in her self-description on Carbonmade.

Without a feature to restrict viewership of her information to known audiences, Dina could only hide her information by not publishing it. Each online service can be conceptualised as a context with its own specific set of privacy norms (Marwick, Diaz & Palfrey, 2010). While Facebook allows users to manage which parts of their profiles are accessible, the Carbonmade service assumes portfolio creators want all viewers to see their information. It does not support portfolio creators restricting their viewership to private networks (i.e. only accessible to a person's articulated list of Facebook friends) (boyd & Ellison, 2007). Studies with US teens found that even younger users are conscious enough of privacy issues on Facebook to use such features (Hargittai, 2010). Without such features, Dina described featuring general, rather than specific, interests in her profile. For example, 'I like doodling' (Interview with Dina, 5 April 2013). Instead of using her full real name, an online pseudonym (Martin, 2013) or an obfuscating nickname (Tufekci, 2008), Dina used just her first name on her profile page.

Dina's cautious approach and concealment strategy was shared with the other female participants, mirroring young women feeling more vulnerable to privacy risks than teenage boys. Such perception results in girls curtailing their online activities more than boys (Youn & Hall, 2008). Boys are more likely to disclose personal information, take risks and avoid privacy protective behaviours (Fogel & Nehmad, 2009). School norms typically assume the personal safety of students, who are expected to use their real names. Regardless of how safe their school environment might be, young women are at greater risk of harassment when presenting their identities online. Only one of the female participants used her full name. The rest matched a popular stratagem amongst

American teenagers with profiles on social network sites; only eleven percent surveyed use their full names (Lenhardt, Madden, Rankin McGill & Smith, 2007). By partially concealing their personal details, female students sought to prevent the danger of their information flowing into other contexts.

Dina's strategy in hiding her real name was only partially successful. She used her real name in a copyright statement, matching this guideline in the e-portfolio syllabus. This meant her legal identity was disclosed and undesirable audiences, like online stalkers, could readily identify it. While Carbonmade discretely positioned copyright statements as footers, these were foregrounded as highly salient information in Google search engine results for Carbonmade portfolios (see Figure 29's anonymised result for Dina's e-portfolio).



Figure 29. Anonymised screen grab of Google search result for Dina, 2017.

In addition to a concealment strategy that protected her privacy, Dina also foregrounded her classroom personas for school or professional audiences. She chose to share her curricular productions rather than the gothic and animé fan art she made. Her e-portfolio folder titles mimicked the visual arts syllabus' themes and contained mostly curricular productions. The few examples of "unofficial" fan art she shared marked the initial stage of a fan artist's involvement in being hand-drawn copies of characters (Manifold, 2015); Dina shared her portraits of heroes in the Pirates of the Caribbean franchise, as well as animé monster portraits.

Such fan art is usually excluded in the visual arts syllabus, where the traditional cultural hierarchy of fine arts mastery is valorised as meritorious. The syllabus celebrated traditional arts studio practices and genres (such as landscape painting) as legitimate, while ignoring recent visual culture hierarchies (such as fan art of popular narrative genres³⁹). The syllabus provided few opportunities to discuss the multiplication of cultural hierarchies in contemporary visual culture and the accompanying values of leisure, entertainment, fun and play (Featherstone, 2007). Nor did the syllabus explicitly address the mobility of cultural forms and the destabilization of high culture's hegemony in post-modern societies.

The exclusion of fan art from the visual arts syllabus suggested this genre's de-legitimation as academic cultural capital. Nevertheless, fan art can have high cultural currency in other contexts. In contemporary culture, the emergence of highly skilled fan artists is an example of a new cultural hierarchy. The best fan artists attain a 'WOW' factor in their work that elevates it from a visual terrain of ordinary sameness (Jenkins, 2006). Many fan art novices respect creative professionals' techniques and strive to emulate them (Manifold, 2012).

Fandom can be important for individuals in providing an arena to explore aspects of identity and opportunities to study aesthetics they closely relate to. Dina described being a fan of in vampire fiction (like the Vampire Diaries television series and Twilight film

³⁹ Popular narrative forms include text and graphic novels, comics, manga, animé and animations, cinematic films, music videos and television series (Manifold, 2012).

trilogy) and drawing copies of the Shōnen⁴⁰ manga genre's Beach (PG13+) and Death Note (R-17) animation series' imagery. Young people use fandoms⁴¹ to create individual and collective identities. These are used for solving problems that the development of a mainstream, middle-class identity may not support (Wilkins, 2008). In Dina's case, her fandoms provided her with creative inspiration for her emotional disclosure of dark feelings (online portfolio and out-of-class portfolio questionnaire feedback, 2012). Animé genres and gothic sub-cultures have extensive internet communities and online resources. Dina's online engagement with these sub-cultures provided her with opportunities to explore taboo topics, which religious communities often object to. These topics include the occult and evil spirits, violence and mind manipulation, erotica and sexual experimentation. Dina used macabre inspiration for expressing emotional otherness while exploring sub-matter related to pain and sadness. This set her apart from the positivistic expression of 'fetishized happiness' assumed to be appropriate in a religiously conservative society. The majority of South Africans consider themselves to be religious (Gilani, Shahid & Zuetzel, 2012) and many are Christian (Statistics South Africa, 2001, 2012).

In addition to contending with concerns around imperatives for participation in social media, young people also fret about the values, risks and consequences of being visible online (Berriman & Thomson, 2015, p. 583). Teenagers' social media use is a highly moralised terrain, bringing with it the potential to spoil identities and relations. The term 'moral' in relation to social media terrain refers to the ways in which public visibility marks the elaboration of normative codes regarding acceptable and unacceptable conduct.

Dina practised selective concealment regarding the 'demented' fan artworks she made. She was concerned that people 'can be very stereotyped' and that her classmates or teacher would react badly to macabre artwork (Interview with Dina, 5 April 2013). Social media can be a key place in which moral personhood is contested (Berriman & Thomson, 2015, p. 585). For Dina, sharing interests in macabre subject-matter was undesirable in potentially leading her to be judged as immoral. She worried that her e-portfolio audiences might think, 'this chick is like gothic, or she is Satanic'. She exercised impression management by hiding imagery whose meaning might be misinterpreted by a religiously conservative viewer, such as Mrs. Zahra or some classmates. Dina also did not want to have to 'explain everything' about her "unofficial" artworks to outsiders, as she would need to spend a long time providing the context to outsiders for the animé and gothic imagery she produced (out-of-class portfolio questionnaire feedback, 2012), such as sketched pictures of the animation series 'Bleach' and 'Death Note'.

Positioned at the top of her e-portfolio's homepage was a folder to which she published five drawings related to research for a texture and pattern-making project (Interview with Dina, 5 April 2013). Below this was a folder for sketches in which she shared sixteen images featuring both conventionally 'painterly' or 'drawn' and "unofficial" sketches. The

⁴⁰ By contrast to the romanticised style of Shōjo manga aimed at women and girls, the stories and images of Shōnen manga are aimed at audiences of boys and men.

⁴¹ My research situated teenagers' fandom practices as part of their lifestyles rather than situating them under *youth culture*. It describes distinctive cultural processes that are formed by young people (Wulff & Amit-Talai, 1995), structured by age and sex roles (Parsons, 1942) and separate from adult society (Coleman, 1961). Adults may play important roles through funding, marketing and being fan artist role-models in the fandoms that my research participants mentioned. It would therefore be inappropriate to frame these scenes as limited to the youth. Rather, I follow Miles' example (2000) in focusing on youths' varied lifestyles, which linked well with a Bourdieusian approach (Reimer, 1995).

latter spanned subject matter that ranged from popular culture, such as lead characters from the ‘Pirates of the Caribbean’ movies, to examples of her animé illustrations (out-of-class portfolio questionnaire feedback, 2012). The folder underneath it featured three paintings from curricular projects in 2011 (see Figure 27).

Although there was limited scope for Dina to include her fan art interests in curricular projects, she did take advantage of an installation project with the theme of ‘Underworld Creatures’ to reveal them. She chose the title ‘gothic Jesus’ to describe her mannequin’s transformation. The eleven images under her installation project folder showed her modifications to a silver, male mannequin (see Figure 26). Her re-figuration of Jesus was strongly influenced by a Goth aesthetic, in which a shocking beauty can be found in dark, macabre subject-matter: by contrast to his lightly-coloured robes, her mannequin wore a black, blood-flecked one. His risen body did not evidence crucifixion scars, but many amputations; his eye-sockets were holes, he had no lips to cover his large, fang-like teeth and he was missing a right arm. His left hand was bloodied and bandaged between the index and middle fingers. There was also a bloody hole in his head, which bled down the side of his head and neck.

Dina exercised impression management by presenting an uncontroversial visual art student identity to the gaze of conservative home, school and vocational audiences. Instead of presenting personas as a Goth or enthusiast of Japanese popular culture under ‘About Me’ (see Figure 28), she described enjoying the visual arts subject as a safe environment to express her feelings in her favoured medias, oil and craft paint. This made her feel ‘all Gucci’, her colloquial tribute to a luxury brand that is perhaps somewhat at odds with the anti-consumerist, pro-creative gothic ethos. Her selfie image was also antithetical to the gothic aesthetic by featuring; her smiling and wearing a formal, white dress, in a conventionally gendered, girly pink bedroom. Not portraying a gothic persona may also reflect the difficulties that Dina would face in identifying as a Cape Town Goth: The majority of Goths are white, young adults from upper-middle-class backgrounds, who have left home (Wilkins, 2008).

As a teenager with conservative religious parents growing up in a township, Dina did not share the economic and social privileges that many Goths typically enjoy. Her case did not evidence the requisite economic- and social capitals that would be necessary to access the Goth scene in central Cape Town and to support an “authentic” gothic identity’s development. Nevertheless, by sharing her gothic fandom, Dina was able to mark a relatively privileged position in her suburban and school contexts. Most teenagers in Bonteheuwel and near the government school’s Athlone suburb could not access either, since they did not have internet access (Statistics South Africa, 2012). Dina also benefited from a cousin’s help who had briefly studied animation and introduced her to Photoshop (Interview with Dina, 5 April 2013). Dina’s profile highlighted her extra-mural development of Photoshop skills. She listed ‘*Photoshop*’ and ‘*animation*’ skills before those learnt in class; ‘*painting, abstract art, sketching*’. In the context of the government school, it is possible that these skills were a source of class distinction, while they were somewhat unremarkable at the independent school.

By matric, Dina’s interest in working in the film industry had waned. While she was unable to study to become a lawyer as she had hoped in matric (Interview with Dina, 5 April 2013), she did go straight to work as a secretary in a local secondary school. (Interview with Mrs. Zahra, 17 March 2017). This job afforded her the opportunity to improve her financial position and supported her independence from home. Such a

trajectory placed her in a much better position than many young women in Bonteheuwel, forty eight percent of whom were unemployed (Statistics South Africa, 2012). However, being employed as a secretary would offer a very limited opportunity for the active expression she had enjoyed as a visual arts student and fan

George and Dina could readily participate in the e-portfolio as an élite genre that required costly technological and material resourcing. By contrast, the next case study introduced Nathan, a government school student whose (under-)resourcing proved a serious obstacle to his achievement of a digital hexis via e-portfolio curation. Although highly motivated, Nathan was from a poor household that could not support his involvement in an élite genre's production. He was limited to developing an e-portfolio in lessons and it did not truly reflect his abilities.

Nathan – A heavily constrained digital hexis and e-portfolio dissatisfaction

Nathan lived in an underprivileged home in the Crawford township. He volunteered to do e-portfolio production as he hoped to use his for applying to study graphic or interior design and in seeking internships. Nathan was one of a few volunteers that were under-resourced at home. He lacked the infrastructure required to produce any artworks outside visual arts class. At home, he had no equipment to produce art, not enough space, seldom time and no internet access (online portfolio questionnaire, 2012). Nathan was in a relatively poor household for Ward 60 (which contains the suburbs of Sybrand park, Crawford, Belthorn Estate and Lansdowne). Only fifteen percent of households in Ward 60 did not support internet access (Statistics South Africa, 2012).

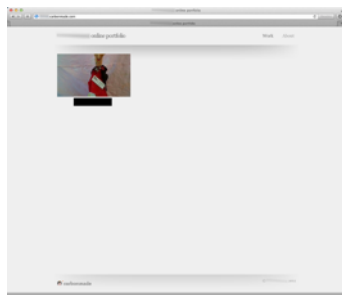


Figure 30. Screenshot of homepage by "Nathan", 2013

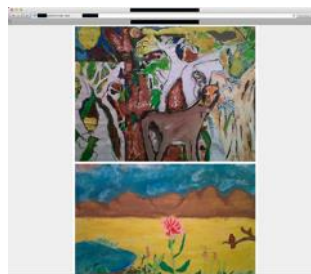


Figure 31. Screenshot of 'folder 1' page by "Nathan", 2013



Figure 32. Screenshot of 'About' page by "Nathan", 2013

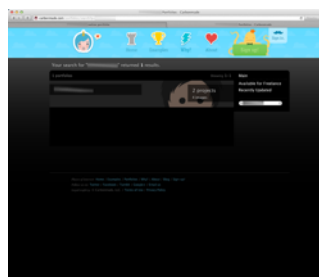


Figure 33. Screenshot of search result for "Nathan"s portfolio, 2013

In comparison to his better-resourced classmates, Nathan was triply disadvantaged. Most volunteers could produce art at home and use mobile phones to work around slow computer lab internet speeds in class or curate e-portfolios at home. Nathan could not 'go online' outside the computer lab, so was not 'on Facebook or other online portfolios'

(Online portfolio questionnaire feedback, 2010). Unlike his well-connected peers, he was also not in a position to explore roles related to “unofficial” visual creativity outside visual arts studio lessons.

Nathan’s e-portfolio’s style (see Figures 30 to 32) was also strongly linked to a task-orientation that was driven by necessity. Unlike George and Dina, Nathan foregrounded his visual arts student roles through necessity, not choice. Poor youth lack the free time that emerges from access to accumulated economic resources (Bourdieu, 1994) and therefore have to appraise the opportunity costs of their leisure activities, such online access (North, Snyder & Bulfin, 2008). In rationing their time and energy, under-resourced students are likely to avoid unstructured online activities and avoid what they perceive as ‘time-wasting’ diversions. Efficiency is their primary goal and they develop a task-orientated (digital) information habitus that frames appropriate internet use as waste avoidance. Such a habitus stems from their experiences of deprivation and urgency (Robinson, 2009).

Like Dina, Nathan valued his privacy and was not keen to provide communication information to unknown audiences. He did not use the ‘available for freelance’ button, as he did not want to be ‘more out there... in the public’ (Interview with Nathan, 5 April 2013).

Nathan’s limited time to work on his e-portfolio curation in lessons resulted in him making fewer choices than most of his classmates. Consequently, his e-portfolio had a lower modal density than theirs did, while also featuring several *missing identifiers* that were likely to reduce the e-portfolio’s value for Nathan’s intended purposes. The absence of expected signs in an e-portfolio are missing identifiers, which reduce its value when viewers interpret a prospective apprentice or student’s portfolio to be incomplete and not a ‘proper showcase’. The prestige of the symbolic capital that students may develop via digital curations is linked both to the quality of the artworks they remediate and their organisation. Where students choose to be online, but produce partial, disorganized portfolios that do not reflect their best works, such curations may be judged to be inadequate and discredited by assessors or prospective employers.

Nathan’s homepage featured an artwork folder that contained four images. These curricular artworks were; two paintings, a drawing and a mixed-media sculpture. His small portfolio seemed disorganised: its image order was not chosen and both the homepage’s thumbnail and folders’ scrolling layout were the default ones. Nathan also did not add labels to the artworks, nor did he use a picture to represent himself (see Figure 32) as he did ‘not have one to upload’. The infrastructural inequalities he faced were also hidden and not mentioned in his profile.

As a student who had no internet connection outside the computer lab, Nathan had to appraise the opportunity cost of his online activities very highly during lessons. His e-portfolio reflected a focus on achieving those classroom tasks that addressed the e-portfolio curriculum. Nathan’s digital information habitus enacted a ‘*taste for the necessary*’ that Bourdieu (1984) attributed to people socialised in conditions of scarcity and want. Determined to stay on task, he avoided the exploratory forays of that his affluent peers embarked upon. Nathan listed his specialities to be ‘painting and drawing’, and his skills as ‘drawing and technical work’. He defined the latter to be ‘detailed drawing’ such as complex shading (Interview with Nathan, 5 April 2013). His self-

description focussed on his love and passion for the arts. He listed a South African artist, (Peter) Clarke as an inspiration (Nathan, 'About' page, 2013).

Although he had several fandom interests, such as movies (*Bad Boys*), games (*Need 4 Speed*), animation (*Dragon Ball*) and rap music (*Drake*) (out of class questionnaire, 2012), Nathan's e-portfolio simply disclosed his enjoyment of football and eating. The "unofficial" roles he described were being a 'soccer player' and 'Manchester United fan'⁴², as well as a keen consumer of a local chow, the 'gatsbey'⁴³.

Nathan described his enjoyment of exploring "unofficial" visual creative personas via Carbonmade's search option. He believed that this was an important benefit of the e-portfolio syllabus as it provided him with the rare opportunity to see visual creative personas and medias that his school did not support, 'we can only work with the stuff that we have, like pencil, paint, water-based paints' (Interview with Nathan, 5 April 2013). He contrasted such formal medias to the more exclusive ones that Carbonmade portfolios typically featured.

While Nathan was highly motivated to produce an e-portfolio in support of his social trajectory, he had limited effective power to achieve a curricular showcase due to his resourcing constraints. At the end of this project, he was unusual in expressing dissatisfaction with his e-portfolio. He did 'not really' believe it would support him with his future objectives (Interview with Nathan, 5 April 2013). He believed it only 'kind of' expressed his disciplinary identity, since he could not upload the range of artworks that he had originally wanted to include.

The next case study, features Thembani. He was also unusual in expressing some dissatisfaction with his e-portfolio style. While his impression strategy reproduced two dominant cultural and sporting preferences at his independent school, he expressed concern that his style lacked the range of visual creativity that some of his classmates shared. Thembani was not deeply engaged with "unofficial" visual creative personas, but was heavily involved in leadership, sports and other school activities. His e-portfolio style reflected the sporting and observational drawing identities that were strongly valued at his school.

Thembani – Valued sporty and observational drawing personas

Thembani won a sports scholarship that earned him a place at one of the independent school's boarding houses (Online portfolio questionnaire feedback, 2010). Multilingual, with isiXhosa as his home language, Thembani was heavily involved in leadership activities (ranging from those in his boarding house to attending an international leadership summit in the United States of America). His self-presentation style foregrounded two cultural and sporting preferences that were dominant at his school. He echoed Mr. Proudfoot's emphasis on developing an observational draughtsman persona. Thembani also presented himself as a talented rugby-player, a rugby fan artist and athlete.

⁴² This side is one of the most popular English football clubs in Southern Africa. South Africa was the first African country to have an official Manchester United Supporters Club. Manchester United also signed one of South Africa's biggest stars, Quinton Fortune, who played for the Red Devils for seven years.

⁴³ A gatsbey is traditionally a french loaf that is halved and filled with meat and variables ranging from egg to fried calamari (Davis, 2013). The meal originated in the Cape Flats and is popular in the Western Cape.

Boys-only schools that support the costly infrastructures required for the national team sports of rugby, cricket and/or football can earn widespread recognition for sporting excellence, particularly if their first teams are successful. The sporting prowess that Them bani embodied as a talented rugby player and athlete served him as a form of culturally exalted physical capital (Shilling, 1991) associated with hyper masculinity. Such capital and his promising leadership abilities earned him a sought-after place at his school. In local schools, sports are considered important for developing personal character and teamwork skills. Rugby or hockey participation was mandatory during winter at the independent school, where rugby has an exalted history. Sports performances earned institutional symbolic capital⁴⁴ for young sportsmen at the school. These awards ranged from colors for particular sports disciplines to student leadership positions.

Physical performances were a valorized resource for the independent school participants. A young man's position and status amongst his peers is influenced by his sporting prowess. Youth who perform well at sport are esteemed as 'cool' by their peers (Frosh, Phoenix & Pattman, 2002). Most of Them bani's class listed sports performances as their 'proudest achievements' (online portfolio questionnaire feedback, 2010). This connects to a hegemonic form of masculinity at schools for boys, whereby young men's physicality and athleticism is used to gain status amongst peer groups (Swain, 2004). Young men who excel at rugby are the most esteemed at the school, due to an ideology of muscular Christianity (Hall, 2006) that draws on hyper masculinity. While students can achieve status through academic achievement, the best rugby players hold the highest status. The manly community of the sports team provides a genuine solidarity in the struggle for victory that is far more direct than the scholarly world (Bourdieu, 2007). The most popular students across formal and informal peer groupings are those who are successful in team sports.

Often, black students who attend former "white schools" are required to produce practices of cultural assimilation which favor the dominant community in the school (Soudien, 2010). Them bani already embodied sporting and leadership priorities before attending school, which were rewarded with his scholarship. Through such scholarships, the school provided a valued opportunity for those from similar backgrounds to Them bani's to develop their sports and leadership strengths. Students could also earn scholarships that supported their assimilation of other privileged cultural capitals such as classical music. Them bani's e-portfolio reflected aspects of the assimilation practices discussed by Soudien in foregrounding two emergent personas that are highly esteemed by middle-class South Africans.

The sponsorship, awards and leadership opportunities afforded to visually creative students at the independent school manifest their comparatively low status. For example, the few scholarships available for culture are restricted to music students. There are fewer of the latter scholarships available and these have less value than other academic, leadership and sporting ones. This is a microcosm of a larger picture in which artistic activities in South Africa have always been a poor relation to sporting ones, particularly in terms of the audiences they attract and the financial support they receive from government (Thurman, 2010). Artistic pursuits are perceived to be neglected by media and by funders (Business and Arts South Africa, 2009) in comparison to the

⁴⁴ Students were awarded special accessories related to the sports colours they achieved. In addition to distinctive school sportswear, these could include blazer badges, ties and jerseys.

paramount football, rugby and cricket leagues that dominate the nation's macho sports hierarchy.

In producing his e-portfolio (see Figures 34 to 41), Thembani experienced more constraints in developing his digital hexis than George did. As a boarder, Thembani was limited to the unreliable internet access on school grounds, which he said only worked intermittently ('seventy percent of the time' [Interview with Thembani, 23 November 2012]).

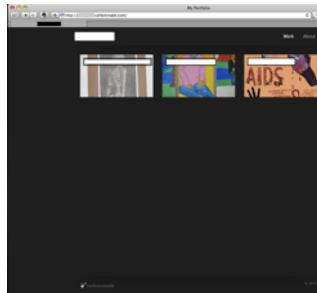


Figure 34. Screenshot of homepage by "Thembani",

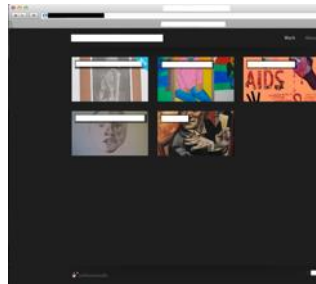


Figure 35. Screenshot of homepage by "Thembani", 2012



Figure 36. Screenshot of a "folder 4" page by "Thembani", 2012



Figure 37. Screenshot of a "folder 3" page by "Thembani", 2012



Figure 38. Screenshot of a "folder 3" page by "Thembani", 2012

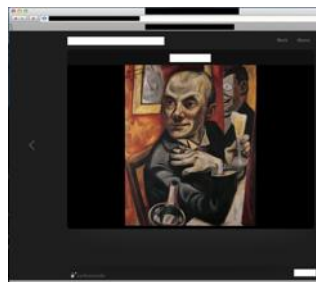


Figure 40. Screenshot of "folder 5" page by "Thembani", 2012

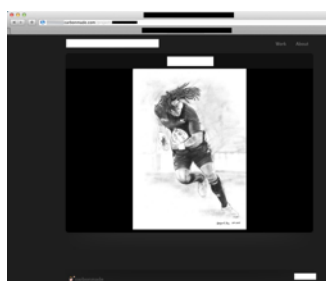


Figure 39. Screenshot of an "folder 5" page by "Thembani", 2012 in 1995



Figure 41. Screenshot of the 'About' page by "Thembani", 2012

This infrastructure also proved an obstacle in that it blocked email communication from carbonmade.com; he forgot his Carbonmade password in grade 11 and requested a new one. He could not receive a password reminder on his school email address, which reflected his school's email server settings. These blocked emails from Carbonmade by default as unsolicited email between 2010 and 2011. Although Them bani did have another email address, he did not use it to troubleshoot receiving password reminders, like other classmates did.

Them bani also experienced challenges owing to his late start in visual art at high school and being less involved in visual creativity than peers whose parents worked in cultural industries. He did not study the subject at primary school and missed the foundational grades in high school. Although he had sufficient arts equipment, Them bani did not do visual art work outside class. He could seldom find the time to do art outside class and did not have enough space to do it (online portfolio questionnaire, 2010).

His e-portfolio style foregrounded that he was a fan of 'rugby and art' (online portfolio questionnaire, 2010). His portfolio imagery remediated only visual arts class activities, with four being fan artworks of rugby. The mediums that Them bani's imagery remediated mirrored Mr. Proudfoot's teaching priorities; 17 were drawings, six were paintings and one a digital design. This range also reflected Them bani's affect for the drawing role, which he contrasted to a painter's. He didn't like the latter much as he was not 'that good' at it (Them bani, 'About' page, 2012). Them bani's self-image's choice of a group photograph showed himself, a friend and a famous rugby player on the school's prestigious first team rugby field (see Figure 41).

Them bani's inclusion of rugby fan artworks featuring elite black rugby players, which he copied from source material, resonated with the intrinsic need of fan artists to identify with the qualities suggested in the imagery they repetitively copy (Manifold, 2012). For example in Them bani's case, the rugby playing universe of strong masculinity. Such copying also mirrored the esteem that fan artists typically have for the best illustrators in a particular genre. Them bani did two unattributed, charcoal copies of Sokpart Poa's illustrations of Somoan New Zealand ('All Blacks') rugby players Ma'a Nonu (see Figure 36) and Sonny Boy Williams, respectively. Them bani copied the sketch of Ma'a Nonu in matric for his final project (see Figure 40). Although Poa's images were originally made available from his art blog at <https://artbypart.wordpress.com/>, Them bani sourced both using a Google imagery search. He explained not attributing these images as a side-effect of Google's image search results not initially showing this information. It was 'quite a mission' to search for these titles retroactively (Interview with Them bani, 23 November 2012). Them bani's choice of two All blacks rugby stars, not South African Springbok rugby players, reflected the former's status as the best team in the world.

Them bani's choice of two All Black players could also be a response to a long history of black rugby players being marginalized in South Africa. Although records of black rugby go back to 1887, this history has largely been hidden in South Africa (Thurman, 2010). The racial composition of the Springbok team has remained predominantly white. A sizeable number of local rugby fans are members of 'South African All Blacks supporter' clubs, which also support New Zealand teams against local sides. Such support may be in protest against the South African Rugby Union's (SARU) lack of transformation in the post-apartheid era. SARU has been criticized for being slow to sponsor the sport's development in under-resourced communities and unwilling to make major changes to the Springboks' racial composition. By contrast, the superiority of an All Blacks team

featuring Maori and Pacific superstars evidenced how the transformation from a mostly white New Zealand rugby team to one with a Polynesian majority (1995-6) and a Samoan captain, Tana Umaga in 2004-5, could be a positive success (Grainger, 2008). Thembanani's choice of Ma'a Nonu, a player with dreadlocks and a powerful black body, could also reflect the physical embodiment of a strong black masculinity that Thembanani identified with.

Although Thembanani had designed rugby posters outside class, he was concerned that such unofficial visual creations might have a low status. His e-portfolio did not include "unofficial" designs or photographs, such as one he took for a friend's successful submission to GQ magazine's 'Best Dressed' competition (Interview with Thembanani, 23 November 2012). He perceived such "unofficial" practices to have a low status in not producing highbrow 'Art' (Interview with Thembanani, 23 November 2012, 12). He also explained choosing a different folder title for the Aids project to that prescribed in the e-portfolio syllabus. This was to differentiate work done on computer from hand-drawn or painting productions, believing the latter to be more artistic. This mirrored the high cultural status the latter were given in class.

Keenly interested in the visual arts as his 'favourite subject' (Thembanani, 'About' page, 2012), Thembanani wanted his e-portfolio to foreground his 'artistic ability' in drawing (Interview with Thembanani, 15 November 2012). He had a relatively narrow impression management strategy compared to George and Dina. Thembanani did not believe that his e-portfolio addressed audiences outside class – according to him, it was just 'a school project' (Interview with Thembanani, 15 November 2012). Achieving good grades came to motivate him from grade eleven, when realizing that the e-portfolio syllabus was 'worth quite a lot of marks' toward his final. He increased his portfolio's size from four to 24 images and closely followed the syllabus' privacy guidelines. He did not intend to use his e-portfolio in applying for studies or work. He was uncertain about what he wanted to study after school and was considering taking a gap year doing voluntary, charitable work in another African country (Interview with Thembanani, 15 November 2012).

Although not explicitly stated, Thembanani's disinterest in design work was evidenced by what his e-portfolio might *give off* (Goffman, 1969. Ellison et. al. 2006) to online portfolio viewers. A common thread between research articles exploring the online presentation of self is that individuals employ impression management to selectively *give* and *give off* details designed to present an idealized self (Hogan, 2010) during their micro-interactions. In face-to-face communications, an individual sends two signals (Goffman, 1959); those which he gives is usually what he says and his controlled body language. What he gives off are usually non-verbal cues over which he has less control. These can be helpful to situate and verify the things he says.

Thembanani's e-portfolio style explicitly fronted his observational drawing skills, but also inadvertently gave off his disinterest in e-portfolio design. The design was disorganised and lacked editing: many photographs cut off his original artworks (see Figures 35, 36 and 38); only five images were cropped, while the rest showed areas outside the artwork; and images were not organised by date of production - his most recent works did not appear first. He was unique in not labelling any of his own artworks, rationalising that the imagery was self-explanatory. His self-description included many spelling errors and was disjointed in parts.

While Thembani did become fairly engaged with curating his e-portfolio as a school project, the next case study for Vikus uniquely describes a participant who did as little e-portfolio work as possible, despite having access to everything he needed.

Vikus - A reluctant e-portfolio curator

A white boarder at the independent school, Vikus struggled with the academic subjects it offered. He was more interested in sport and socializing than in his academic work. Struggling in his subjects, he required support with learning difficulties, often needing 'to catch up' with subjects (Online Portfolio questionnaire, 2010). He began visual art in grade 10 and initially indicated that he enjoyed doing it. However, by matric he opined that he had not made the right choice in taking the subject. He did not have passion for it and did not, 'even particularly enjoy my own work, I suppose.' He contrasted this to the sense of achievement he felt in mathematics, where he could see when he had done something correctly (Interview with Vikus, 3 November 2012).

Mr. Proudfoot's requirement that all students produce an e-portfolio was problematic for those students who were not necessarily interested in visual art, but rather used it as a 'soft option' to avoid taking "hard" subjects. Such students would lack the intrinsic motivation needed to assimilate a digital disciplined identity or for participating in visual creative personas requiring extraordinary effort. This reflects the broader reality in schooling that its students rarely share a common passionate endeavour. School is ordinarily not about trying to spread a passion to as many youths as possible (Gee & Hayes, 2012, p. 10). Pupils regularly have quite different opinions from each other and from their educator as to why they are doing what they are doing in school (Willingham, 2009).

By contrast to the students who were well-disposed to the visual arts subject, those who did not develop an appropriate habitus for this subject were likely to experience the representational question of presenting themselves online as a negative amplification of what Bourdieu terms a *cleft habitus* (Wacquant, 1989). In this sense, a cleft habitus is a micro-crisis in which individuals experience a marginalized, deviant position due to their individual habitus' lack of fit within a new field. For example, a sportily-dressed female student keen for a structured education and career path will experience conflicts when pursuing an unstructured arts program. It is characterized by uncertain career outcomes and compliance with arts students' implicit bohemian fashion norms (Flisbäck, 2014).

Likewise, for Vikus the academic and arts personas he was expected to curate did not resonate with his identity, nor was he keen to develop online presences for unknown audiences. While all other participants indicated that they wanted the formal opportunity to create online portfolios, Vikus did not. To him, presenting the prescribed disciplinary identity was a false necessity (Unger, 1987) as it was imposed on him through Mr. Proudfoot's compulsory syllabi that did not take Vikus' views into account. If given the choice, he would have chosen not to do any e-portfolio curriculum since he did not envisage a use for it. He also disliked the look-and-feel of Carbonmade, which he found hard to use. Such negative feedback was consistent with his poor perception of the e-portfolio syllabus, which he rated as the 'worst' of the grade 10 visual arts curricula (Online Portfolio questionnaire, 2010).

Vikus preferred to socialise and pursue shared media- and sports interests with his classmates in e-portfolio lessons, rather than develop his e-portfolio style. He shared

various ‘games, movies, series and music’ (Interview with Vikus, 3 November 2012), as well as rugby photography and YouTube videos, with his friends during these lessons. Although Vikus could readily access his school’s wireless network via his laptop and had sufficient infrastructure to digitize his artworks, he did not work on his e-portfolio outside class (Interview with Vikus, 3 November 2012). He also did not pursue any co-curricular or “unofficial” visual creative activities.

Another important difference between Vikus and other students lay in him explicitly expressing a desire for a known audience (boyd & Heer, 2006). One that he could personally identify, such as his Facebook friends. He had a negative perception of Carbonmade’s anonymous audience that he did not know and ‘are not my friends’ (Interview with Vikus, 3 November 2012). In digital environments, the lack of an audience presence makes it difficult for content producers to know who is listening (boyd & Heer, 2006). Negotiating these unknown audiences is challenging, as producers will have problems using a digital environment, which is commonly characterised by the absence of contextual cues for developing a clear conception of their audience(s). Vikus alluded to this by contrasting his Carbonmade audience to that of his Twitter feed; ‘But with Twitter it is your friends. That guy has been reading my post. That girl.’ Like some young South African women who mistakenly believe that Twitter is more private than Facebook (Bosch, 2011), Vikus seemed unaware that his Twitter feed was public by default. Strangers can view one’s broadcast content on Twitter if one does not change its default settings to protect one’s privacy (Lopez, 2012).

Vikus’ desire for a known audience conflicted with Mr. Proudfoot’s criteria for choosing Carbonmade software as a service not supporting online feedback and ratings. An implication of this pedagogical approach was that students could represent their work in a limited online community. At the same time, seeking attention from and interacting with audiences outside the traditional one for students’ art was excluded from the e-portfolio syllabus.

Being disinterested in curating a disciplined identity and addressing unknown audiences, Vikus undercut most of his educator’s guidelines. Vikus made almost no digital self-presentation choices and very few ones for portfolio organisation: Although 27 students provided information about themselves on their profile pages, Vikus responded by ignoring assessment guidelines to upload a personal description. His profile was blank except for his name and portfolio’s title; the latter being automatically displayed on all pages. Vikus described generally struggling with self-description. He did not write about himself on overseas gap year work application forms as he found it, ‘difficult to talk about myself’ (Interview with Vikus, 7 November 2012).

Vikus also made minimal portfolio organisation choices. His e-portfolio’s layout options and navigation style gave off languor in all being default choices; a black background, three thumbnails per row with left-and-right arrow navigation. He only published two drawings, which were compulsory tasks, assessed in particular lessons ‘for marks’ (Interview with Vikus, 3 November 2012). The default layout of his homepage showed two project folders, one with the legend ‘Drawing of a Bag’, but with a thumbnail image of a skull, the other a blank image and no title⁴⁵. The latter was an artefact of a folder that was created without artwork being added to it. Vikus had not experimented with

⁴⁵ Carbonmade has upgraded its software code since 2012 and this artefact no longer showed; if an artwork project folder did not have content it is no longer displayed at all.

changing folder imagery order, and this resulted in multimodal incoherence between a folder legend and its unrelated image ('Drawing of a Bag' for a skull-drawing). The potential confusion created by these dis-identifiers all reflected Vikus' disinterest in portfolio organisation.

Vikus' case is an important counterpoint to the other reproductions of disciplinary identity in demonstrating how curating this style can be at odds with its creator's real interests. Curation has recently acquired an ambivalent connotation in public discourse; where it not only designates the practice of assembling, styling and caring for collections, but also at times impugns it as window-dressing and disguise (McNeill & Zuern, 2015, p.xxiv). As an auto-biographical act, the prescribed disciplinary identity might be experienced only as false window-dressings for disinterested students like Vikus.

Summary of different approaches to digital disciplined identity

The previous case studies all described how students foregrounded their classroom roles as observational drawers and/or painters. While each student curated a digital disciplined identity, such identities differed widely in their levels of organisation and modal density. Such differences reflected not only teenagers' contrasting self-impression management strategies, but also inequalities in young people's resourcing:

At the independent school, George, Them bani and Vikus all had sufficient resources for curating both disciplinary and "unofficial" personas extensively. George leveraged his extensive involvement in fine arts and digital medias in formal and other spaces to curate a visual arts student's disciplinary identity beyond his educator's pedagogical prescriptions. George's simulation of a fine arts gallery and restrictive choice of only drawings or paintings took full advantage of privileges in home and media spaces in support of his vocational habitus. He was also careful to conceal "unofficial" practices in design and photography that might lose him marks. While Them bani also foregrounded formally-valued curricular practices in observational drawing, he also emphasised valued sporting personas. As a counterpoint to the other cases, Vikus' case exemplified how curating a disciplinary identity and sharing it with unknown audiences can be at odds with a young person's interests.

While the students at the independent school lived in affluent suburbs, Dina and Nathan both came from relatively under-resourced ones. Dina was able to use her privileged home internet access to create a showcase of her classroom projects. She limited her display of fan art productions to avoid any conflict that might result from their misinterpretation. She also revealed as little personal information as she could to protect her privacy from unwanted audiences.

Unlike Dina, Nathan was keen to study and work in visual creative industry. Despite being more motivated, the disciplinary identity he curated was unlikely to support such aims in being incomplete and seeming to be poorly organised. Nathan faced major infrastructural challenges outside visual arts class, which seemed to prevent him from producing a showcase of his classroom projects.

These five examples support Chapter Four's evidence, which showed how providing opportunities in class for online content production and developing digital disciplined identities did not automatically support equal outcomes. Rather than inevitably promoting a positive context for all to express classroom identities, the introduction of e-

portfolios requires careful consideration. Decision makers must reflect how teaching e-portfolios might avoid well-off students simply leveraging their privileged resourcing to secure new advantages via digital disciplined identities as digital symbolic capital. In particular, visual arts teachers and policy makers will need to consider how best to accommodate the out-of-class infrastructures that under-resourced students might access (i.e. ICT in public libraries or mobile phones) as well as prioritizing the access of these students in class.

Decision makers must also consider the implications that public engagement is more challenging for some intersectional identities than others (e.g. women facing sexual harassment). Youths who are disinterested in sharing a visual arts identity could also be accommodated with better educational support for adding other identities that have value (such as sporting or social identities).

Chapter 6: Seven young people who spotlighted their informal personas

Introduction

There were some students whose e-portfolio styles foregrounded their digital disciplined identities (discussed in Chapter Five). Another group of young people spotlighted personas linked to emerging cultural capital, rather than reproducing the academic route to distinction via an academic style. They are the focus of this Chapter, which explores seven students' informal styles and describes how they leveraged different opportunities when developing different cultural and leisure repertoires.

While producing school art works is important for developing academic cultural capital, teaching that teens should foreground being observational drawers and painters as their digital personas was restrictive. As Mr. Proudfoot later recognised, our preliminary e-portfolio syllabus needed to widen its scope, so that young people could express other dimensions of their identities. This would avoid the danger that e-portfolios have in only showing a partial view of students' learning (Cambridge, Cambridge, Yancey and Blake, 2009). E-portfolio lessons might encourage young people to express identities by sharing repertoires from other roles they valued, such as informal visual creativity or out-of-school fandoms. Yet, even this apparent opening up has potential disadvantages, as will be discussed below.

Students' usually present their social identity as embodied individuals (Goffman, 1959). By contrast, young people's presentations of their identities in e-portfolios differed in an important way by constraining them to enter data that must define their digital presence. Each student had to negotiate a digital self-presentation strategy and confront questions of which personas to add or conceal, foreground or minimize. In response to the digitally disciplined personas taught in the e-portfolio syllabus, young people added other types of persona (see tables 19 and 20 in Chapter Four) that they valued more.

Those teenagers who were interested in visual creativity remediated habituses and social semiotic spaces (see figure 2 in Chapter Two) that reflected alternate routes to visual creative professionalism. These ranged from market-driven, niche, township fashion brands to Instagram celebrity for local and international travel photography. Such habituses drew on the skills of informal roles in creative industry, craft or fan art (see tables 15, 16, 17 and 18). Teens could also foreground roles that had higher social cachet in their schools, such as being a good rugby player or a popular musician. Leisure repertoires, such as conspicuous consumption of expensive media tools and travel (see tables 19 and 20), were also spotlighted in students' e-portfolios.

Seven students who spotlighted their informal personas

Case studies in this Chapter were chosen to reveal a range of strategies. Three students from the independent school and four from the government school were selected as their repertoires led to very different e-portfolio styles. Like the previous Chapter, each case study is ordered according to students' assimilation of legitimate classroom personas in class. In addition, those informal personas that dovetailed best with institutional schooling culture as examples of concerted cultivation are considered first. Cases that feature personas strongly tied to market-driven personas in creative industry or popular fandoms are discussed later.

This ordering highlighted an important difference between the sites in young people's motivations for becoming involved with informal visual creative repertoires. While cases for the independent school students foregrounded repertoires related to concerted cultivation, government school students' informal repertoires were entrepreneurial. Such repertoires resonated with American youths who capitalized on their new media skills using three modes of economic activity (Ito, et al. 2010). These were publishing and distributing creative work, freelancing and the pursuit of enterprise.

"Kyle" is a benchmark for concerted cultivation. His e-portfolio style evidenced high production values and his informal photographic and water sports personas also dovetailed well with the ethos of his school.

"Gary" also featured being a water sports enthusiast. He added links to his informal video portfolios and highlighted being a student leader and programmer in a boarding house blog that he initiated and edited.

"Harry" initially resisted the disciplined identity by displaying sampled computer gaming imagery on his homepage. While his approach shifted to foregrounding his classroom projects, he still described other cultural capital that he valued over that taught in Mr. Proudfoot's lessons.

"Herschelle" emphasized his enjoyment of informal productions as a photographer of his Hanover Park neighbourhood, as a photo-editor and a computer-based graffiti artist. He was under-resourced, which hindered his development of creative repertoires.

"Melissa" published works related to her desire to become a professional animator. She shared her fandom of Japanese pop culture in her e-portfolio, as well as in other online portfolios.

"Masibulele" added an entrepreneurial persona after initial reluctance by featuring his clothing label's productions. He also foregrounded aspects of blackness in curricular projects, but did not share the traditional Xhosa imagery he made at home.

"Lesley-Ann" already had an overall online identity as a popular music performer and multi-platform artist. She hid her student identity and shared illustrations that reflected her interest in pop culture.

Following informal routes to professional visual creative identities

Informal creative practices were not presented as a path *en-route* to a disciplinary identity in visual arts lessons. In particular, we did not assess young people's informal visual creativity, fandoms and related entrepreneurial interests. Nevertheless, it was conspicuous that most students at both sites added these informal roles and other personas to expand their prescribed ones. Such sharing of broader identity projects resonated with wider social trends of producerism, creative entrepreneurship (Deresiewicz, 2015) and multi-platform artistry.

Affluent visual creatives can readily use exclusive digital information infrastructures to experiment with varied roles (such as a blogger or YouTuber) and for sharing digital portfolios. Chapter Four revealed that students were involved in different forms of producerism (such as videography). A few students, all with home or boarding house internet, added links to other portfolios (see tables 30 and 31 in that chapter) from their e-portfolios.

Creative entrepreneurs often present a multiplicity of identities (a musician *and* a photographer *and* a painter) online. Presenting a range of creative identities reflects the importance of flexibility for creative entrepreneurs in an uncertain labour market (Deresiewicz, 2015). Artists may design varied social-media presences to cater to different networks. For example, Banksy a prominent multiplatform artist, (a graffiti-artist, public-sculptor, event-organiser and prolific Twitter user) was listed as an inspiration by a few independent school students.

Teenagers' visual creative involvement in informal social semiotic spaces

Teens' negotiation of informal visual creative repertoires reflected young people's involvement in social semiotic spaces outside school. Chapter Four's analysis of students' informal roles (see tables 17, 18, 19 and 20) and social network choices (see tables 32 and 33) surfaced participants' development of repertoires in home, media and vocational spaces that were linked to fan art and creative industry:

Fan art and other informal images linked to typical teenage interests

The subject-matter of students' informal images expressed typical teenage interests in sports, popular music, clothes, socializing, dating and popular lexicons (see tables 19 and 20 in Chapter Four). Young people's informal imagery included the subject matter of; rugby and football sports, popular music and dance, computer games, calligraphy, graffiti, tattooing, animation, Japanese animé and manga.

Informal media formats evidenced interest in creative industries

Examples of young people's interest in creative industries existed in formats of imagery (see tables 27 and 28 in Chapter Four) that students had learnt to create outside class. These included; photographic experiments, graffiti stencil and tattoo designs and videography. Self-publishing to other platforms (see tables 30, 31, 32 and 33), such as blogs and Facebook pages, also evidenced teenagers' informal new media practices.

The first case study introduces Kyle, a dayboy at the independent school who lived in Camps Bay. His visual creative personas mirrored his privileged access to water sports and other exclusively resourced lifestyles as well as to costly media infrastructure. He successfully leveraged these for becoming a very well-known Instagram user and to do freelance photography and videography while studying Business Science at university.

Kyle- A keen 'producer' of photography and water sports videos

Kyle's e-portfolio (see Figures 42 to 45) foregrounded his differentiating practices as a photographer (including international subject-matter) and as a water sports videographer. Kyle was unique amongst students in becoming one of South Africa's most popular Instagram photographers not long after participating in this study. An accomplished photographer and videographer, he successfully leveraged his richly-resourced media environments (see Figure 46) to develop a consistent entrepreneurial persona across multiple sites and for sharing his fandom for water sports. His distinctive e-portfolio style linked to these other online portfolios. Its design drew on Kyle's highly developed digital hexis and emergent cultural capital in informal domains.

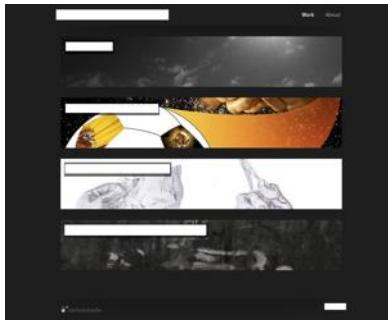


Figure 42. Screenshot of homepage by "Kyle", 2010

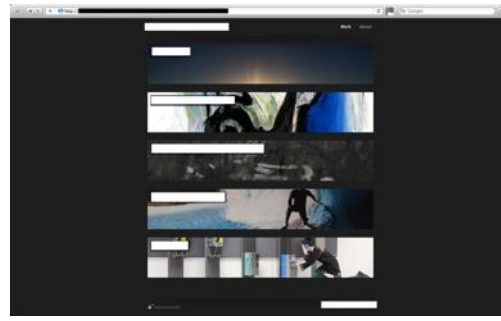


Figure 43. Screenshot of homepage by "Kyle", 2012



Figure 44. Screenshot of a "folder 2" page by "Kyle", 2012



Figure 45. Screenshot of the 'About' page by "Kyle", 2012



Figure 46. Screenshot of a photograph "Kyle" shared on Instagram of his travel 'goodies', 2015



Figure 47. Screenshot of "Kyle's" Vimeo homepage, 2015

It also reflected a broader cultural imperative in demonstrating a cultivated *media technicity* that dovetailed with his school's institutional cultural capital. Technicity is the extent to which people possess technical skills or technology (Oxford Living Dictionary, 2018). In Kyle's case, he was highly interested in technical knowledge that supported capturing his perspective, such as when wave boarding or hiking.

Like George, Kyle had resumed visual arts in grade 10, but had been involved in visual creativity since he was young. He enjoyed a media-rich environment at home, where he always had access to; a computer, scanner and camera. He first became involved in photography and videography after beginning to use a 'family owned' digital Sony Cybershot 'at the age of 10' (Kyle's blogsite, 2017). He also had the space and equipment to do visual art work, which he could mostly find the time to do (Online portfolio questionnaire feedback, 2010). Being a self-motivated, do-it-yourself visual creative was an important part of Kyle's identity (Kyle, 'About' page, 2012) and he practiced such creativity on average 'six days a week' in grade 10 (Online portfolio questionnaire feedback, 2010).

Kyle was keen to show his 'point of view' in leisure activities and used 'film or photography to express that' (Interview with Kyle, 3 November 2012). Before he started

the e-portfolio curriculum, Kyle was already sharing his photography online via Facebook. In addition to experimenting with varied professional cameras and lenses he had bought 'second hand', he also honed his photo-editing skills by using the relatively exclusive software Adobe Photoshop together with its Lightroom service for photo management.

His e-portfolio design stressed the salience of his informal photographic work by ignoring his educator's guidelines that folders should be organized in alphabetical order. Kyle deliberately placed the folder of his photographic work at the top of his homepage (see Figures 42 and 43). Kress (2010) argued that the placement of elements endows them with specific informational values attached to the various zones of the image. In Kyle's case, he enjoyed using photographic and video media. The importance to him of being a photographer was also evident in the high proportion of photographs that his e-portfolio curated; by 2012, Kyle had published 34 images, 14 of which were photographs. The rest comprised mostly curricular artworks (see Figure 44) or other done during Accelerated Art society workshops.

In foregrounding his informal photographic interests, Kyle seemed to have a high level of effective power and procedural control over his e-portfolio's curation choices. According to Sen's capability approach, a person's freedom can be assessed in terms of the power to achieve chosen results (Sen, 1985). This can be explored using the two analytical concepts of *effective power* (whether a person is free to achieve an outcome and whether these choices will be respected) and *procedural control* (the extent to which a person is himself exercising control over the power of choice). Rather than closely following Mr. Proudfoot's criteria, Kyle's e-portfolio style gradually changed over time to better reflect both his new informal interests and influences:

Kyle's e-portfolio homepage changed by 2012 to use one blue color tone consistently across all imagery (see Figure 43) thereby creating a coherent visual element between diverse subject matter. This choice resonated with Flickr and Instagram photographers who give their feeds a coherent look-and-feel by choosing colors that 'keep them unitary' (Post on Kyle's girlfriend's blog, 2016). Kyle's e-portfolio also evidenced the deep interest that photographers typically share in the technicity of the photographic production process (Derrida, 1981, 2010). He described the photographic equipment he used under his photography folder. Its folder description field's text listed the lenses and cameras he used 'Canon 400D and Canon600D, Lenses 18 - 55mm & 75 - 300mm' (Kyle, photographic folder pages, 2012). Kyle also designed his own logotype that was used as a watermark for select photographs.

Over the three years of the e-portfolio syllabus, Kyle's self-presentation style consistently foregrounded his interest in photography and photographic editing. His self-description (see Figure 45) listed 'photography', 'photoshop' and 'filmography' as skills. He also added a link to his Vimeo portfolio of films in his self-description (Kyle, 'About' page, 2012).

Kyle was also unusual amongst his peers, and online audiences more generally (Bird, 2011), in becoming involved in produsage. He engaged with online photography and video communities to share his productions and to develop associated skills: He created a Flickr photographic portfolio and had joined specific camera groups, such as brand, film and lens varieties (Kyle, Flickr Groups folder page, 2012). This enabled him to see

what other Flickr contributors had produced with these particular technologies. If he needed help ‘with a specific issue’ he would ‘YouTube/Google’ it (Kyle, Website, 2017).

Kyle’s had a strong interest in watersport (Interview with Kyle, 3 November 2012), enjoying ‘water polo and bodyboarding’ (Kyle, ‘About’ page, 2012) the most. He filmed himself bodyboarding at local surf spots with a Go Pro video camera. He shared the videos he created and his inspirations via YouTube and Vimeo (see Figure 47). To improve his filming and editing techniques, he used feedback and advice from communities of ‘surf’ photographers and videographers, such as ‘Deben Graham’ (Interview with Kyle, 3 November 2012). For example, “Gary” described how Kyle developed skills using a professional video editor’s feedback. He learnt to show the detail and excitement of a giant wave ‘breaking extremely slowly in detail’ by approaching an editor, who explained how one can ‘render and double up the frames’ in Final Cut Pro software (Interview with Gary, 3 November 2012). Such self-motivated use of online resources for creative studies resonated with the informal⁴⁶ ‘Connected Learning’ pursued by South African university students (Noakes, Czerniewicz & Brown, 2013).

In addition to negotiating his informal interests against expressing a disciplinary identity, Kyle was strategic in managing the collapsed context of his e-portfolio. He linked to his Vimeo account, to which he only published water sports videos. He did not link to his YouTube account, describing the videos he had uploaded to it as ‘*just junk*’ (Interview with Kyle, 3 November 2012). Such videos included him driving his first car and adding a fan to his customized gaming PC (Kyle YouTube account, 2015).

Kyle wanted to be an accountant after studying Business Science at university. By 2015 he was able to combine the entrepreneurial skills he learnt with his ‘point of view’ productions: one of a few students who updated their e-portfolios post- matric, Kyle continued experimenting with using other social networks and portfolio services. He created a Google Plus and Facebook fan page, an Instagram account, a PhotoShelter portfolio website and Tumblr photographic blog. He believed the latter made it possible for him as an independent creative to develop an appreciative audience (Online magazine’s interview with Kyle, 2016). It drove him to photograph on a much regular basis and its inspiration expanded his photographic skill-sets, for example to include underwater photography. He became one of South Africa’s most popular Instagram photographers; by 2017 his Instagram account had attracted over eighty thousand followers of its photography of beaches, surfing, models, events and travel. He had also created a photographic gallery of quality prints for sale via the United States-based Adorama service, which enabled international fans of his photography to easily purchase the prints.

Kyle’s case as a self-taught photographer who used online services to develop into a well-known freelancer evidenced how well-resourced and keen photographers can accelerate their skills development. His choice of elite leisure practices as popular subject-matter for online audiences also highlighted how Instagrammers are using *media visibility* as a new form of cultural excellence (Heinich, 2012). Traditionally, a photographer’s

⁴⁶ Chapters Four and Five described how students foregrounded digital disciplined identities and negotiated adding “unofficial” personas that the visual arts syllabus seemed to marginalize or exclude. Both chapters used “unofficial” to foreground the “low” status of personas not canonized as academic cultural capital. By contrast, this chapter shifts to rather using the term ‘informal’ personas than “unofficial” ones. This reflected how the seven teenagers’ informal personas should rather be understood in terms of potentially creating value in informal settings, rather than their symbolic value at their school (Chapter Four) or in differing from the prescribed identities (Chapter Five).

legitimacy used to result in fame and visibility. By contrast in contemporary screen based culture, the former often stems from the latter. His case also suggests the rich combinations of capital that facilitated his early entry into creative industry and helped enable his rapid success in participatory culture.

The next case describes Gary and also highlights how high levels of capital and his advanced digital hexis supported the development of several producer personas, which he linked to from his e-portfolio.

Gary - A leader, blogger and video producer

Gary was a school boarder, who only started studying visual arts in grade 11 after switching from Information Technology. Richly resourced, he had ready access to scanners, cameras, a laptop, a Blackberry tablet and video equipment (including Go Pro video cameras⁴⁷). He readily shared his informal creative productions with known audiences via email and also Facebook before being taught e-portfolio lessons.

Despite a late start in art and not involving himself in the Accelerated Art or Digital Design societies, by matric his e-portfolio (see Figures 48 to 52 overleaf) featured many informal visual creative personas plus others. Gary's personas included a leadership role as a 'school cheerleader' (Interview with Gary, 6 November 2012) for his boarding house's sport- and social events. In this role, he also painted murals on his boarding room's walls and initiated his boarding house's blog, which he used WordPress to code. He edited, wrote for- and linked related productions as a videographer and photographer from this blog.

A surf club member and keen body boarder, Gary also created body boarding videos. Kyle and Gary's videography paralleled how many action sport enthusiasts are now entangled with digital media (Evers & Weallard, 2015). He entered one of his videos into an online 'Wavescape' competition. He used his YouTube account (see Figure 53) to share his surf productions and those created for his boarding house. While surfing fans include prosumers of related media on social networks, Kyle and Gary were part of a more exclusive group that consisted of producers of surfing videos and photographic portfolios. This group draws on economic resources, digital network access, and/or media literacy skills (Thorpe 2014) that serve as gatekeepers to others' membership.

Initially doing the 'bare minimum' during the e-portfolio curriculum at the start of grade 11 (Interview with Gary, 6 November 2012), Gary become more committed to the visual arts subject by matric. He uniquely attributed this increased attentiveness to his enjoyment of informal productions in videography, photography, photo-editing, ink and stencil. Gary's strong interest in photography and videography mirrored the Cape Town film industry's importance to his primary habitus. His mother is a 'wardrobe specialist' and both his father and stepfather were directors. A fan of film and documentaries, Gary had also gained experience through acting as a high school student in an international adaption of a best-selling local novel (online portfolio questionnaire, 2011).

⁴⁷ Nicholas Woodman originally developed a wearable digital video camera in a waterproof container that he attached to his wrist to record himself and his friends surfing (Evers & Weallard, 2015). His company, GoPro™, launched a small, water-proof and robust wearable digital video camera in 2004. The camera enabled the filming of high definition, point-of-view footage or it could show the sports enthusiast doing his or her activity. It could be attached to parts of the body or sporting equipment and vehicles. The GoPro™ camera then became a ubiquitous technology in surfing culture for uploading footage to the internet.

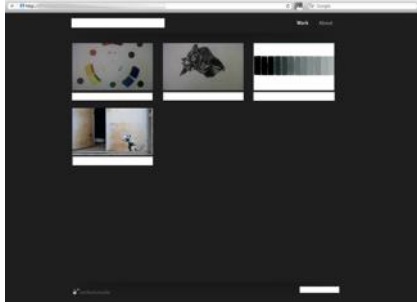


Figure 48. Screenshot of homepage by “Gary”, 2010

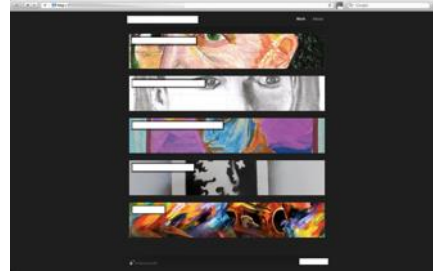


Figure 49. Screenshot of homepage by “Gary”, 2012

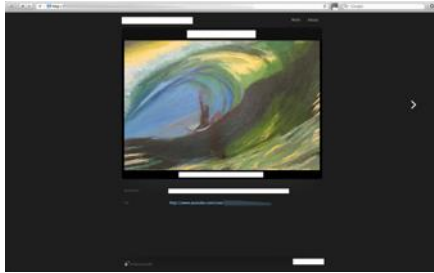


Figure 50. Screenshot of a “folder 1” page by “Gary”, 2012

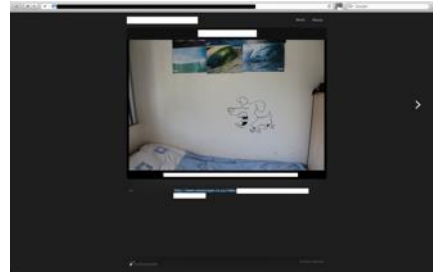


Figure 51. Screenshot of a “folder 4” page by “Gary”, 2012



Figure 52. Screenshot of the ‘About’ page by “Gary”, 2012

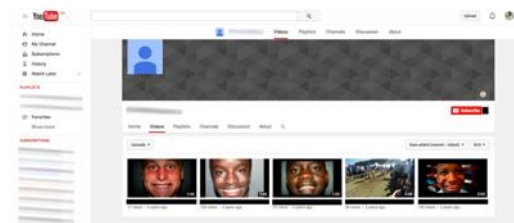


Figure 53. Screenshot of “Gary”’s YouTube videos page, 2012

Gary’s keenness to be involved with informal creative practices was also tied to his desire to study and work as a graphic designer. Although his profile described his intention to study a Fine Arts degree (Gary, About me, 2012), he eventually studied graphic design at a local academy for design and photography (Gary, Facebook message, 28 October, 2013).

A keen producer, Gary used the internet as a learning resource. For example, he used YouTube video tutorials for guidance on operating Final Cut Pro and DirectX video editing software. It is rare for non-professionals to edit with high quality media (Green, Schofield, Pritchard, Olivier & Wright, 2017). Non-professionals typically disengage with video-production at the editing stage owing to being unfamiliar with specialist vocabulary and lacking specific technical skills. Gary could readily source advice and support from his peers and parents to address such gaps, but he preferred to learn through ‘trial and error’ and ‘playing around’ (Interview with Gary, 6 November 2012). Inspired by the e-portfolio syllabus, Gary also did online searches for digital services that might be more useful to him than Carbonmade.

As a boarder, Gary negotiated the limitations of his school’s internet provision by making workarounds. He was reliant on his school’s internet infrastructure during term time. He expressed frustration that the use of Carbonmade was slow and unreliable on campus taking ‘like three hours to upload two images’ (Interview with Gary, 6 November 2012).

Although his school had 'fast internet', its usage policies blocked 'uploading and downloading stuff' (Interview with Gary, 6 November 2012). Gary's experimented with workarounds when working with large video files intended for his boarding house's blog. He created his YouTube account to upload large files at home. He referenced the URL at school for editing videos before publishing them.

For Gary, his examiners and invigilators were the target audience of his e-portfolio and his aim was primarily to fulfil the syllabus' requirements to get marks for a 'school project' (Interview with Gary, 6 November 2012). He was not keen to show it outside class, likening this to showing people 'maths textbook exercises'. While achieving high marks for curating a digital disciplined identity provided strong motivation for Gary, this conflicted with his desire to be seen as a culturally adventurous and 'show what else' he was capable of. While his e-portfolio style closely followed Mr. Proudfoot's guidelines, it also showcased Gary's informal creativity. His profile mentioned his roles as a photographer, videographer, video-editor, blogger and graffiti muralist (Gary, 'About' page, 2012). He listed informal skills in 'Windows Movie maker', 'i-Movie' and 'Photoshop' and provided active hyperlinks to his YouTube video portfolio and his boarding house blog.

His matric homepage's design (see Figure 49) was unique amongst his peers in featuring a portraiture theme. He followed Mr. Proudfoot's suggestion that having portraits of faces on different panels could make Gary's homepage 'look quite interesting' (Interview with Gary, 6 November 2012). In 2011, his e-portfolio was split between curricular productions and ten graffiti images all attributed to www.banksy.co.uk. By 2012, Gary had increased his portfolio's size and diversity. Most images were curricular, spanning diverse media from oil pastel to an abstract computer graphics edit applied to a painting of his. Gary organized these artworks extensively by using labels for all of them. He used the site field in one folder to add a link to his YouTube site and to the Wavescape competition in another.

Gary negotiated his educator's privacy concerns against the opportunities that communicating with online audiences might generate. Gary was keen to attract unknown viewers to digital productions outside his e-portfolio and was unique amongst participants in expressing frustration at being unable to use Carbonmade for understanding his online audience. He contrasted Carbonmade to Vimeo and YouTube, which provided audience metrics. Gary liked to know the number of views the videos he shared attracted and the countries his online audiences came from (Interview with Gary, 6 November 2012).

Gary also negotiated protecting his privacy and presenting himself as a creative freelancer. While he did not display the 'Available for freelance' button, Gary provided his school email address to prevent 'missed opportunities' (Interview with Gary, 6 November 2012) that communicating with an online audience might lead to. Although he had removed his school's name from his profile description to comply with privacy guidelines, these were ineffective in his case - Gary could still be easily identified from his email account, clicking to his boarding house blog or doing an online search using his name.

The next case introduces Harry, who initially foregrounded his informal computer gaming fandom as a gesture of transgression. He disliked the artistic genres he was taught at the independent school. His aesthetic interests diverged widely from Mr.

Proudfoot's syllabi. Like Kyle and Gary, Harry's inclusion of informal personas marked his privilege. By contrast, Harry's privileged personas were more closely linked to his roles in sports, musicianship, extra-mural societies and computer gaming than informal visual creativity. Harry also had an entrepreneurial interest in being easily contactable that conflicted with his teacher's privacy guidelines. While Harry's e-portfolio style eventually changed to foregrounding curricular work, he continued to highlight his greater affect for exclusive informal personas, though.

Harry- A fan of “unofficial” aesthetic forms

A dayboy who lived close to the school, Harry's initial e-portfolio style (see Figure 54) did not foreground a student identity. By 2012 his digital disciplined identity uniquely expressed his disinterest in the school subject's creative repertoires, ‘...the kind of art we do here is not the kind i am truly interested in’ portfolio (Harry, ‘About’ page, 2012). Harry was interested in ‘cartooning, and logo design’, but did not feature these in his e-portfolio style. Individuals express active dislike to articulate positions of marginalization and exclusion from a perceived norm (Gray and Murray, 2015). Harry voiced strongly opinionated feedback on changing the whole visual arts syllabus if he could to focus on the imagery that interested him. Such a complaint reflected the reality that art curricula are often developed without regard for students' interests (Toku, 2001). Harry would have preferred to study being a concept illustrator that could draw ‘characters from video games’ or a tattoo artist who could prepare ‘nice tribal designs’ (Interview with Harry, 23 November 2012).

Harry had all the equipment needed for visual art outside class, but he described not having enough space nor the time or encouragement to pursue such interests (Out-of-class questionnaire, 2010). Harry's commitment to many other school roles was mirrored in a self-presentation style that mostly focused on school activities outside the visual arts subject. Unlike most of his classmates, he did not describe his visual art projects. Nor did he include a self-reflection on his progress in the subject or add the other prescribed content regarding his school's visual arts programme.

Rather, Harry listed his involvement in other school-, sport-, music- and leisure roles. He listed his school subjects and that he was a member of three extra-mural societies. As a sportsman, he played rugby and water-polo. He also participated in body boarding, ice skating and go-karting. He most enjoyed being a musician using varied instruments, a singer and socializing. He described art as a hobby, but ‘nothing compared to music’. The latter's importance was also shown in his self-image selection, which was a sampled image of himself dancing and singing in a group performance (Figure 57). A classmate, “Moeneeb” supplied this picture, which he screen-captured from a video of the school's inter-house cultural competition.

These “unofficial” visual culture fandoms where Harry participated differed strongly from the legitimated domains of visual culture taught in class. He was a computer gamer and enjoyed exploring tattoo illustrations and graffiti stencil design.

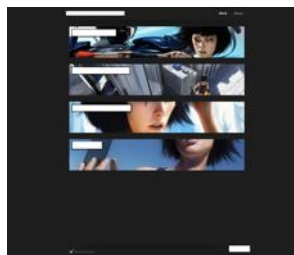


Figure 54. Screenshot of homepage by "Harry", 2010

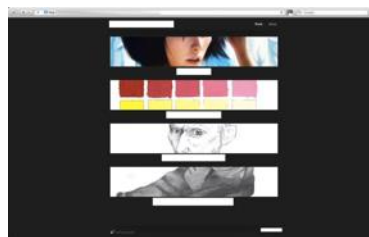


Figure 55. Screenshot of homepage by "Harry", 2012

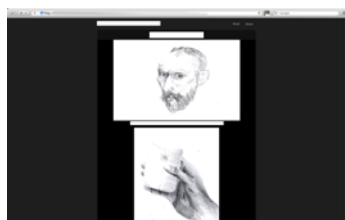


Figure 56. Screenshot of a "folder 3" page by "Harry",
2012



Figure 57. Screenshot of the 'About' page by "Harry",
2012

Such fandoms enabled him to learn about aesthetic styles and subject matter that was different to the conventional still-life subject matter and restrained aesthetic styles taught at school. Young people often seek out appealing pictures that project a 'WOW!' factor (Jenkins, 2006) or present the extraordinary to distinguish them from the mundane visual environment of teens' ordinary lives. In pursuing tattoo and graffiti design, Harry could explore fictional aesthetic creations that might astonish or surprise. Such creations would be stunningly different to the ones he was exposed to in Mr. Proudfoot's arts studio.

An individual's habitus is most useful in explaining the social action of individuals where normative rules are not explicit (Bourdieu & Wacquant, 1992). Harry chose to foreground his preferred habitus as a computer gamer as his e-portfolio's homepage interface: In the absence of explicit homepage guidelines in 2010, Harry acted as a *textual poacher* (Jenkins, 1992) by taking media elements of his own choice to re-present and make new meanings. He arranged four sampled images from 'different steps' 'Mirror's Edge' (sourced from a Google images search for this computer-game) as his folder covers (see Figure 54). This sequence of scenes resembled the serialized look of a comic action sequence. It also served as a digital *front* that reflected his outsider status to the visual arts doxa. Front is the expressive equipment of a standard kind of intentionality employed by the individual during his performance (Goffman, 1959). The front is a way of being in the place within a group and its social arrangements. Harry was the only student to appropriate images from a computer game into a comic narrative and also foreground being a keen computer gamer on his homepage.

Foregrounding computer gaming on his homepage evidenced Harry's distanced and ironic attitude to the visual arts syllabus. Comics and graphic novels are not fully recognized in art circles (D'Arcy, 2006, McCloud, 2000), while the aesthetics in computer gaming are commonly dismissed as trivial and lowbrow (Aarseth, 2003). His homepage also revealed a transgressive pleasure (Duncum, 2009) that many students enjoy in blurring distinctions between high and low culture (Faucher, 2016) via ironic sampling and style exploration. From 2011 Harry made major changes to his e-portfolio's style in response to Mr. Proudfoot launching an assessment strategy that explicitly defined types

of choices that students should make. Soon after Mr. Proudfoot set rules for homepage design and started assessing students, Harry removed three of the images from his folders and followed the classroom convention of discrete folder covers (see Figure 55).

Harry's aesthetic rebellion was short-lived and he re-organized his portfolio to match what Mr. Proudfoot wanted. Harry ironically remarked that he 'obviously needed the marks' (Interview with Harry, 23 November 2012). He required a good result in visual arts for the high matric aggregate he needed to study Business Science. Harry's 2010 portfolio had foregrounded the visual culture genres he valued; of six images, four were concept artworks and illustrations by designers he did not attribute. By 2012, he conformed with a digital disciplined identity by shifting to featuring 17 curricular artworks in his showcase that were all labelled, albeit in varied formats. Harry's changed e-portfolio style and compliant habitus reflected the strong influence of educational norms (Bourdieu & Waquant, 1992). These are difficult for an individual to challenge, such as when regularly reinforced in visual arts lessons.

Like several other students, Harry rebelled against guidelines not to reveal his school's name or provide his private contact details. He argued, '...why would you have a thing that you could share your stuff with the world, if people can't contact you.' (Interview with Harry, 2 November 2012) Harry published his mobile phone number and school email address. He believed that making these contact details public were validated after the Filter Foundry online portfolio website emailed him. Although Moeneeb teased Harry that it was a mass, unsolicited email, he was still pleased at the recognition.

Harry initially foregrounded his informal computer gaming fandom before shifting to a prescribed disciplinary style whose genres he had low affect for. Being a computer gamer might seem unremarkable to his classmates, but such a persona is a privileged one in South Africa where gaming on computers and consoles is a middle- to upper class pursuit (Walton & Pallitt, 2012). Computer games are one of the most prominent leisure activities for middle-class youth worldwide (Beavis, 2007). Likewise, Harry's other musical and sporting digital personas reflected privileged achievements supported by an élite school (see Chapter Four).

By contrast to the well-resourced Kyle, Gary and Harry, the next case study is for an under-resourced student from the government school. Herschelle's e-portfolio style foregrounded his interest in becoming a professional photographer or graphic designer. Technically savvy, he faced constraints in being under-connected, which hampered his development of these informal personas and also their digital curation.

Herschelle - Photographer, photo-editor and computer-based graffiti producer

From the working-class suburb of Hanover Park and a single-parent household, Herschelle chose to foreground informal practices in photography and design (Figures 58 to 60). His e-portfolio's style foregrounded his desire to do work in these roles for creative industry. Although Herschelle would have studied design as a subject in addition to visual arts, he was advised to focus on visual art for its 'broader outlook' (Interview with Herschelle, 18 April 2013). Herschelle believed that Mrs. Zahra's projects had helped her class explore new styles versus sticking to 'what we knew'.

Chapter 6: Seven young people who spotlighted their informal personas

Before the e-portfolio syllabus, Herschelle already used Facebook and BlackBerry Messenger's social networks to share informal graphic design and photographic projects. His online access was limited to the computer lab and his BlackBerry mobile phone (online portfolio questionnaire feedback, 2012). He was better-resourced at home than at school, since he could always access a computer, camera and scanner at the former. At school, he did not access a scanner or the internet outside e-portfolio classes as 'they don't always allow us to use the computer room' (online portfolio questionnaire feedback, 2012).

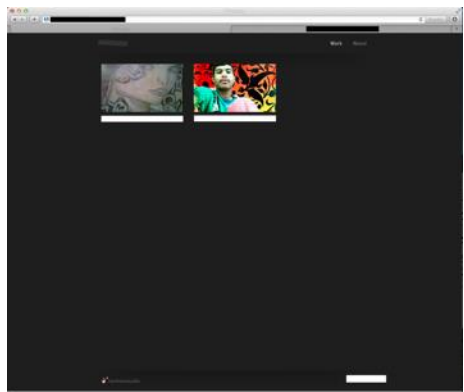


Figure 58. Screenshot of homepage by "Herschelle", 2013

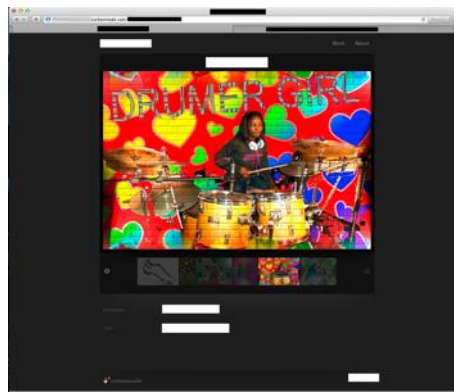


Figure 59. Screenshot of a "folder 1" page by "Herschelle", 2013

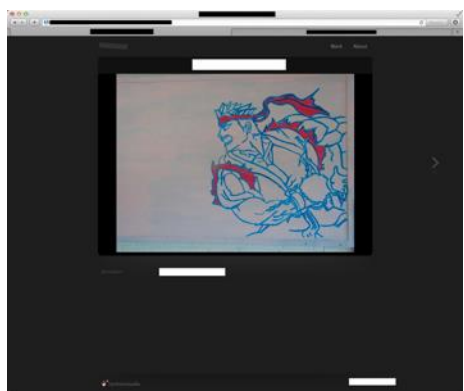


Figure 60. Screenshot of a "folder 2" page by "Herschelle", 2013

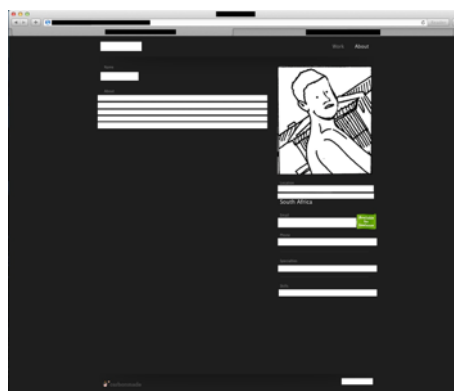


Figure 61. Screenshot of 'About' page by "Herschelle", 2013

Even in e-portfolio lessons, the internet 'takes too long', so Herschelle uploaded pictures from his phone as it was 'much faster'. During break, there were many people using the computer lab and he had to wait a few minutes before internet access 'really worked' (Interview with Herschelle, 18 April 2013).

Herschelle's opportunities for articulating his informal roles were handicapped by his limited access to the internet at school and on his BlackBerry phone. Despite being keen to upload; stills from his job shadow animations, a matric tracksuit and other graphic designs, as well as select graffiti produced on his PC (Interview with Herschelle, 18 April 2013), he did not.

Herschelle was unique amongst his classmates in describing the reason that he volunteered for the e-portfolio curriculum to be it giving him an opportunity to exhibit his 'Photoshop' and 'animations work', rather than curricular drawings and paintings. He believed he did not have the opportunity to share informal work at school, 'because

that's not what the teacher wants. She wants us to do what she says.' (Interview with Herschelle, 18 April 2013).

This perception was reflected in his grouping of 'school work' in one folder and photo edits under another (see Figure 58). His curricular folder contained four images, while the other comprised 13. This contrast reflected his interest as a sign-maker in showing work that was 'more creative', rather than what the 'teacher told me to do' (Interview with Herschelle, 18 April 2013). Near home, he photographed his family and neighborhood friends using a 'normal mobile camera'. He edited these pictures on a home PC using Corel Pro Paintshop following guidance from a friend. Herschelle did not receive guidance from his parents, who 'were like shocked to see what I could really do'.

Herschelle showed the importance that informal practices held to him by listing 'animation' and 'graphic design' as his skills and 'grafitti' as one of his specialties, in addition to 'sketching' (Herschelle, 'About' page, 2014). He had produced short animations while 'job shadowing at a graphic design studio' (online portfolio questionnaire feedback, 2012) and also did design work as a job shadow (Interview with Herschelle, 12 April 2013).

Keen to work in the creative industry, Herschelle hoped that his e-portfolio would be noticed by 'businessmen' (Interview with Herschelle, 18 April 2013), who could provide him with paid work. His entrepreneurial ethic and desire to facilitate commercial work was reflected in several communication choices; his 'About' page showed that he was available for freelance and he used all Carbonmade's contact detail fields (email, mobile phone number and home address) (Interview with Herschelle, 18 April 2013). Herschelle described not having privacy concerns and believed that potential employers should know where he lived.

While Herschelle was keen for potential clients to contact him, his five-line profile did not represent his vocational ambition or job shadow experiences. Instead he briefly mentioned his personas as a sportsman, animal lover, socializer and sketcher (Herschelle, 'About' page, 2014). His self-presentation style (see Figure 61) was informal versus a formal one (such as a Curriculum Vitae) that potential employers might expect to view. As is common amongst teenagers, and was for his classmates (see Chapter Four), Herschelle's style seemed to address teenage peers. Like an SMS chat with a stranger, his profile only used the capital letter case and included emoticons. His self-image was likewise relaxed, featuring a side-view of him bare-chested with a spray-on tattoo from a 'Mardi Gras' event (Interview with Herschelle, 18 April 2013) prominent on his right arm.

Herschelle did not use his name as a portfolio title, but one that reflected his ambition to master photography and design. His up-and-coming technical mastery was evident; in learning to use Corel Pro Paintshop at home, helping friends during e-portfolio lessons and being entrusted with the school principal's camera for taking pictures of the class' artworks. Herschelle's technicity was also evidenced by his work arounds to the large imagery that his mobile phone's camera set by default. He learnt to compress its pictures using the camera's settings.

While highly resourceful, the broadband and infrastructural constraints that Herschelle experienced contributed to him being dissatisfied with some aspects of his e-portfolio: He would have liked to upload more imagery, such as the 'after' photo for Figure 60. He would have split his photographic folder into two folders; one for plain photographs and

another for 'Photoshopped work'. He had also wanted to share the animations he made on his PC, but free Carbonmade membership did not support uploading video files. With limited access to broadband, he could not experiment with uploading video files to other services, such as YouTube.

While Kyle and Gary had developed their photographic and videographic personas quickly, Herschelle's out-of-school resourcing constraints slowed such development. Limited internet access constrained his online opportunities to learn and share the informal personas he valued. Kyle was privileged to have professional grade photographic equipment and design software. He also could readily refer to online resources for realizing the professional-looking aesthetic in his photographic and e-portfolio style. By contrast, Herschelle used his camera and entry-level software for achieving an aesthetic that resembled a hobbyist's initial experiments with neighborhood photography and photo-editing. Both Herschelle's informal self-presentation and experimental e-portfolio style and Kyle's formal, professional-looking one were strongly linked to their very different opportunities.

After matriculating in 2014, Herschelle studied at a local college in 2015, then started work as a printer assistant in 2016. He continued to develop new skills, listing 'Adobe Photoshop' as a professional skill under his Facebook profile. He also intended to start his own YouTube channel about 'tech, gaming, football and basic life in Cape Town' (Herschelle's Facebook wall, January, 2017). In his home Ward 47, Herschelle was unusual in having achieved a matric pass and in finding employment. Just under 32% of young adults between 20 and 24 matriculated in this ward between 2011 and 2015 (Western Cape Department of Education, 2015) and 63% of youths between 15 and 24 years old were unemployed in 2011 (Statistics South Africa, 2012)

The next case study introduces Melissa, a government school student from the suburb of Heideveld, who was fortunate to have home internet access and her own computer. Her e-portfolio (see Figures 62 to 67) foregrounded the personas of a mixed media artist, manga fan, emo lyric writer and aspirant animator. Unusual amongst the volunteers, she created three extra online portfolios to showcase her informal illustrations and poetry productions. She also deliberated about revealing her entrepreneurial identity against privacy concerns related to sexual harassment.

Melissa - A fan artist of Japanese culture and aspiring animator

Melissa was initially keen to study Fine Art in 2012. Achieving university access would be highly unusual for a Ward 44 resident as only five percent of its youth aged twenty to twenty-four years old are enrolled in tertiary education (Statistics South Africa, 2012). She changed her mind by 2013 to focus on educational opportunities that might support work in animation, 'I know I should have a plan B, but plans A, B and C is animation.' (Interview with Melissa, 30 September 2013). She was keen to study animation as part of a design degree at a local university or as a qualification at the 'Prestige Academy', 'City Varsity' or 'those expensive places.'

Melissa's ambition to work in animation manifested her long-term interest in Japanese manga and animé productions, which started when she was *'little'*. Adolescence is a stage where youth become serious about fan culture (Manifold, 2009). In Melissa's case the influence of Japanese media 'escalated' in grade 10 to shape her interest in moving from being a fan artist to training to become a professional animator.

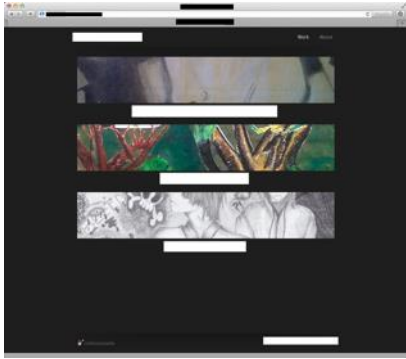


Figure 62. Screenshot of homepage by "Melissa", 2013

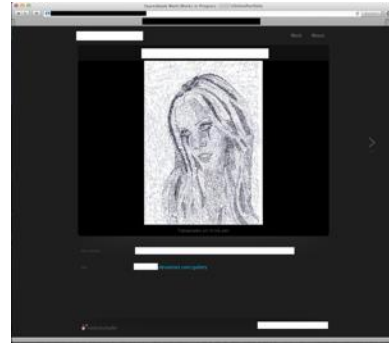


Figure 63. Screenshot of a "folder 1" page by "Melissa", 2013



Figure 64. Screenshot of a "folder 3" page by "Melissa", 2013

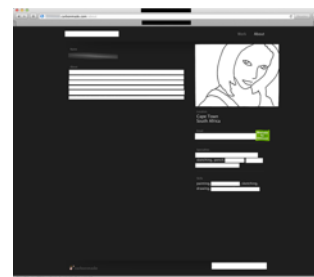


Figure 65. Screenshot of 'About' page by "Melissa", 2013



Figure 66. Screenshot of "Melissa's" portfolio's homepage on deviantart.com



Figure 67. Screenshot of comments on one of "Melissa's" gallery pages on deviantart.com

The drawing and painting medias that visual arts students learn at school are usually just a few of the many aesthetic styles available. Styles from popular culture include; stunning levels of detail, lush colors, intricate geometries, exaggerated gestures, impressive physiques, or dense combinations of texture and fantastic worlds filled with mythic creatures (Manifold, 2012). Aspirant manga artists are attracted to the genre for its complicated and dramatic stories that deal with diverse themes. These range from historical religious ones to contemporary cultural issues (Toku, 2001). Such diversity provides contextual and expressive freedom in narrative that its young creatives typically also find attractive.

Melissa used her relatively well-resourced and connected home environment to explore both informal aesthetic styles and Japanese popular culture. For example, she downloaded, 'all my manga and animé CDs from the Internet... and pictures.' (Interview with Melissa, 30 September 2013). She then burnt these videos onto CD for watching on television. Unlike many of her peers, she was already familiar with the online portfolio genre before the e-portfolio lessons. She visited 'DeviantArt way before Carbonmade'

(Interview with Melissa, 30 September 2013) that she found via Google searches, because ‘a lot of manga’ is on there (<https://www.deviantart.com/manga/whats-hot/>).

Like other late and post-adolescent youth who enter a phase of artistic revival (Read, 1958), Melissa’s e-portfolio was a playful exploration of a variety of forms and abstract styles tied to a general enthusiasm for visual self-expression (Gardner, 1980). In addition to listing her formal specialities, she listed ‘pointillism, Japanese calligraphy and typography art’. She added ‘adobe photoshop’ to her classroom skills. Melissa also researched manga, animé and animation artists’ online portfolios to find out how they did artwork digitally, ‘not just traditionally.’ She was keen to emulate their skills. She learnt Adobe Photoshop for its photo-editing features and AutoDesk 3D Studio Max and Blender to create animations.

Melissa’s e-portfolio style represented her informal personas in some of its choices (see Figures 62 to 64). Her portfolio’s tile reflected that she was a ‘Japanese freak’ through combining a Japanese expression with her nickname (Interview with Melissa, 30 September 2013). She did not usually use her ‘entire name’ for online publications as ‘usually someone completely different’ by her name ‘pops up’ (Email from Melissa, 2017). Instead, she used a ‘nickname/pseudonym’ for her overall online identity. This strategy is used by teenage creatives to represent an idea of self through personal affinities and also to prevent their physical/legal identities being linked to their online ones (Castro, 2014).

Melissa’s wide-ranging involvement in fan art was evidenced in both her curricular and informal artworks’ subject matter; these featured emo music culture (the band Evanscence’s lyrics), manga characters (‘Yugioh’ monsters), science fiction (half-human, half-machine characters) and fantasy (angels and vampires). After preparing her e-portfolio, she decided to use DeviantArt (see Figures 66 and 67) to overcome Carbonmade’s storage limitations and expose her work to a broader audience. The latter focus reflected the importance of recognition to fan artists involved in non-commercial productions. They also thrive on the dynamics of social connection, peer-based learning and participation (Ito, 2010) supported by certain online sites. In addition, some provide rewards and competitions that push contributors to improve their craft (Ito et al. 2010). These are effectively online visual culture learning communities (Freedman, Heijnen, Kallio-Tavin, Kárpáti & Papp, 2013) that learners use to increase their skills, often in “off-limits” art, such as animation. Melissa decided to open Behance.net and MyFolio.com portfolios after being emailed by these services. She also linked her e-portfolio to her DeviantArt one by adding active hyperlinks from each of her e-portfolio artwork pages.

Melissa was keen to be contacted for freelance work (Interview with Melissa, 30 September 2013) via her portfolios, but shared Dina’s concerns regarding potential harassment. To protect her privacy, Melissa used pseudonymous identities that were connected to her offline world, but her strategy had privacy flaws. Melissa featured her full name in her email address, making it easy to search for her online presences.

Developing new skills by replicating manga fan art helped stimulate her desire to develop an identity as an animator. While Melissa was not formally taught animation at school, she was able to do an extra-mural, three-day, animator’s workshop. Her three online portfolios supported Melissa’s desire to interact online with viewers, unlike Carbonmade. She used DeviantArt to give feedback to its audience’s comments and likes on her artworks. She also used a link from MyFolio.com to share images with her Facebook friends (Interview with Melissa, 30 September 2013). Such interactions are

important in supporting a fan artist's emerging internal and external sense of identity as a competent fan artist and stimulating the desire to become a 'framateur' (Manifold, 2009). He or she is a consummate fan artist, whose unique aesthetic approach distinguishes his or her fan art as original reproductions.

At both research sites, visual arts syllabi did not seem to accommodate common teenage interests, fan art or alternate aesthetics. Melissa had few, if any, formal opportunities to develop a fan artist persona. She voiced concern that Mrs. Zahra dismissed manga illustrations as not being valuable as academic cultural capital (Interview with Melissa, 30 September 2013). Melissa also shared concerns that her informal aesthetic practices were impinging on the legitimate classroom drawing style. Her manga drawing style became an undesirable influence on her observational drawings, which came, '*out in more a manga form*⁴⁸' than the realistic style she wanted.

Melissa's e-portfolio featured esoteric interests from her fandoms that enabled her to distance herself from her classmates. Just as embracing one popular narrative over another announced fandom affiliation, embracing one aesthetic style over another announced a fandom affiliation. Melissa's Japanese youth culture fandom announced identification with an exclusive aesthetic socio-cultural community. She participated in affinity spaces with fans and fan artists that preferred the animé and manga genres.

Melissa started studying Japanese online after matric, while working part-time at an events and promotions company. She hoped eventually to use a 'more fluent level of understanding' of Japanese manga to translate it into English for manga websites (Email from Melissa, 2017). In 2014, she created her own manga, drawing a few rough panels and has used Blender to 'play around with animation'. She had managed to build a 'good audience' of over 5,000 'animé/manga lovers' on Instagram by 2017, where she captioned manga images as online memes⁴⁹ for like-minded fans to share.

Melissa had overcome several obstacles at school and at home to pursue a role in online animé and manga fandom. She was not involved in the local scene, though. Fan artists typically make and publish their own animé materials for circulation in local fan-organised clubs and conventions (Ito, 2010). Although Melissa was sharing her fan productions online, she had yet to participate in local events, such as UCON animé-, Cape Town Comic- or FanCon Comic Conventions.

My next case study for Masibulele described a student whose enjoyment of the subject was mirrored in his e-portfolio style. However, his case also highlighted two important aspects of cultural exclusion. He only added an important out-of-school sense of himself as a fashion entrepreneur after being encouraged to do so in matric. He chose not to add

⁴⁸ The etymology of manga is 'whimsical drawings', being a characteristic of Japanese comic books. Its distinctive drawing style is an important genre foundation, although the genre is highly diverse with many styles. Animé is the short form of animation and has been recognized as any animation made in Japan (Chen, 2004). Many animé movies are adapted from manga and share its distinct visual style. The animé/manga fan community has grown steadily outside Japan since the 1970's.

⁴⁹ Internet memes are images with statements that are typically perceived as humorous pieces of culture (Börzsei, 2013). The concept of an online meme is derived from memes of knowledge and ideas that evolve (Dawkins, 2016), all being created by social systems. The online meme production process typically facilitates iterated and revised versions by other members in a particular social setting or community, thereby continuing the meme's conversation (Wiggins & Bowers, 2015).

mixed media, which he associated with traditional crafts and local South African cultural identities.

Masibulele- Aspirant designer and fashion entrepreneur

The only first-language isiXhosa speaker volunteer at the government school, Masibulele was a highly-motivated student. Keen to develop his digital information habitus, he was already sharing pictures of his creative work with peers via Facebook before the e-portfolio curriculum began. Although keen to showcase his creative productions, he did not remediate many due to digital infrastructure constraints. He uploaded only 14 images in total by the end of his matric year. While better-resourced than Nathan and Herschelle, Masibulele still faced serious constraints to his access and use of digital information infrastructure. He lived in the township of Khayelitsha, where his parents' home afforded minimal support for e-portfolio curation. His parents were not involved in his intense passion for art, nor did they see his e-portfolio. 'I wouldn't speak about it to them.' (Interview with Masibulele, 18 April 2013).

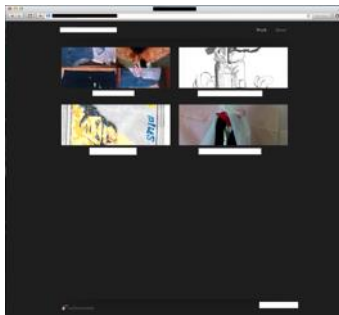


Figure 68. Screenshot of homepage by "Masibulele", 2013

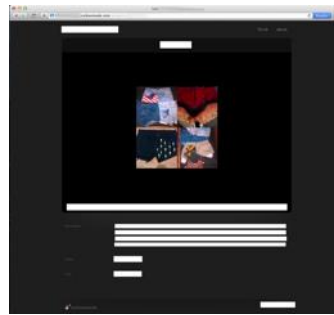


Figure 69. Screenshot of a "folder 1" page by "Masibulele", 2013



Figure 70. Screenshot of a "folder 2" page by "Masibulele", 2013

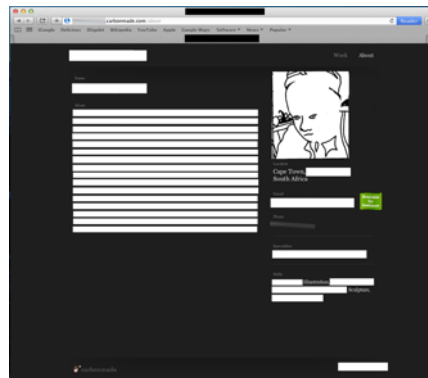


Figure 71. Screenshot of 'About' page by "Masibulele", 2013

Although he could access his parents' PC at home, it was not connected to the internet, as was typical in 2011 for most homes in Ward 94 (Statistics South Africa, 2012). Masibulele was relatively fortunate though to have internet access outside of limited school lab hours on his mobile phone. However, this was costly and often ran out before he had the cash to replenish it. He did not know how to upload remediated imagery to Carbonmade from his Blackberry mobile phone (Interview with Masibulele, 18 April 2013) and depended on e-portfolio lessons to do this. Uploads were slow, taking 'about five minutes for one piece'. He uploaded a maximum of five images in one lesson. Two of

the images in his e-portfolio were duplicates, but he chose not to delete them, due to the investment of time needed to replace them.

Like many other young people who had to overcome powerful obstacles in traveling outside their local areas to a distant school (Knight, 2015), Masibulele's experience of attending one provided him with greater opportunities than constraints. Masibulele was keenly involved in arts class and his initial e-portfolio style (see Figures 68 to 71) largely mirrored his enjoyment of its formal tasks: He described himself to be a 'young male artist' with a 'passion for drawing' and listed his specialties to be 'pencil work (illustrations and observations)' and skills that included 'Pencil Work, Illustration, Portrait Drawings' (Masibulele, 'About' page, 2012). Foregrounding these specialties reflected the pencil medium's use being foundational in the subject for anybody who 'started art' (Interview with Masibulele, 18 April 2013). Masibulele's homepage's folders were initially sequenced to prioritize the artwork done at his school: the first folder was for pencil sketches, the second for other medias and the third for sculpture. The first two folders contained images done in Mrs. Zahra's syllabus, while the third folder contained sculptural projects (Interview with Masibulele, 18 April 2013).

Masibulele's initial e-portfolio excluded his important out-of-school sense of himself as a fashion entrepreneur. As a music fan, he keenly followed the fashions of music stars in their videos, 'lots of' magazines and at local festivals and events. He first developed an interest in making fashion while being taken on jean shopping trips by his mother to Cape Town's major malls (Interview with Masibulele, 24 July, 2015). During one of these trips he realized that he could redesign a pair of jeans inexpensively to match those sold by exclusive retailers. His involvement in clothing production led him to start a small fashion business with a younger cousin in which Masibulele was 'Founder/producer/CEO'. It was a clothing line named 'SoiL' (an acronym of 'Style Over Intimate Levels'TM - See Figure 69). Together with his cousin he pooled R2,000 to seed this business (Interview with Masibulele, 22 July, 2015). They developed it by combining the cousin's financial skills with Masibulele's self-taught, handcrafted fashion talents. These were developed by following a process of trial-and-error in preparing patterns used to hand-sew denim shorts for young teenagers.

While Masibulele's 2011 e-portfolio shared formal projects, his profile page (see Figure 71) hinted at a broader entrepreneurial interest in art; 'I have the talent in most categories in the art industry' (Masibulele, 'About' page, 2013). He only added a fashion folder to his e-portfolio after an interview for this study encouraged him to feature this as extra-mural work. He had initially developed an understanding that translating his interests in fashion entrepreneurship would be inappropriate to express as a digital persona of a visual arts student. According to Bourdieusian theory this evidenced Masibulele's inculcation into the *nomos* and *illusio* of the visual arts subject. In other words, he excluded fashion as he perceived that this popular domain was not legitimated in the visual arts subject. Such a perception reflected an *élite* focus in the visual arts subject on creative autonomy in cultural fields of restricted, highbrow production.

The acknowledgement by a field's participants of its stakes and acquiring of interests and investments prescribed in it is termed social illusion, or *illusio* (Bourdieu, 1996). The stakes of reproducing the academic visual arts subject's *illusio* were high for Masibulele. He enjoyed a close relationship with Mrs. Zahra and was an achiever in the visual arts subject. However, he also enjoyed fashion and consumer culture. High school students in Durban and Johannesburg also viewed fashion and consumer culture to be important as

markers of status (Dolby, 2001). Such celebration may attest to the courage and commitment of black youths to not giving into the conditions of poverty and strife found in the township (Peterson, 2003).

Once he had decided to curate clothing designs in his e-portfolio, Masibulele documented them extensively with seven photographs in four images. These revealed his exceptional entrepreneurial flair in selling t-shirts, sweatshirts, sweat pants and 'booty' shorts (for women only). Masibulele spotlighted his fashion label by placing it at the most salient spot- the top folder of his homepage. He also showed great interest in providing e-portfolio annotations that described the work, its client and type. The former was in the register and address of a proud entrepreneur marketing his wares, with a hint of the conscious "awareness" that he valued ideologically: '[SoiL] is a Clothing Line for both male and females and in the mere future for Kids too. Established last year but recognised and made more aware this year February.' (Masibulele, SoiL folder pages, 2013).

Masibulele's clothing line evidenced the strong media influence of *Y Culture*, also known as Loxion Kulcha. Post-apartheid, black youths' interest in this alternative politics of style and accessorisation has superseded the focus in an earlier era on anti-apartheid politics (Nuttall, 2008). As a cultural form, *Y Culture* was developed originally by young people in a post-school context and was widely subscribed to within schools, particularly in Johannesburg, as a center of influence. After 1994, the city became a capital for emerging media enterprises as a wide range of radio stations, television talk shows and local soap operas went on air and magazines were founded (Nuttall, 2004). In South Africa, Generation Y became one defined by brand loyalty and the development of enterprising identities, similar to those of middle-class American youth (Demerath & Lynch, 2008). In fashion, *Y Culture* was an explicit reworking of globally popular, black American style formations. Masibulele's label evidenced both *Y Culture*'s entrepreneurial emphasis and sensibility through appropriating American designs into his township fashion label's style. He also described being inspired by popular music genres, such as kwaito and hip-hop, whose local performers are associated with the spirit of *Y Culture* (Schenk & Seekings, 2012).

Masibulele initially created a Facebook group for his clothing company as it was the 'easiest channel' to 'reach people'. It successfully attracted over 1,000 likes by 2015, before which SoiL marketing accounts were created on Twitter, Instagram and BBM. Masibulele's use of his leisure time and social networks for developing a fashion brand on a small scale resonated with another case in the literature for "Bongani", who formed "The Riot Squad" label with his friends (Venter & Walton, 2015). Masibulele and Bongani both hacked their own leisure time to acquaint themselves with the techniques and culture of the fashion profession. Masibulele and his cousin had long-term ambitions for SoiL; they planned to increase production by purchasing a textile printer, vinyl cutters and two sewing machines (Interview with Masibulele, 22 July, 2015). They wanted to develop its appeal for locals and foreigners and exhibit it at Cape Town's prestigious Design Indaba.

Masibulele used his e-portfolio to show people what else he did, besides 'being instructed to do at school.' In particular, he added some drawings that he produced in his spare time. A few drawings explored black identity, such as in his pencil sketch 'Black Beauty Feel' (see Figure 70). Masibulele drew in his spare and explored traditional themes 'to show my culture.' He sensed that the visual arts syllabus precluded traditional

methods in mixed media. He associated such works with traditional crafts and local South African cultural identities (Interview with Masibulele, 18 April 2013). These differed from the Western arts masters foregrounded in the syllabus. Like Them bani, Masibulele could have drawn on Xhosa cultural repertoires from home, but did not. Both isiXhosa students' exclusion of Xhosa crafts suggested that the visual arts syllabus could better address relationships between race, indigenous craft, contemporary art, decolonisation and artistic legitimisation.

The hegemony of whiteness, which is taken-for-granted in its unmarked character (Nayak, 1999), remains evidenced in assimilatory pressure that all students follow white norms in South African high schools. For example, in August 2016 young black women at Pretoria Girls high school protested against its racist institutional culture. In particular, they targeted racist policies regarding black African hair and languages. School policies framed blacks' natural hair as "exotic" or "untidy", requiring young women to chemically straighten their hair since Afro, braided or dreadlocked hairstyles were banned. Such policies point to the imposition of Eurocentric beauty standards as a norm (Ellington, 2014). Students' use of African languages was also tightly regulated at the school, which protestors said had 'little tolerance' for their home languages (Pather, 2016).

Such perceptions echoed the experiences of first-language Xhosa speakers in English Cape Town schools, who reported that speaking isiXhosa was not viewed as acceptable by some of their teachers (Soudien, 2001:2012). Unable to understand isiXhosa well, such teachers were suspicious of the language's use and prone to misinterpret it as being rude. Pupils at Sans Souci Girls' high school, supported by Westerford High School learners, launched a similar protest in Cape Town (Verasamy, 2016). Pretoria and Sans Souci Girls' high schools responded by rewriting their codes of conduct to accommodate the concerns that students and the DOE raised. Nonetheless, a ban on students choosing Afros, dreads and braided hairstyles remained in place in several schools (Govender, 2016).

Such examples of the cultural exclusion of indigenous languages and fashion are suggestive of ongoing cultural domination, whose nature is increasingly challenged in local schools. Masibulele's experience was linked to this fight in him having to confront the marginalization of black cultural repertoires and fashion as an emerging cultural capital at high school. By successfully leveraging media to launch a fashion design label and through being a good student, he was able to curate an e-portfolio that successfully supported his application for studying surface design at a local university.

By securing this position, Masibulele had overcome the many obstacles that stop mostly black Cape Town students from gaining access to visual creative studies that require portfolios. Many of his classmates and peers would not satisfy the academic prerequisites and the once-off costs of application plus the on-going study costs. However, Masibulele still faced challenges at home, since his parents wanted him to study architecture, not fashion design. SoiL was profitable and enabled Masibulele to contribute money to his parents' household economy's travel and electricity expenses. Nevertheless, he struggled to convince his parents that training to be a fashion buyer, for example, was a viable career choice. He ascribed this to his parents growing up, 'where you had to become educated to earn money' (Interview with Masibulele, 24 July, 2015). Unlike those less-privileged families that see creative-class careers as one of their few chances at upward social mobility (Ito, et al. 2010), Masibulele's parents reflected the view that a degree related to visual arts would not help a person to advance in the class

hierarchy. Such a view prefers a traditional, high status career with more stable and guaranteed financial rewards (Ito, et al. 2010). After working in retail full-time during 2015, Masibulele seized the opportunity to become a trainee fashion buyer at one of South Africa's most prestigious national retail chains. He continued to develop his own clothing label as a side project.

The next case study concerns Lesley Ann, who was unique in hiding her student identity. Her other public online identities informed her pseudonymous e-portfolio style. Like Masibulele, she was interested in informal cultural repertoires and also negotiated subject matter that reflected her interest in blackness. She spotlighted her informal productions as an illustrator, with her pen illustrations revealing her interests in pop culture. Coming from a financially disadvantaged home, she was highly resourceful in using her overall online personas to secure visibility for herself in the creative industry.

Lesley-Ann – A talented music performer and illustrator, but no student

Lesley-Ann grew up in her alcoholic grandfather's home on the Cape Flats and skateboarded to school from Crawford. A talented and resourceful student, her e-portfolio (see Figures 72 to 77) completely hid the prescribed digital disciplined identity. She foregrounded her eclectic fandom via her own illustrations. At the time of the study, she was already an emergent musical performer in Cape Town's local hip hop scene. She was experienced in enacting a public identity online, which strongly informed her e-portfolio strategy.

None of Lesley-Ann's digital self-presentation or portfolio organisation choices revealed that she was still at school. Her profile description did not mention this or her identity as a visual arts student. She did not publish any curricular artworks. Instead her e-portfolio foregrounded her musical alter-ego's name and her hip, informal creative persona as a portraitist interested in popular culture and black African identity. Such a persona slotted into the multi-talented artistic persona that her overall online identity strove to present.

After winning her first talent competition aged twelve, Lesley-Ann had joined two singing groups that performed across Cape Town. She was unusual amongst her classmates in already being recognized as an artist by wider networks. She also performed as a solo-artist at local concerts under a pseudonymous alter ego that combined her first name with a portmanteau. It reflected her interest in, 'black culture and everything' and standing for 'being unique and different' as her surname. Her development of this marketable alter-ego followed a prominent strategy of musical performers in those genres that she preferred to perform in. These were 'R&B, hip hop, soul, rap and reggae' ('Lesley-Anne's Facebook fan 'About' page, 2017). Lesley-Ann's musical tastes were strongly tied to black musical genres, reflecting how South African students' musical tastes are linked to collective, racialized identities (Dolby, 2001. Dawson, 2003).

She also believed that using an alter-ego would protect her privacy; she only shared her proper name with teachers and her closest friends. The use of an alter ego was intended to protect her from harassment by boys at school and other unwanted online audiences (Interview with Lesley-Ann, 25 April 2013). Like Dina, Lesley-Ann's privacy was potentially compromised through using her real first and last name as her profile page's

title. She also listed her date of birth in her Gmail address. After matric, Lesley-Ann's true name became easier to search for online after a tabloid reporter shared Lesley-Ann's name in a feature.



Figure 72. Screenshot of homepage by "Lesley-Ann", 2013



Figure 73. Screenshot of a "folder 1" page by "Lesley-Ann", 2013



Figure 74. Screenshot of a "folder 1" page by "Lesley-Ann", 2013

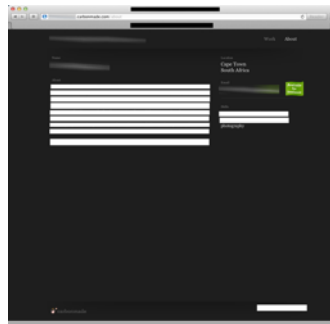


Figure 75. Screenshot of initial 'About' page by "Lesley-Ann", 2013

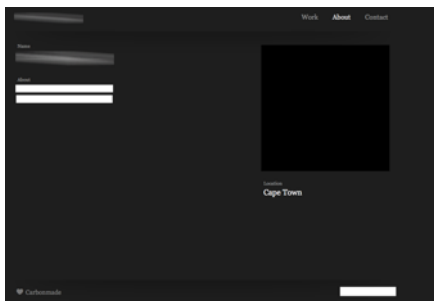


Figure 76. Screenshot of 'About' page by "Lesley-Ann", 2015

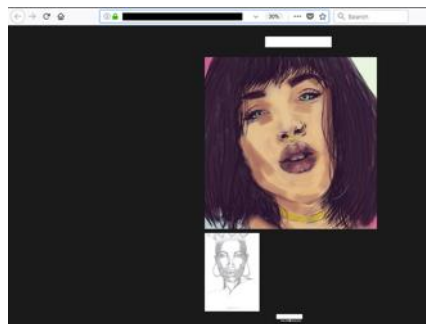


Figure 77. Screenshot of home page by "Lesley-Ann", 2017

Such an outcome resonated with the concerns boyd (2002) raised about the effectiveness of using separate accounts to gain control over the risks of a collapsed context. Searchable archives collapse situational context information, leaving users vulnerable since they cannot present themselves for a specific context. This risks their information being collapsed with other information (boyd, 2002, p.28). Users can create multiple accounts and associations, each with a role and facet of their identity. Lesley-Ann and Kyle followed such an approach as they developed overall online identities as creatives. Both accounts did not feature their legal names or other private information, which enabled them to foreground their creative context while protecting their privacy. However, this aim was undermined for both when reporters mentioned both their real names and creative pseudonyms.

The enactment of a public self is an important literacy (Papacharissi, 2010, p.248). Lesley-Ann evidenced hers by choosing the same pseudonym that she used for her alter-ego as

her e-portfolio's title. When presenting a public identity online, the convergent architecture of networked publics means that the individual must strive to present their identity coherently (Papacharissi, 2010). An individual's identity must make sense from different publics' perspectives, while he or she acts this identity out on different stages and in different modalities. Lesley-Ann sought to achieve this by developing a pseudonymous, multi-talented artistic persona across all her online presences. Operating under an alias is also a recognized strategy in the art world (Hansson, 2010). Lesley-Ann's use of the same alias in all her 'online publications' (Interview with Lesley-Ann, 25 April 2013) facilitated her strategic packaging and self-presentation online as a coherent artistic brand. Such a micro-celebrity practice (Marwick & boyd, 2011) is part of developing a fan-base by intimate disclosure that people use for 'amping up' their web popularity.

Recognition as an artist in a wider network supports this identity's full-realization (Norris, 2014) and Lesley-Ann had started to use social networks to represent herself as an emergent creative artist well before the e-portfolio syllabus. After being encouraged by her friends, Lesley-Ann created a public Facebook page using her alter ego to connect to fans of her music performances, as well as her song-writing and illustrations (Interview with Lesley-Ann, 25 April 2013). This page enabled her to receive feedback, for example on the fashion selfies she uploaded of herself and her illustrations (Lesley-Ann, Out of class e-portfolio questionnaire, 2012). She also used her page to follow other artists and to share her excitement about fashion, music and other popular culture. She experimented on other platforms, using her alter ego for an Instagram account and created a private Twitter account under a different pseudonym. During the e-portfolio syllabus she also used computer lab access during lunch breaks to create a blog using Blogger for sharing her poetry.

Under-resourced outside the visual arts studio, Lesley-Ann seldom had enough equipment, space or time to do arts (Lesley-Ann, Online portfolio questionnaire, 2012). She originally had access to a computer laptop at home, but this was sold, and she did not have a 'mobile phone at the moment' (Interview with Lesley-Ann, 25 April 2013). Despite being under-connected to the internet, Lesley-Ann still successfully developed an overall online persona as a talented signer and illustrator. Similar to black women's informed contributions to weblogs as audiences, authors and editors (Brock, Kvasny & Hales, 2010), Lesley-Ann's technical prowess supported her articulation of cultural capital to online audiences. She resourcefully worked around not having internet access, by using her school's computer lab during lunch breaks. She also had ready access to a computer and the internet at a friend's home, which unfortunately was located far from her own (Interview with Lesley-Ann, 25 April 2013).

Entrepreneurial, Lesley-Ann created informal fashion pieces and freelance illustrations for payment. She also designed matric dresses for friends and modified clothes with mono chrome tags (Lesley-Ann, Online portfolio questionnaire, 2012). She also produced portrait illustrations for clients (Interview with Lesley-Ann, 25 April 2013). Her enthusiasm to do creative work was evidenced in her e-portfolio, where she chose the 'Available for freelance' button and provided her email address for prospective clients to contact her.

Lesley-Ann volunteered for the e-portfolio curriculum as she believed it would be useful for supporting her entry into creative industry as an apprentice or after studies. In grade 10, she was considering applying to study fashion, fine art or illustration at a local

university (Lesley-Ann, Online portfolio questionnaire, 2012). Her underprivileged household (Interview with Zubeida, 2013) could not afford to sponsor her tertiary education. Her school assisted her with applying for a bursary to study advertising (Interview with Lesley-Ann, 25 April 2013).

Her e-portfolio's organisation was informed by her interest in pen portraiture, black African identity, fashion and popular culture informed. Her homepage (see Figure 72) featured one folder, which contained the thumbnail picture of a fashionable Ndebele woman with 'big earrings', 'huge tunnels in her ears' and 'a traditional hat' (Interview with Lesley-Ann, 25 April 2013). Lesley-Ann deliberately organized the artwork order in the folder to ensure that this image was on its homepage. The folder's title and all its artworks manifested her recent preference for pen drawing media. Four portraits were fan art illustrations: two reflected her interest in music through featuring the singers 'Grimes', an electronic musician, and Corinne Baily Day (see Figure 73), a jazz singer; one was an illustration of an assertive fashionista headed 'The Independent'; and an interest in skating was suggested through her portrait of Steve Godoy (see Figure 74), a tattoo artist and skater.

Lesley-Ann's diverse interests were also reflected in the collage of tastes that she used for her self-description. The influence of Facebook was evident in a description that resembled a social network style of identity expression (Paecther, 2013). It approximated the "like" functionality selections that are common to Facebook: 'I Love Art. Dance. Music. Spirituality. Colours. Diversity. Fashion. Poetry. Hippies. Outdoors. Exploring. Being Inspired :)' (Lesley-Ann, 'About' page, 2013).

At the end of the e-portfolio syllabus, Lesley-Ann did not believe that her e-portfolio showcased her versatility in visually creative production. She had wanted to publish artworks organized into themes, such as 'Fashion' and 'Skate Life' and to improve her portfolio's organisation (Interview with Lesley-Ann, 25 April 2013). Her limited access to digital infrastructure was particularly problematic for her when she lost the password to her first e-portfolio. She re-created it, but this caused her to fall behind in e-portfolio classes. In response to this constraint, she created a shorter profile (see Figure 76) than her initial one (see Figure 75) and focused on uploading artworks, publishing six.

After matric, Lesley-Ann continued to develop as a musical performer and illustrator: she was able to move closer to her goal of becoming an established artist by signing to a local music label. It produced her debut R&B ballad music single and YouTube video, which she also shared on her soundcloud.com account. She also grew her illustration portfolio online. Unlike many of her classmates, she continued to update her Carbonmade portfolio after school. She updated hers in 2015 (see Figure 77) with a new folder of fifteen colour illustrations drawn on a tablet using Autodesk's SketchbookPro application. She also offered to prepare unique profile pictures, album art or other imaginative artworks for potential clients via an illustrated ad on her Facebook fan page. Lesley-Ann's e-portfolio style was tied to her overall online identity as a multi-talented artist. Market-driven personas seemed distant from the highbrow culture and narrow repertoires foregrounded in the visual art syllabus. Rather, her fan art and fashion productions were closely tied to the digital hustle of emergent Cape Town creatives (Donner & Walton, 2013. Venter, 2014).

Summary of informal identities reflecting distinct opportunities

This chapter's case studies explored a range of visual arts students' negotiations of informal digital personas. The strong influence of concerted cultivation in the independent school and from privileged parents' homes was evident. The government school students' cases foregrounded entrepreneurial identities, which were linked to creative industry and took advantage of the networks they could access. Such a fundamental contrast reflected the strong, albeit not obvious, influence of capital in young people's development of visual creative capabilities and their self-presentation in e-portfolio styles and on social networks.

These seven teenagers' different opportunities for developing visual creative and other identities were strongly linked to their parents' class and the resources available at home. In similar social semiotic spaces, young people could be involved in very different practices and affluent teenagers could further combine privileges across different spaces. For example, Kyle and Gary developed skills as videographers to film and edit their own water sports videos and share these online. By adding e-portfolio links to their videography they not only evidenced their interest, focus of attention and creative intent (Kress, Charalampos, Jewitt & Ogborn, 2006), but also marked the high levels of capital needed for such produsage. A high volume of economic capital was needed to fund water sports and a costly personal media ecology. Kyle and Gary developed emerging cultural capital by developing skills outside formal schooling to film, edit and publish online videos in this sub-genre. They elevated their social capital by successfully connecting with fellow enthusiasts, who supported video production improvements.

Sharing such exclusive out-of-school media and sports practices might serve as an increased level of symbolic capital. This marked its authors' social distance from others to a far greater extent than excellent academic digital personas might. Students who reproduced a disciplined identity had to remediate from drawing and painting domains, where privilege would be marked by the types of media skills they developed (see Tables 27 and 28 in Chapter Four). By contrast, informal visual creative personas could involve more exclusive media skills, while also featuring elite lifestyles as subject matter. Each teenager with a relatively advanced digital hexis could additionally sample their influences and share links to their other portfolios for suggesting symbolic distinction.

Online access proved key for articulating digital disciplined identities as described in Chapter Five. Such access also proved important in the development of informal visual creative personas. Being able to explore portfolio services such as DeviantArt, Flickr, YouTube and Vimeo afforded teenagers increased creative autonomy. These sites enabled young people to participate in visually creative domains without necessarily being limited by educational gatekeepers or geographical restrictions. Just as Gary and Kyle used the internet for improving their surfing videos and sharing them, Melissa used her online access to learn about producing manga illustrations and animé animations sharing them in three other online portfolios. While Gary initiated a blog for his boarding house, Kyle used Flickr, Instagram and Tumblr to develop as pseudonymous identity as a freelance photographer. Kyle's online photographic and video portfolios came to serve as a creative CV in helping to secure freelance opportunities while he studied at university.

Young people's privileged or inadequate access to the internet and digital infrastructures might seem invisible to their e-portfolio viewers in not being explicitly defined.

However, inequalities in such access could heavily constrain under-resourced teenagers' participation in informal visual creative roles. Despite being keen to become creative industry professionals, students with poor internet access were dissatisfied with the e-portfolio styles they had achieved. Inadequate internet access prevented their satisfactory articulation of digital personas.

Another important obstacle that marginalized students faced lay in entrepreneurial identities seeming to be excluded from the visual arts syllabus as "illegitimate". Such market-driven identities in creative industry proved to be very important to Herschelle, Lesley-Ann and Masibulele, who were keen to earn money and prestige from their 'digital hustling'. This desire is similar to the aspirant graphic design students (Venter, 2014, 2016) and hip-hop artists (Schoon, 2014) from townships, who were involved in creative industry for social and economic capital. Students who negotiated the entrepreneurial roles linked to creative industry, craft or fandoms in their e-portfolio styles, voiced concerns that these did not seem to be appropriate for the visual arts. This was indicative of the gap between young people's informal visual creative repertoires and the constraints of permissible identities associated with the South African visual arts syllabus. Commercial creativity might seem anathema to the protagonists of concerted, highbrow cultivation that the visual arts subject foregrounded.

In addition to being less well-resourced at school, government school students also faced more constraints when negotiating informal visual creative personas as part of their e-portfolio curation. For example, Masibulele was initially reluctant to remediate his entrepreneurial fashion label's productions as he perceived that these were not legitimated in the visual arts subject. He did not remediate mixed media, isiXhosa crafts, which suggested the scope for decolonizing a visual arts subject that seemed too distant from local cultural practices. Much like Dina showed us (see Chapter Five), Lesley-Ann and Melissa also highlighted how young women faced challenges in not seeming able to represent their legal identities due to the experiences of sexual harassment.

The foregrounding of informal visual creative personas was likely to give young people an advantage in entering local creative industries. The case studies in Chapter Five and Six also evidenced the strong influence of legitimate cultural capital in the visual arts subject and on young people's academic and vocational ambitions. Despite strong interests in informal visual creative identities, Melissa, Gary and Masibulele were all encouraged to assimilate the legitimate cultural education afforded by Fine Arts (Melissa), the Humanities (Gary) and Architecture (Masibulele). Such examples suggested that middle class cultural capital continues to be consecrated and strengthened by the educational curriculum.

From a sociological viewpoint, the case studies for Melissa, Gary and Kyle suggested how young people's home advantages become reproduced, and even amplified, online. The elite nature of produsage was suggested by these students' use of media environments and spaces that were richly resourced. Each featured their informal projects as part of their e-portfolio styles and could eventually pursue their visual creative personas more extensively after matric. The best-resourced student, Kyle, enjoyed the fastest entry into visual creative industry. He became a freelance photographer and videographer at university. His case exemplified the importance of digital infrastructure, popular subject-matter and a well-curated photographic portfolio on networks for growing one's visibility. Kyle's account had achieved *instafame* (Marwick, 2015), a condition where one has a relatively great number of followers on Instagram. In South Africa, Kyle had

successfully raised his visibility on Instagram and was one of its most followed photographers. Such development of attention as a valued emerging cultural capital was positive for Kyle's rapid entry into creative industry. However, this also pointed to how well-resourced young people are advantaged as aspirant photographers in the contemporary photographic field. Its digitization and accelerated semogenesis (Johannessen & Boeriis, 2016) via social networks is most efficiently done at the highest quality with exclusive media resources. Affluent homes are able to support this and have the necessary cultural capital for concerted cultivation. Such support enables teenagers to deeply engage with informal roles.

By contrast, under-resourced young people often lacked such parental support. Poor internet access also placed them at a disadvantage in digital spaces, where they had very limited time to develop digital hexeis or to design other online content. For example, Herschelle was interested in photography and videography. However, he did not have internet access outside the e-portfolio lessons and could only share his neighborhood photography and photo-edits via his e-portfolio. He also faced a longer route to becoming a freelance photographer in creative industry.

While Melissa, Masibulele and Lesley-Ann were resourceful in making the most of their limited internet access and home resources, their case studies provide an interesting counter-point to better resourced examples in media studies or marketing literature: Melissa's level of engagement with Japanese fandoms at school seemed slight when compared to media studies cases for United States students from affluent, technology rich households. Such young people developed visual creative identities that drew on the infrastructural and cultural capital advantages of the information élite: These young people ranged from animé artists who parlayed their web comics hobbies into professional careers or (Ito et al. 2010) to those building their reputations at the center of the non-market animé music video editing scene (Ito, 2010).

As an aspirant fashion designer, Masibulele used a few social networks. While his Facebook page and BBM groups were helpful for promoting his clothing label, he did not use other networks that might have greater impact: Instagram and Pinterest have far greater engagement for fashion than Facebook (Mizobe, 2014) and both support innovation in fashion marketing and business growth (McCarthy, 2013). Masibulele also did not experiment with fashion blogging (Duffy and Hund, 2015) or the fashion business websites (Judie, 2015) that many female entrepreneurs have successfully used in South Africa. Lesley Ann also had limited internet access, but still managed to experiment with online services that are popular with aspirant music performers for self-branding (Khamis, Ang and Welling, 2016) and developing micro-celebrity, most notably via Instagram (Marwick, 2015) and Twitter (Marwick & boyd, 2011. Page, 2012). She did not use resource-intensive media, such as online videos that musicians use for branding themselves (Meier, 2016) or websites as an additional channel for promotion (Lieb, 2013).

These three entrepreneurial students and Herschelle's cases can be contrasted to better-resourced ones for spotlighting the importance of capital for supporting young people's opportunities to engage with emerging cultural capital. Such under-resourced teenagers not only had very different opportunities to access and engage with informal roles, but also to share related differentiating practices. Inequalities in internet access and digital infrastructures strongly shaped teenagers' e-portfolio styles and those they might experiment with and share as digital symbolic capital.

Chapter 7: Conclusions and Recommendations

Overview

This thesis has explored teenagers' achievements in reproducing digital disciplined identities and also spotlighted their very different accomplishments in developing and sharing informal visual creative personas. These very different creative appropriations of informal digital personas suggested very different achievements in cultural repertoires and/or leisure ones. Such contrasting attainments reflect important differences in the capabilities that young people developed through the dominant repertoires at school (see Chapter Four) or in other social contexts. Such differences were also linked to inequalities in the economic, cultural and social capital that young people could access and their divergent aims in developing symbolic capital.

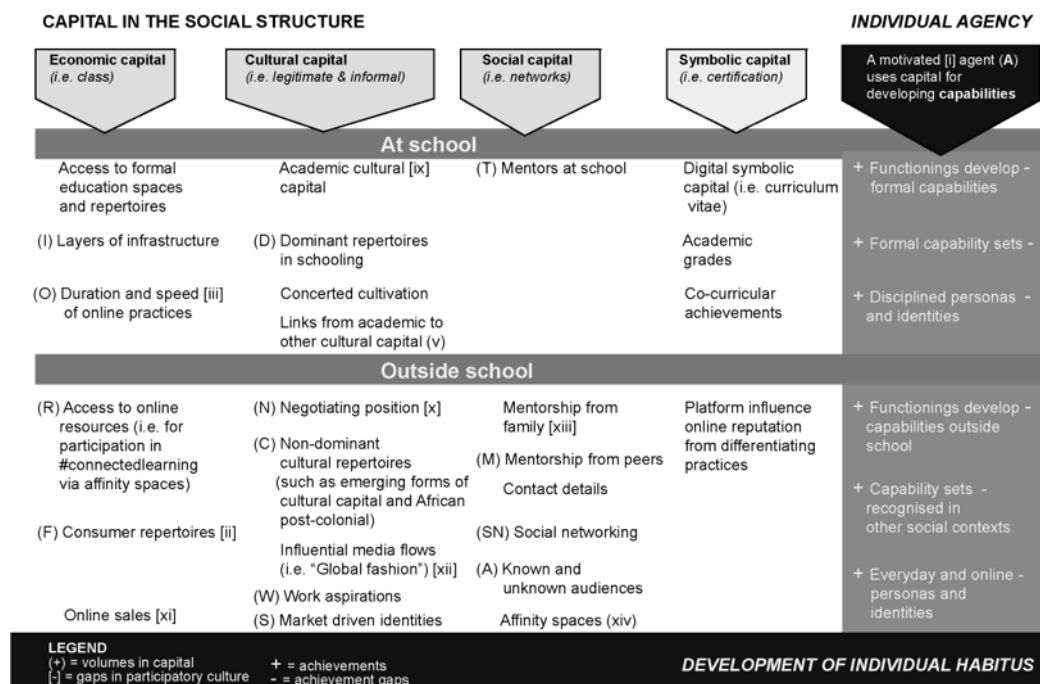


Figure 78. A Capital meets Capabilities framework for the creative appropriation of e-portfolios.

A Capital meets Capabilities framework (Noakes, Walton & Cronjé, 2018) illustrates capital's importance in young people's development of capabilities, which may be remediated as digital personas in e-portfolio styles (see Figure 78). This framework shows how young people's access to capital, or lack thereof, and their contrasting strategic aims were important for developing formal capability sets and those recognized in other social contexts. This framework contributes to media studies research by foregrounding how people who develop exclusive OCC capabilities and identities must leverage a complex combination of economic, cultural and social capital.

The different class, race and gender identities of teenagers proved highly influential in shaping their opportunities for using digital infrastructures and assimilating legitimate cultural capital. Likewise, teenagers had very different prospects to experiment with informal visual creative roles and negotiate cultural hierarchies in the visual arts. In

general, it was difficult for students' privacy to be protected and most female students chose not to use their real names for reducing the risks of sexual harassment. Young people's attainment of e-portfolio showcases and accompanying satisfaction was linked to their capital. In particular, students who were strongly motivated, but under-resourced, expressed disappointment that their digital personas did not reflect their capabilities. By contrast, a few young people from the better-off homes at either school used their advantages in informal resourcing to publish modally dense digitally disciplined and informal personas and to develop these ideas via affinity spaces. Likewise, the project's contrasting outcomes at the sites suggested how e-portfolio education may become a new marker of social distinction at wealthy schools that can afford to support sustained adoptions (Rogers, 2003).

This project's critical analysis, case studies and findings made an original contribution to the literature concerning creative production and inequality. This thesis connects questions of inequalities in material and technological resourcing to young people's identities and negotiations in OCC. Similarly, contemporary inequalities in cultural industries span production, participation and representation (Allen, Friedman, O'Brien & Saha, 2017).

In addition to its focus, the project was unusual in several respects: Longitudinal research at very different sites is rare in education and media studies. Action research that supports the bridging of subject silos and enables young people to use varied infrastructures for presenting online identities is likewise exceptional. My four-year action research project at two schools taught 29 teenagers to present digital disciplined identities. The e-portfolio syllabus bridged the subject silos of IT and the visual arts, giving youth the formal opportunity to develop digital personas. Teenagers could remediate identities from very different environments using a range of infrastructures, which necessitated a novel content analysis and research method.

This chapter provides an overview of its contributions to the literature, research claims and findings. It identifies some novel benefits of the project's e-portfolio syllabus. The research contributions to sociology, symbolic interactionism, social semiotics and digital materialism are then summarized. The chapter concludes with ideas for future research and a brief summary.

Overview of key contributions, claims and findings

Contributing to closing research gaps

Three important gaps became apparent during Chapter Two's literature review. The first concerned visual art students' e-portfolios and the second students' curation of digital disciplined identities online. The third was how young people's out-of-school circumstances influenced their involvement with informal repertoires and the associated negotiation of these as e-portfolio personas.

Through exploring its research questions, my project made contributions to closing specific gaps in cultural sociology, symbolic interactionism, social semiotics and media studies. The sociological contribution described how adolescents' digital personas are influenced by inequality. A description of how each students' personas changed over time reflecting contrasting impression management yielded the symbolic interactionist input. A social semiotic addition was made through a novel content analysis method that contrasted young people's e-portfolio identity performances.

Contributing to sociological research

This project revealed how youths' digital personas mirrored inequalities between two very different secondary schools and their students. Their digital personas serve as a new site of social distinction and potential cultural mobility. I also identified novel dangers in digital self-presentation, such as missing social information (Noakes, 2018a).

Contributing to symbolic interactionism research

An opening existed to contribute to symbolic interactionism concerning digital self-presentation management by visual arts students. This included their contrasting negotiations and longitudinal surfacing of digital identities, as well as the influence of unequal access and use of digital infrastructures.

Cape Town students' practices in response to the e-portfolio syllabus supported the description of related OCC practices. It was a chance to describe the changes to digital personas that students made over three years at the independent school and for two years at the government school. While there are several examples of researchers studying digitised portfolios of visual arts students (Miesels & Steele, 1991; Sefton-Green, 1999; Maxwell, 2003; Blaikie, Schnau & Steers, 2004; Lim & Sing Chai, 2004; Brown & Dillon, 2006; Lu, 2007), these did not last longer than a year. By describing students' choices for up to three years, my research made a novel contribution on how changes in young people's motivation led to transformed self-impression management strategies and e-portfolio styles. My research participants also had the opportunity to remediate projects from varied social semiotic spaces. This provided a novel prospect for describing how technological and material inequalities become manifested in students' e-portfolio styles.

Contributing to social semiotics research

Although basic discussions about learning and technology should explicitly include questions about identity as an integral part of the discussion (Ching & Foley, 2012), there are few examples of this in social semiotic research. My research made a unique contribution by describing how students curated digitally disciplined and other personas or avoided making identity performances in their e-portfolios.

The formal use of many types of portfolio genres has been researched. These include for: careers (Collin, 2011); academic writing (Russell, 2002; Valdez, 2010; Trevitt & Stocks, 2011; Romova & Andrew, 2011); professional doctorates (Maxwell, 2003); English (Raines, 1996; Rincón Velandia & Cuesta, 2010) and 'world wide web' writing (Watkins, 1996); engineering (Williams, 2002; Lappenbusch & Turns, 2007); and teaching by educators (Granberg, 2010) and student teachers (Takona, 2003). While professional (career- and work-related) digital personas have been widely researched, few scholars have explored how such "professional" self-presentations emerge in teenagers' disciplinary ones. Local researchers have investigated first-year Cultural Studies university students use of digital personas (Brown, Czerniewicz & Noakes, 2016), but little is known about this at secondary school level.

Research contributions related to the four key dimensions of inequality

Most media studies research projects are situated in well-resourced, extra-mural contexts. Researchers who promote Connected Learning (2013), Participatory (Jenkins, 2006) and Maker cultures (Gauntlett, 2011) describe such settings as advantageous in enabling learners to be involved in creative productions that follow self-directed interests. These researchers argue that such learning can result in improved social trajectories outside the narrow range afforded by formal schooling. Globally, researchers have shown how young people are able to leverage digital media and networks, later

turning their online interests into careers (Ito et al. 2010). But shifting participation in this way from social sharing to fan activities to professional involvement is not a trivial matter, particularly for young people without easy access to either digital infrastructure, or the requisite economic and cultural capital of the middle and upper classes (Bourdieu, 1984).

In South Africa, the scarcity of access to economic and cultural capital has precluded the vast majority of its young people from being participants in such programs. As select case studies in my thesis show, under-resourced teenagers confront many obstacles to creative participation and may be completely reliant on the formal resources and opportunities their school offers. My research shows how students curating their digital personas in deprived settings must work around constraints. I have argued elsewhere (Walton, Noakes, Venter & Cronjé, 2014) that such contexts are neglected foci for researchers.

Teenagers' expression of distinctive e-portfolio styles, whether foregrounding legitimate or informal repertoires, was strongly linked to their privileged access to capital (Bourdieu, 1986). My research makes an original contribution to media studies and cultural sociology by linking young Cape Town students' e-portfolio styles to four key dimensions of inequality. These were: Teenagers' access to ICT infrastructure (especially the internet) and digital media tools differed widely and this strongly shaped students' curations of digital personas. Young people also had very different opportunities to experiment with informal creative roles and to negotiate these as forms of valued cultural capital for art. The modern view of distinction that is predominantly reproduced in the visual arts subject seemed disconnected from the cultural capital in many students' homes. This placed marginalised students at the biggest disadvantage when negotiating "illegitimate" repertoires from home. There were also important differences related to gender in young people's negotiations of privacy concerns.

1. Socio-economic class and access to digital infrastructure

The socio-economic class of teenagers' parents was important for shaping the different opportunities that their children had in using digital infrastructure at school and home. The participants' opportunities to access the internet for curating their e-portfolios and related practices differed greatly. Users with "free" internet enjoyed a home advantage over mobile-primary users, who in turn were better off than those constrained to only accessing the internet during e-portfolio lessons. Teenagers' internet use strongly influenced their development of a digital hexis for e-portfolio curation and achievements with filling in digital personas.

In multimodal theory, there is a gap in the literature concerning the different digital infrastructures used by students for e-portfolio curation. Few multimodal studies exist that have addressed the importance of the material context in self-presentation and teenagers' use of diverse medias for productions that span varied genres of visual culture. My research makes an important contribution to multimodal and media studies research by highlighting that resource-intensive communications may not accurately reflect students' communication intent and abilities. Not all students' e-portfolios emerged as the coherent, fully designed and realised uses of meaning-making resources foreseen by some semiotic theorists, which resonated with Potter's findings for children's' video representations (2012). Under-resourced teenagers expressed their dissatisfaction with e-portfolios that did not properly represent their visual creative abilities. Low modality in e-portfolio styles often manifested the infrastructural paucity of teenagers' heavily

constrained internet access, reflecting the novel dangers of missing social information and disidentifiers (Noakes, 2018).

2. Access to the internet for exploring informal personas

Students who were well-connected to the internet also benefitted from using online resources to research affinity groups and experiment with presumption and even produsage. There are important gaps in multimodal theory concerning linking enablers and constraints in young creatives' productions to their capital. My thesis contributed to closing this gap with its novel content analysis and case studies. Both explored how teenagers' e-portfolio achievements reflected capabilities and dispositions developed in varied social semiotic spaces, which necessitated particular capitals for developing specific repertoires and capabilities (see Figure 78). Those teenagers who enjoyed "free" home internet access could leverage their economically better-off settings to experiment with a wider range of informal personas and to a deeper degree. Kyle's visual creative capabilities included informal repertoires in photography and design that approximated professionals' high production standards.

3. Opportunities to negotiate academic and emerging cultural capital

Youth had very different opportunities to negotiate visual arts student personas and other creative or leisure repertoires that teenagers valued. Students with the historic characteristics of privilege (white, middle class and male) seemed advantaged by coming from home environments whose cultural capital closely corresponded to their school's norms. These students were better positioned to negotiate their classroom identities and other personas. Cultural capital acquired in their homes, such as media production skills and exclusive sports, resonated with the broader ethos of school in its class and cultural dimensions. Teens from middle class homes also benefited from their privileged families' promotion of concerted cultivation (Lareu, 2003) in the arts.

By contrast, students from blue-collar homes at the government school faced strong assimilatory challenges in curating informal identities that did not dovetail with those taught at school. The cultural repertoires and registers valued in their homes seemed not to be prized at school as "legitimate" cultural capital. For example, the visual arts subject's predominantly Modernist framework and canonical focus on highbrow Art precluded certain craft, youth culture and fan art productions.

Multimodal analysis enabled the complexity of individual students' semiotic choices to be reflected and linked to students' varied interests and dispositions. However, in a highly prescriptive formal context, its conception of the sign-maker is worthy of critique in being overly individualistic. This was evident in the examples of visual arts students who responded to rigid teaching by exercising agency to produce digital disciplined identities. The e-portfolio styles that compliant students produced reflected their interests as sign-makers in complying with the assessment strategies of their educator. Heterodox, individualistic creations would be expected of sign-makers who draw on their disparate interests. By contrast, the correspondence evident in many students' "creative" curations drew on a shared classroom context in which compliance with their educator's disciplinary interests resulted in symbolic rewards⁵⁰.

⁵⁰ This was evident in independent student feedback concerning the visual arts syllabus. Five students expressed the desire for more say in their syllabus and more of an opportunity for it to reflect their interests. For example, a student wrote, 'I don't like that the syllabus doesn't provide much space for you own expression and creativity. It is very set in its tasks.' (Online portfolio questionnaire feedback, 2010).

Understanding how young people used online portfolios to bridge to post-school opportunities was also important. As described in Chapter One, Cape Town universities increasingly require that digital portfolios be submitted as part of assessment for admission. However, not much is known locally about the use of online portfolios during such assessment. Likewise, there is a research gap concerning how young visual creatives in Cape Town use online portfolios for justifying freelance online gig work⁵¹ or in securing part-time or permanent work. My exploration of young people's informal e-portfolio styles and linked sites contributed to our understanding of how young creatives use digital personas as part of concerted cultivation or for market-driven creativity.

4. Using one's real name as a gendered privilege

Using one's real name in an e-portfolio emerged as a gendered privilege that young males mostly could accomplish. Almost all young women chose pseudonyms to reduce risks associated with online visibility. By contrast, no young men described needing to adopt a pseudonymous identity for preventing sexual, or other, forms of harassment. Overall, it proved very difficult to protect students' privacy during the e-portfolio lessons as its privacy guidelines proved ineffective for the e-portfolio as a public genre.

Evidence for four key dimensions of inequality

1. Opportunities for internet access shaped digital hexeis and modal densities

Chapter Four's content analysis of e-portfolio styles at the two different schools identified that there were distinctive patterns in their students' achievements. Unsurprisingly, the particular patterns at each site were interrelated to the visual art educator's teaching focus and the level of infrastructural support available for students. In addition, many of the research participants enjoyed better digital infrastructures at home than at school. The case studies (Chapters Five and Six) suggested how those students with mobile-centric or home internet broadband connectivity enjoyed digital self-presentation advantages over those without either.

Resource intensive communications proved gatekeepers to under-resourced students and stopped them from fully articulating their abilities. Teens with no internet access outside class had to develop digital personas during e-portfolio lessons. The development of online personas resembles a digital hexis (Georges, 2007) with the user defining his or her scheme of self-representation online. Such representations are transformed like a body fashioned by habit or by repetitive practice. As introduced in Chapter Two, the notion of a digital hexis is analogous to the articulation of meaning and shaping of the body. In the e-portfolio curriculum, each student developed theirs through establishing a templated self via Carbonmade. Students who could not connect to the internet outside class had the most limited exposure to developing a digital hexis, which resulted in Nathan's struggle to provide details and his less polished portfolio.

Lesley-Ann and Masibulele's cases revealed the importance of mobile-primary internet users (Donner & Gitau, 2009. Donner, Gitau & Marsden, 2011), who could readily improvise workarounds to address slow classroom internet. Such users could access the internet as a resource for exploring affinity groups and sharing their work. Nevertheless, mobile-centric usage was limiting, since these students had to carefully manage their airtime. Accessing image-heavy online services, such as Carbonmade, posed problems for

⁵¹ Online gig work is paid work that is allocated and delivered by way of internet platforms without an explicit or implicit contract for long term employment (Graham, Lehtonvirta, Wood, Barnard, Hjorth & Peter Simon, 2017).

mobile-centric students in rapidly draining their airtime and conflicting with everyday priorities, such as phone calls and text messaging.

The highest level of autonomy online was enjoyed by students from technology-rich households with “free” home internet. Dina, Melissa and most independent school students were in this privileged group who did not describe the spatial, temporal, and access constraints that others did. Home internet users could enjoy this as a leisure service, enjoying a ‘distance from necessity’ (Bourdieu, 1979) with online practices being at no cost to themselves. In this context, web surfing sessions fell into the category of a gratuitous game {or skholé (Bourdieu, 1994)} in which students could play seriously (Robinson, 2014). Divorced from urgency, these users develop the playful or exploratory digital information habituses that are associated with positive dispositions and skill development for global information seeking (Robinson, 2009, p.504). Young people benefited from such ‘studious leisure’ (Bourdieu, 1994) in studying the cultural capital that they valued. Many used varied social networks (see Tables 32 and 33 in Chapter Four) for exploring informal visual creative repertoires (see Tables 17 and 18 and section F. in the Appendix). In Melissa’s case, she used her infrastructural home advantage to pursue her fandom of manga and animé. She created three additional portfolios, to further her interest in becoming an animator (see Table 33 in Chapter 4). Young members of the information élite accessed the digital information infrastructures needed for developing exclusive repertoires. In Gary and Kyle’s cases, they readily explored the exclusive roles of water sports video editing and shared such interests on varied social networks (see Table 32 in Chapter 4).

2. Class and students’ different connections with the visual arts

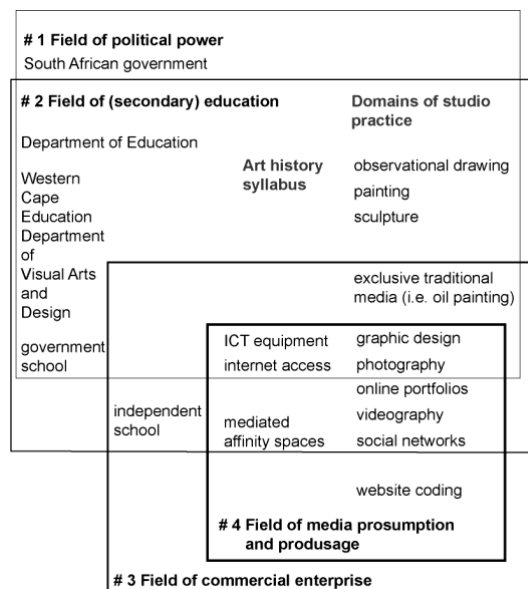


Figure 79 Four fields that could shape the visual creative practices of my participants

As discussed in Chapter Two, the Modern version of highbrow distinction strongly informs South Africa’s visual arts syllabus. It also proved highly influential in our e-portfolio guidelines: young people were expected to foreground their classroom observational drawing and painting repertoires. As described in Chapter Two, visual arts students’ repertoires are strongly guided by the fields of power and education (see Figure 78). At both sites, visual arts educators impressed on students the importance of achieving good grades for this subject if they wanted to enter tertiary studies in visual

culture. Students' achievement in matric was also important for both educators; Mr. Proudfoot's job security depended on having sufficient students and his matric students attaining good results overall (Interview with Mr. Proudfoot, 2012). Mrs. Zahra viewed an important outcome of her teaching to be enabling her brightest students to be competitive for academic bursaries (Interview with Mrs. Zahra, 2012).

To achieve high visual arts grades, students were expected to learn about Western fine arts history and exhibit related skills. Students were not taught to question the invisible Modern hierarchy behind such education's framing of 'real art'. Nor were they asked to compare this hierarchy to other ones in visual culture, such as contemporary art and graphic design.

At the independent school, a class based preference for the exclusivity of the fine arts was well supported by Mr. Proudfoot's lessons. He emphasised that his students should develop strong disciplinary foundations and his teaching supported their development of an arts master's identity. Such an expectation differed from Mrs. Zahra's focus in her class, who followed a less prescriptive ethos. She used art as a therapeutic tool for students to reflect on social anxieties, such as violence. This approach recognised the challenges that her students faced in having relatively few opportunities to develop connections with visual art galleries and events. All students relied on the government school to provide this connection. The high transport costs involved meant such gallery visits were rare, though. Mrs. Zahra's approach responded to the reality of many students from poor neighbourhoods. These adolescents often grow up in unstable family environments and on streets where physical violence is commonplace (Schenk & Seekings, 2012).

The class positions of the research participants provided very different opportunities for them to connect with the visual arts student identity. In particular, students' extra-mural opportunities to become involved in fine arts culture differed widely between their schools. This reflected the visual arts field's status as the most exclusive in the areas of cultural practice, more so than media, music or sports (Bennett et al. 2009). There is a marked social division in relation to visual arts institutions as fewer people can claim connections to its institutions than those in other cultural fields. Visits to arts galleries and museums are a minority pursuit, most common amongst the highly educated middle class and social élite. Their children are advantaged in being disproportionately likely to develop a knowledge and appreciation for the highbrow practices that the visual arts subject foregrounds as legitimate cultural capital.

3. Teenagers negotiated informal personas from unequal positions

Young people's assimilation of the visual arts student identity was strongly shaped by privilege or privation linked to their class and race. Likewise, teenagers had very different opportunities in their e-portfolio styles for negotiating the repertoires they might value the most. At both sites, students were discouraged from foregrounding visual creative interests that differed from their arts studio repertoires. Their arts teachers seemed disinterested in their students' wide-ranging practices in fan art, craft or creative industry. Teachers seldom afforded opportunities for students to explore such repertoires. A few teenagers' grades were penalised for including these, such as computer gaming. Formal repertoires were strongly represented in students' e-portfolios.

At both sites, many students also chose to add other visual creative and leisure repertoires (see Tables 21 and 22 in Chapter Four). Independent school students typically drew on repertoires from roles at school, as fans, as sportsmen and as media producers

(see Tables 15, 17 and 19 in Chapter Four). While the government school shared a wider range of informal roles in visual culture, few described being involved in the richly-resourced domains of graphic design, photography and photo-editing (see Table 18). Few volunteers mentioned being music or sport fans or players (see Tables 20 in Chapter Four). Privileged youths could most readily curate from leisure repertoires that spanned visually creative-, music-, sporting- and tourist pastimes. By listing elite tastes and showing exclusive leisure practices, young people could mark their privilege.

Students' informal visual creative repertoires were strongly shaped by the fields of commerce and prosumption/produsage (see Figure 78) and the cultural capital available in their homes. Kyle and Gary developed interests that dovetailed with their parents' involvement in Cape Town's film industry. Less well-resourced peers, such as Herschelle, shared affect for video-editing with professional software, but his family could not provide guidance or support for such costly media repertoires. As expensive digital infrastructures proved to be gatekeepers to the development of certain media roles, under-resourced students could not participate in as many informal roles as their classmates. This deficit would put them at a slight disadvantage in presenting themselves as multi-platform creatives, since their e-portfolio styles did not combine many roles. Poor students' opportunities to research informal visual creative roles and for trying out prosumption or produsage in online spaces was scarce, at best.

Young people also had very different opportunities to negotiate the inclusion of informal personas in e-portfolio styles. Male teens from affluent homes were best positioned to negotiate their classroom identities, as well as entrepreneurial and other personas. Cultural capital acquired in their homes, such as skills in media production spaces, needed to resonate with the broader ethos of school in its class and cultural dimensions. While well-to-do students' cultural repertoires often dovetailed with the institutional culture of their schools, the repertoires from blue-collar homes did so only occasionally. Government school students from working class homes faced strong assimilatory challenges in curating informal identities. The cultural repertoires and registers valued in their homes were unlikely to be prized at their school.

Assimilationist assumptions in schooling precluded certain creative industry, craft and fan art productions. Educational systems are typically conservative and tend to legitimize and maintain pre-existing social differences. South African schools predominantly value middle class and Western repertoires. Although individual teachers might value diversity, the national syllabus' overall message is conformity with the highbrow cultural norms entrenched by schooling. In the case of secondary school visual arts, the research participants were strongly encouraged to develop cultural repertoires in the observational drawing, painting and gallery exhibition traditions. The syllabus largely reinforced Modernist distinctions between canonical highbrow art and neglected or excluded other repertoires in visual culture as lowbrow, therefore "not Art".

This meant that some students needed special encouragement from me to share their informal creations, such as Masibulele and his fashion designer's streetwear label. He also expressed curatorial concerns about the suitability of adding his multimedia artworks that drew on Xhosa aesthetic traditions for exhibition as art. He did not add these, despite encouragement. At both sites, first-language isiXhosa speaking students were in the minority and were not assisted with asserting cultural identities from their homes. Xhosa teenagers could also face self-presentation challenges when describing themselves in a second language.

Another area of exclusion related to the visual arts syllabus' non-market ethic, which seemed to preclude a discussion of marketing activities in the syllabus. Many of my research participants did not describe economic gain to be an immediate aim of their creativity. However, creative market activity and entrepreneurship (Ito et al. 2010) were particularly important to Masibulele and Lesley-Ann. Both faced financial pressures at home, unlike their peers from better-off families. Both students were strongly motivated by economic gain and had been using social networks to develop entrepreneurial personas (as a fashion brand owner and music performer, respectively) well-before doing the e-portfolio syllabus.

4. Protecting student privacy was difficult and most young women did not use real names

Two key challenges emerged in young people's negotiations of privacy concerns versus the benefits of online visibility. Firstly, it was very difficult to protect students' privacy online. Secondly, all but one female student chose pseudonyms for protecting themselves from potential sexual harassment. Both the researcher and educators were very concerned with the risks that unwanted audiences, such as paedophiles, could pose in using the e-portfolio to contact our research participants. This resulted in students being taught to take steps to protect their privacy, such as only providing general information about their school and not providing it or their home contact details.

However, early guidelines that young people not provide their contact details conflicted with the communicative practices typically associated with the e-portfolio as an electronic public genre (Bazerman, 2002). Entrepreneurial students wanted to reach desirable audiences for freelance work, which necessitated that these students provide contact details. Carbonmade did not support communications to its portfolio creators via their sites during my fieldwork⁵². Many students showed that they were available for freelance and several listed their contact details.

The privacy guidelines in the e-portfolio syllabus also proved inadequate for protecting young people from stalkers. Online stalkers could have easily targeted student profiles, where their use of full names in their e-portfolio would make it easy to search for teenagers' public profiles with contact details on social networks. Hiding their school's identity by concealing its name proved fruitless when students shared their school email address or showed distinctive school sites and/or readily identifiable uniforms. The educators and I could not monitor students' compliance on an on-going basis and asking non-compliant students to make changes proved futile in a few cases.

While almost all independent school students chose to represent their real names, most at the government school used nicknames, initials, chat names or pseudonyms. No male participants described having to hide their real names, but most young women did not display their full names. Lesley-Ann and Melissa used pseudonyms as an online strategy to prevent sexual harassment by undesirable audiences. Such privacy protection measures were likely to place young women at a symbolic disadvantage, since their e-portfolios would also become harder to find by desirable audiences, such as friends and family.

⁵² Another challenge in securing student privacy emerged after our fieldwork; Carbonmade added a contact form page to all users' profiles. Viewers can now contact Carbonmade users directly via an email form on their portfolio.

Novel e-portfolio benefits

As discussed in Chapter One, research in well-resourced contexts shows many benefits of e-portfolio use (Owen, 2009). Such studies have shown the outcomes of adopting e-portfolios in well-resourced tertiary or professional education environments. The markedly different context of this project has revealed other important potential outcomes. Supporting the creative appropriation of online portfolio software overcame some of the challenges to research into e-portfolios at secondary schools (Barret, 2011) and identified new benefits:

Mr. Proudfoot believed that the e-portfolio afforded a visualisation tool to easily view a student's body of work. Supporting students to develop competencies in the important activity of digital curation (Mihailidis & Cohen, 2013) resulted in important benefits for them, their parents and Mr. Proudfoot. For the first time, he had an easy-to-access, holistic view of his learners' artistic progress, which allowed him to learn more about each learner simply by viewing a creative profile (Griffith & Liyanage, 2008). Such visualization was not available for the physical portfolio, which is often stowed away. Mr. Proudfoot used the shared informal interests from students' e-portfolio styles to create more personalised curricula (Buckley, Hasen & Ainley, 2004). Mr. Proudfoot believed that learners could gain a better understanding of how the visual arts syllabus fitted together as a whole and could better track their progress to the end-of-year exhibition. He also benefitted from being able to send a link to parents for their son's e-portfolio, which helped with grade validation. He could also refer to e-portfolio archives to detect 'recycled' artworks and identify sources of student plagiarism.

Many students gave feedback that viewing the Carbonmade portfolios of creative professionals was helpful in exposing them to a wider range of visual creative domains than they had been formally exposed to. This resonated with research that encourages educators to show learners the breadth and depth of genres within a discipline (Russell, 2002) and to explore their relationships across disciplines.

In developing the e-portfolio syllabus with Mr. Proudfoot, an educator-focussed rationale also emerged: As he was exposed to technologies, such as online portfolio software and related social bookmarking services, he learnt about the opportunities that contemporary technologies might offer to his teaching. Unlike many of the educators at his school (Name of author withheld due to PhD ethical requirements, 2010), he came to appreciate the teaching possibilities that online services and his school's one laptop per learner policy supported.

Future research recommendations

This thesis hopes to serve as a roadmap for researchers interested in exploring young Cape Town creative's digital personas, strategies and circumstances. As a pathfinder project, mine showed how inequalities in such young peoples' digital curations can be studied by combining insights from important writers in the theoretical fields of sociology, symbolic interactionism and social semiotics.

Much remains to be explored by future research. In particular, researchers could address three important areas in the literature related to visual art e-portfolios. These gaps comprise e-portfolio teaching, appropriation in under-resourced schools, how individuals' e-portfolios change after school and bridge to diverse opportunities:

While my project explored influences on e-portfolio styles, it did not focus on teaching. This may be an important area for future research given the important role educators can play in assisting students' digital curations. Such research could describe the actions educators take in their e-portfolio syllabi and explore related outcomes. Researchers could also find out what baseline infrastructure and support from key stakeholders is necessary for schools' sustained adoptions of visual arts e-portfolio syllabi.

My action research project took place in two schools, which were unusual in having sufficient digital infrastructure to support visual arts e-portfolio curation. Similar research could be conducted at the less well-resourced secondary school settings that are more common (Motala et al. 2007, Equal Education, 2012, 2014). For example, research at township or rural high schools and after-school clubs could explore the online portfolios that teenagers already use and how our preliminary e-portfolio syllabus might be adapted for accommodating such portfolios.

Another important gap concerns longitudinal research into how teenagers' e-portfolios styles change as they transition into new contexts. For example, it would have been interesting to follow how my research participants digital portfolios changed as they transitioned into post-school hobbies, tertiary education or working roles. It may also be helpful to research how young adults' digital personas played a role in assisting their social trajectories, or not.

Young adults' e-portfolios may have a range of impact beyond their direct connection to academic assessment. There are indirect connections to self-marketing and creative industry that extend deeper into society. It would be interesting to research the links between what makes young people successful designers of e-portfolios and how that translates to other online platforms, where they may achieve high visibility and status. There is scope to explore the complicated nexus between class capital and how young creatives may be leveraging digital symbolic advantages via self-presentation strategies. Such research could explore how this links to personal branding and the accelerated semogenesis of produsage, as well as those who are excluded or otherwise disadvantaged.

Contributing novel research on visual arts e-portfolios

Three major gaps were identified in the research literature, which concerned students' visual arts e-portfolio curations and teenagers' disciplinary versus informal personas. My study contributed to closing these gaps by describing the inter-relationships between discipline, identities and infrastructure in young visual artists' e-portfolio styles. This research contributed to media studies by describing the creative appropriation of online portfolio software and young people's use of infrastructure spanning different medias. My exploration added to symbolic interactionism by describing students' contrasting digital self-presentation management over time. My study added to social semiotics via an original content analysis method for young people's e-portfolio styles. Describing how adolescent's digital personas mirrored social inequality contributed to cultural sociology, as did insights into how prosumption and produsage marked affluent teens' privileges.

In Summary

I originally hoped that this visual arts e-portfolio education intervention would be an exemplar worthy of nationwide emulation in secondary education. Many visual arts

students learnt digital curation skills during the action research project and three government school students successfully used their e-portfolios as digital symbolic capital that supported their access to tertiary education.

Unfortunately, such benefits proved short term with the project's long term outcomes supporting cultural reproduction, instead of assisting all talented students' social mobility. Despite the benefits experienced by the government school volunteers, the e-portfolio syllabus was discontinued at their school. The Khanya computer lab has been closed, making it impossible to teach a similar e-portfolio syllabus there.

By contrast, the e-portfolio syllabus continued to be taught at the independent school. All its visual art students were taught to curate e-portfolios from grade 10 to matric. Those few students keen to pursue careers involving visual creativity after finishing at the independent school would enjoy a dual advantage. They would have the opportunity to develop digital disciplined identities for academic settings, while also being able to develop and share personas linked to emerging cultural capital: Early exposure to legitimated online resources would benefit those students keen to develop their academic cultural capital using online resources for concerted cultivation. Likewise, an early start in practicing e-portfolio curation could ensure these young men's digital disciplined identities were well tailored for academic assessment.

E-portfolio lessons might also catalyse the young males' interests in using other online portfolios for participating in affinity spaces and improving their informal cultural repertoires. Such early practice, particularly in the exclusive cultural repertoires of produsage, could prove particularly advantageous if prized by local creative industries. For example, developing the digital symbolic capital associated with video editing and developing online visibility as videographers would prove advantageous when parlayed for apprenticeship and work opportunities in Cape Town's film industry.

Through their school's successful sustained adoption of online portfolios for teaching digitally disciplined personas, future independent school students have gained new advantages. They have prolonged exposure to developing digital disciplined identities as academic cultural capital. An already privileged group of students, who are keen on creative industry and fandom, are also likely to benefit from the early development of informal personas as emerging cultural capital.

My action research project should serve as a cautionary example to researchers, educators, educational technologists and other decision makers. Its research intervention temporarily provided visual arts students at a state and an independent school with opportunities to develop their digital literacies through OCC. However, the result of the sustained adoption of the e-portfolio syllabus at the independent school was a long-term outcome that will ultimately benefit the best-resourced visual arts students by supporting their strategic accumulation of capital.

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Appendix

The appendix provides additional information regarding the research sites (1), content analysis (2) and analytical issues (3):

1 The research sites

- A. Background to the independent school
- B. Background to the government school

2 Content analysis

- C. Webpage screen grab types
- D. Online portfolio questionnaire
- E. Out-of-class questionnaire
- F. Index of disciplinary, non-formal and other personas in youths' e-portfolios
- G. Capability and functionings in case studies' spreadsheet

3. Analytical issues

- H. Ethical concerns and considerations for de-identifying screengrabs
- I. Personal reflection

1. The Research Sites

There were many official sources describing the independent school's history, which included books, a school magazine, online articles (such as the school's extensive Wikipedia entry) and other archival content in its Old Boy's building. By contrast, few official sources were readily accessible concerning the government school's past. Its in-depth history was developed from interviews with its Public Relations manager (who also works as a history teacher), Visual Arts and Visual Design staff and archived documents for its official history stored in a mothballed⁵³ library.

The following Section A expands on Chapter Three's background for the independent school and its provision of the visual arts subject. Section B elaborates likewise concerning the government school. Salient differences between the sites are in **bold**.

A. Background to the independent school

A.1 The location of the independent school and the communities it serves

The school is situated in an **upper-middle class suburb**. The majority of its students are day scholars who live with their parents in **affluent suburbs**. There are also many pupils who are boarders and stay on the school grounds at night during term time in one of the **boarding houses**. The secondary school has over 80 educators {excluding support staff} and over 70 students from grade 8 to post-matric, making its **student-to-educator ratio**⁵⁴ under **9:1** in 2011. This is much less than the national average of 15:1 for private schools (Statistics South Africa, 2013).

A.2 A brief history of the independent school

The private school was founded in the **19th century** (school history book details withheld for ethical reasons). As a collegiate institution, it had to be self-supporting and its fees limited it mostly to the sons of the **upper classes of society**. This aligned with views that it should offer children of 'merchants, farmers and magistrates' a different education to other local students. Financial support was provided for sons of clergy and some 'scholars'. While **gender segregation** was deemed desirable and was normal practice in local schools, the collegiate institution also practiced **racial exclusion**; it was for **European boys only**. The school's primary objective was to give a colonial education to young, White men. Such education aimed to fit them for secular employments and professions, as well as for the Church.

The National Party (NP), white-minority government's policies from 1948 led to the formalization of racial discrimination, especially with regard to admission to private schools of non-white pupils and increased government interference in affairs of private schools (for example, the school was forced to close welfare-related projects for black families). In response, the school leadership was involved in bringing together private schools into representative organisations that aimed to protect similar schools from unwarranted state interference. In the late 1970's, the private school made two important changes to its admission policy; young women were admitted to a 'Post-Matriculation' class and its 'European boys only' policy officially ended, when the first black pupils were admitted a few years after isiXhosa was introduced as a subject there.

⁵³ Although the school has a library, this is permanently closed and not open to student as there is no funding for librarian staff.

⁵⁴ The student-to-educator ratio (LER) is the average number of students per educator at a specific level of education, or for a specific type of school, in a given school year (De Lannoy & Hall, 2012).

In 1994 the political rule of the White minority and the policy of Apartheid was replaced by a constitutional democracy in which all South African citizens had the right to vote. The school responded to this profound societal change by developing a strategic vision whose implementation was intended to promote greater inclusivity within the school community and increased social cohesiveness outside it.

B. Background to the government school

B.1 The location and the communities that the government school serves

The school serves an **underprivileged community**; it drew over 1,100 students in 2011 from a widespread area with only a few living within close proximity. Although the homes in the immediate area are middle class, many students travel long distances from poorer suburbs. The school was affected by the WCED embarking on a process of rationalisation in the mid 1990's and the school's teachers were reduced from just over 50 to nearer 30. These still had to serve the same number of students. The school's **student-to-educator ratio** is just under **32:1**. This is slightly worse than the 2008 national government school average of 31.4:1 (De Lannoy & Hall, 2010).

B.2 A brief history of the government school

The government school first opened as a primary school in **the mid twentieth century** at a temporary location, then took over the premises of a nearby primary school. The school was given official high school status, but its inadequate facilities required that it move to a more suitable site where it officially opened in the 1970's.

The school was one of a small number in Cape Town that served as sites of resistance to the disenfranchisement of blacks under Apartheid (Soudien, 2006). It taught a counter-official discourse from the 1960's to 90's. In opposition to the official Apartheid discourse of colouredism and Bantuisation, the schools educated students about what it meant to be a citizen of Cape Town and how to be civically-minded. The school became involved in the **anti-Apartheid struggle** and helped organise **protest action** from 1980 (newspaper sources withheld for ethical reasons). **Police stormed the school**, injuring pupils and teachers. In response, the school helped **organise boycotts, stay-aways, placard protests and marches**. The school was closed by the Education Department after pupils boycotted classes following exams. A countrywide campaign called for the re-opening of schools and the school's community attempted to reopen it. The police arrived, locked the gates and arrested those on its premises. The violence and chaos that pursued prevented students from continuing with their education and a decision was then made for all students to repeat the year. After the end of Apartheid, the school's contribution to the **anti-Apartheid struggle**, was recognized by president Nelson Mandela visiting it. The school's role in the political struggle reflected how rather than being neutral institutions, schools are contested spaces in which the impulses of regulation and emancipation run deep and are often in contestation with each other.

The opening up of private and government schooling opportunities, many of the school's students from better-off families chose to **transfer** to more affluent schools in suburbs nearby. This coincided with **township students** looking for better opportunities and choosing to **travel long distances** to the school as a better option than their closest ones. The school's educational focus continues to confront racial inequalities; the History Department ran an '**anti-racism program**', which introduced **anti-racism studies** within the Grade 11 History syllabus. Students were encouraged to research

community history, which included the histories of their school, its suburb and 'The Education Crisis'.

This crisis is that South Africa has the worst education system of all middle-income countries participating in cross-national assessments of educational achievement and even performs worse than many low-income African countries (Spaull, 2013). Further, a shortage of resources and skilled teachers means that many students cannot access specialised subject teaching. In the Western Cape, access to Arts and Culture education had not necessarily been previously accessible as a recognized offering to many of its students.

The implementation of the new National Curriculum (Jansen and Christie, 1999) provided an opportunity for the DOE to develop *specialist* (or *focus*) schools, which could provide redress and access for students in various educational fields. Specialist schools offer a focused range of subjects. Subject packages can include agriculture, arts and culture, computer and life sciences, engineering and technology, mathematics, maritime studies and physics. Focus schools expose their students to a slight degree of vocationally-oriented education as part of their general education. Such exposure can include a special focus on sports, performing and/or creative arts. By 2012, 153 focus schools had been established in South Africa: 110 were technical and 43 agricultural (Centre for Development and Enterprise, 2012).

The establishment of Arts and Culture focus schools became an integral part of the Western Cape Provincial Government (WPCG) 'Human Capital Development Strategy', which sought to support its students by providing the relevant skills, knowledge, values and attitudes, for youth to make a meaningful economic and civic contribution. The WPCG believed that the Arts and Culture field would contribute to the development of social and intellectual skills for the economy. This vocational focus conflicted with a policy one encouraging students to reach higher education (Larey, 2012).

In the mid-2000's, the WPCG provided millions of Rands to fund ten Arts and Culture Focus Schools for offering Dance Studies (Friedman, 2006), Dramatic Arts, Music (Lewis, 2014), Design and/or Visual Arts subjects. The WPCG expected these schools to ensure excellence by nurturing students with talent, interest and/or aptitude with comprehensive development in such subjects. The government school was designated as an **Arts and Culture Focus school**, which resulted in additional funding and resources being provided for the teaching of dance, music, visual design and art. While the cost of running focus schools is considerably higher than that of ordinary or general schools, no separate funding norms exist for focus schools (Centre for Development and Enterprise, 2012). Focus schools are heavily reliant on provincial government subsidies, or other donors, for sustaining their specialized vocational education foci.

2. Content Analysis

C. Webpage screen grab types

C.1 Template style

Students could make choices that applied to every e-portfolio page. These were writing an *e-portfolio title* and *footer*, and selecting a serif or sans-serif *text style*. Students could also select either a black or white *background page color*.

C.2 'About' page content

Students were taught to create digital self-presentations using the 'About' page. Pupils were taught to use their name, write a personal profile and complete select textual and numeric fields of information. These included their *location*, *contact details*, *specialities* (formerly *expertise*)⁵⁵ and *skills*. Students were also taught to provide a self-portrait image and could select to display the *available for freelance* button graphic. Some chose to add *hyperlinks* to other portfolios (such as Flickr and YouTube) within their profile description.



Figure 80. Screenshot of 'About' page by "Hui", 2012

C.3 Artwork project folder content

Students could create up to five *artwork folders*. Carbonmade limits its free users to uploading 35 images and shows one image per folder page. Students could choose one of three *navigation layouts* in each folder (*flipbook*, *flipbook with thumbnails* or *list*). Students could add a *title* to each image. They could also add; a description for each folder; the *client* the folder was created for; a *hyperlink* to the project's website's address; and the project's *category*.

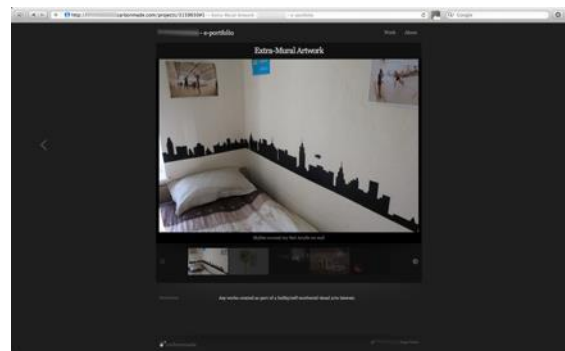


Figure 81. Screenshot of artwork project folder page by "Hui", 2012

C.4 Homepage style

The homepage's information is predominantly sourced from the student's artwork project folder pages and style choices. Its cover imagery features thumbnails that are created by default sampling of the first image in each artwork folder. Students could choose three types of *layout for thumbnails* on the page (either three {default}, two or one per horizontal line) and the artwork project folder *text title locations*, which could be below or inside {default} the folder, or remained hidden.

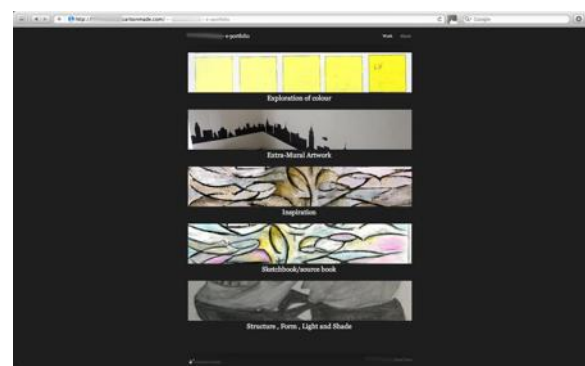


Figure 82. Screenshot of homepage by "Hui", 2012

⁵⁵ The *expertise* field's title was changed to *specialities* by Carbonmade during my research fieldwork.

C.5 Search engine pages

I captured search engine page results for each student's name. In 2012, the Carbonmade search engine displayed results for matching names showing the online portfolio creator's; name, their 'About' page's self image, the number of projects and images uploaded. It also displayed the *available for freelance* button graphic, if it was selected.

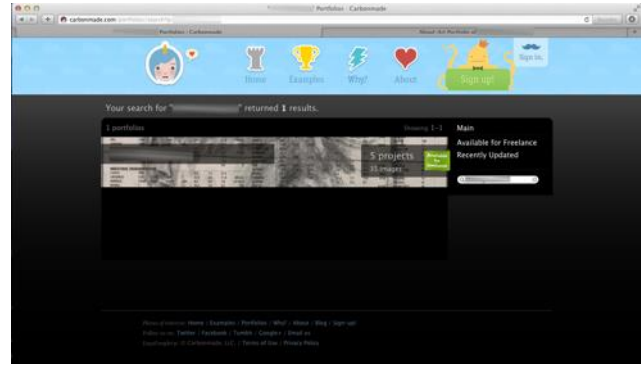


Figure 83. Screenshot of search engine page for “Gary”, 2012

D. Online portfolio questionnaire (Government school version, 2012)

Online Portfolio Practical Assessment Task Feedback Form and Research Questionnaire for Grade 11 Visual Arts learners

Kindly give in-depth, accurate feedback to the attached questionnaire. Your ideas and opinions will be used to help:

- Your Visual Arts educator better understand you and your needs;
- Improve the Online Portfolio introduction lessons for your and other schools;
- Improve decision makers' understanding of the adoption of online portfolio social network software at High School.

Your honest feedback is valued and your response will in no way prejudice your results in the assessment of your performance in this project. The more honest and in-depth your feedback, the more likely you will be asked for more in the future.

Credit: This questionnaire includes several questions modified from the Shuttleworth Foundation's m4Lit: Pre-story teen survey. This questionnaire was originally developed by Tino Kreutzer under the Creative Commons-license. Please visit <http://tinokreutzer.org> for further background.

1. YOUR DEMOGRAPHIC DETAILS

1.1 What is your first name? _____

1.2 What is your surname? _____

1.3 What is your date of birth? (dd.mm.yyyy) _____

1.4 What is your first language? _____

1.5 What is your second language? _____

1.6 What is your email address? _____

1.7 What is your preferred daytime contact number? _____

2. SCHOOL AND YOU

2.1 How long have you been a learner at your school? (year{s} or month{s}) _____

2.3 Are you currently on a scholarship, bursary or other form of financial assistance?

Tick one: No Yes

2.4 What is your school achievement that you are most proud of? Explain:

2.5 How do you feel about school? Do you like it? Do you find it boring? Stressful? Explain:

2.6 Rate your school's promotion of creativity, entrepreneurship and innovation in each empty box: Rating scale: 1 = very bad, 2 = bad, 3 = average, 4 = good, 5 = excellent

creativity		entrepreneurship		innovation	
------------	--	------------------	--	------------	--

3. VISUAL ARTS AND YOU AT SCHOOL.

3.1 Why did you choose to do Visual Arts? Explain.

3.1 How do you feel about the Visual Arts subject you do? Tick one.

I always enjoy it I enjoy it a little It is OK I seldom enjoy it I never enjoy it

3.2 What do you like about Visual Arts? Explain.

3.3 What don't you like about Visual Arts? Explain.

3.4 How long have you been studying Visual Arts? (year{s}): _____ months: _____

3.4.1 If longer than a year, please answer:

3.4.2 What has your best Visual Arts result? (1 to 100%) _____ Year _____

3.4.3 What has been your worst Visual Arts result? (1 to 100%) _____ Year _____

3.4.4 Describe your best Visual Arts achievement? _____

3.5 Are you a member of any other visually creative group? No Yes

3.5.1 If yes, what type: Accelerated Art Digital Design Audio-visual
Photography Other

3.6 Do you intend to study Visual Arts until matric? Yes No

3.6.1 If not, why not: _____

3.7 Tick only one option to indicate how many days a week you typically create art or design, both at school and for homework?

1 2 3 4 5 6 7

3.8 Describe your approach to trying out software. Tick the description that suits your style:

I love being first to try out new software
I enjoy showing others new software that's useful
I use software that works well for people I trust
I prefer to only use the software I'm told to
I only use software, if I have no alternative

3.9 Do you plan to use your online portfolio after grade 12? No Yes

3.9.1 If yes, is it to gain entry into tertiary education? No Yes

3.9.1.1 If yes, tick the discipline(s) you are most likely to apply for entry to:

Architecture Graphic design Interior design
 Illustration Film Fine Art
 Photography Industrial design Other

3.9.1.1.1 If other, please name the discipline:

3.9.1.2 If no, do you plan to use your visual art or design skills in your small business, hobby, etc.? No Yes

3.9.1.2.1 If yes, please elaborate:

3.10 Have you ever entered an online competition involving visual creativity? No Yes

3.11 Would you be interested in entering such competitions? No Yes

3.12 Please tick the boxes for the people you are likely to show your Visual Art projects to (in addition to your teacher and classmates):

Non- Visual Arts staff at your school Non- Visual Arts students at your school
Friends Family Other If other, please specify: _____

4. YOUR PREPARATIONS FOR ONLINE PORTFOLIO PRODUCTION

> DIGITISING YOUR WORK

4.1 Do you think that digitizing your art and designs will be worth the effort? No Yes

4.1.1 Explain why you think so:

4.2 Could you access the following devices in class? Tick one of each:

	Always	Often	Seldom	Never
4.2.1 Computer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.2 Camera	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2.3 Scanner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.3 Could you access the following devices outside of classes (i.e. at home or boarding school)?

Tick one of each:

	Always	Often	Seldom	Never
4.3.1 Computer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3.2 Camera	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3.3 Scanner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.4 How many artworks have you managed to digitize for publication by today? Tick one:

None 1 2 3 4 5 6 7 8 9 10 more than 10

4.5. Rate the support resources that were available to help you understand how to digitize your artwork?

Poor Fair Acceptable Very Good Excellent

4.6 Did you have any problems digitizing your work? No Yes

4.6.1 If yes, explain:

> YOUR CREATIVE PROFILE

4.7 Was writing your own creative profile worth the effort? No Yes

4.7.1 Explain:

4.8 Did you publish your own creative profile before today? No Yes

4.8.1 If no, explain why not:

4.9. Rate the support resources that were available to help you understand how to write your creative profile? Poor Fair Acceptable Very Good Excellent

4.10. Did you have any problems with writing and publishing this profile? No Yes

4.10.1 If yes, explain:

> PUBLISHING YOUR ONLINE PORTFOLIO

4.11 What is your Carbonmade web address?

http://_____ .carbonmade.com

4.12 List any other web-addresses you have (i.e. http://www.youtube.com/user/peter)?

http://_____

http://_____

4.13 Is publishing your own online Carbonmade profile worth the effort? No Yes

4.13.1 Explain why you think so:

4.14. Rate the support resources that were available for preparing your Carbonmade profile?

Poor Fair Acceptable Very Good Excellent

4.15 Did you publish your Carbonmade before today? No Yes

4.15.1 If no, explain why not:

4.16 Did you access internet outside class to update Carbonmade? No Yes

4.16.1 If no, explain why not:

4.16.1 If yes, please tick the environments you updated Carbonmade in:

School Home Internet Café Other

4.16.1.1 If other, please explain where:

4.17 Rate each of the following aspects of Carbonmade software using these values; 1 for poor, 2 for fair, 3 for acceptable, 4 for very good and 5 for excellent:

- 4.17.1 Look and Feel _____ 4.17.2 Easy to Learn _____
4.17.3 Easy to Use _____ 4.17.4 Speed _____
4.17.5 Reliability _____ 4.17.6 Helpfulness _____

4.18 Does Carbonmade handle errors well (i.e. does it show you messages if there is a problem and are the messages easy-to-understand)? No Yes

4.18.1 If no, explain why not:

4.19 Would you recommend Carbonmade to others? No Yes

4.19.1 If no, explain why not:

4.20 What do think are the most significant activities that your Carbonmade portfolio supports? Rate each statement from 1 (most important factor) to 10 (least important), using each rating value JUST ONCE:

- 4.20.1 Motivates me to do better _____
4.20.2 Helps me focus on what I want to do _____
4.20.3 Is useful for backing up my work _____
4.20.4 Helps me share my work with others _____
4.20.5 Is useful for feedback _____
4.20.6 Helps me get in touch with experts _____
4.20.7 Helps me find freelance work _____
4.20.8 Increases my out-of-school opportunities _____
4.20.9 Inspires me to try something new _____
4.20.10 Gets me marks _____

4.20.11 Are there any other benefits you can you think of with online portfolios?

No Yes

4.20.11.1 If yes, explain what you think these other benefits might be:

4.21 Compared to the other Visual Arts lessons you have done so far in grade 11, the Online Portfolio was:

The best Better than average Average Worse than average The worst

4.21.1 Explain why you gave this rating:

4.22 Do you want to do online portfolio lessons focused on choosing the best online portfolio software for your needs next year? No Yes It depends

4.22.1 Explain your answer:

> LEARNING FROM OTHERS' ONLINE PORTFOLIOS

4.23 What do you think of viewing the online portfolios of other visual creatives? Tick all that you agree with:

- | | |
|--|--|
| It is easy to find work that I like <input type="checkbox"/> | It is hard to find work I like <input type="checkbox"/> |
| I have found portfolios that I can learn from <input type="checkbox"/> | I did not learn from other portfolios <input type="checkbox"/> |
| It is often a waste of time for me <input type="checkbox"/> | It can be very educational <input type="checkbox"/> |
| The quality of featured work intimidates me <input type="checkbox"/> | The featured work inspires me <input type="checkbox"/> |

4.24 Would you like to see the artwork of your peers from other schools:

No Yes

4.24.1 Explain your answer:

4.25 Did the Visual Arts online portfolio curriculum encouraged you to think about portfolios you could create for other subjects (such as creative writing and music)?

No Yes

4.25.1 If yes, explain your answer:

Thanks for your time and effort 😊!

E. Out-of-class questionnaire (Government school version, 2012)

Out Of Class Research Questionnaire for Grade 11

Please give in-depth, honest answers to this questionnaire. Your feedback can help:

- Your Art educator better understand you and your needs;
- Improve online portfolio curriculums.

Your honest feedback is valued and it will in no way prejudice your results.

1. YOUR DEMOGRAPHIC DETAILS

1.1 What is your name _____

1.2 Age _____

2. OUT-OF-SCHOOL MEDIA PRODUCTION

2.1 Do you consider yourself a fan of any particular movies, books, comics, television shows, animations, art, music, games or other forms of media?

Yes No Not sure

If you are a fan, please list your favourite movies, books, comics, television shows, animations, art, music, games or other forms of media:

Media	I am a fan	I use these fan websites

2.2 Have you used your creative skills (for example, in art, design, photography and video) to create fan-related, or other, media? Yes No Not sure

2.2.1 If yes, what did you do?

2.3 Do you share your creations with other fans? Yes No Not sure

2.3.1 If yes, how do you share your creations?

2.3.2 If yes, why do you share your creations?

2.3.3 If no, why don't you share?

2.4 Do you share your creations with friends?
2.4.1 If yes, how do you share your creations?

Yes No Not sure

2.4.2 If yes, why do you share your creations?

2.4.3 If no, why don't you share?

2.5 Do you share all your creations with parents or teachers? No Yes
2.5.1 If yes, how do you share your creations?

2.5.2 If yes, why do you share your creations?

2.5.3 If no, why don't you share?

2.6 Is there something you want to create in class, but cannot?
Yes No Not sure
2.6.1 If yes, what is it?

2.7 Have you used any new online services since the online portfolio lessons began?
Yes No Not sure

2.7.1 If yes, what?

3. USING ONLINE FEEDBACK

3.1 Do you comment on other people's Facebook photos online?

3.1.1 How frequently do you comment (tick one):

several times a day at least once a day every few days rarely never
 always usually hardly ever never not applicable

3.1.2 Explain why, or why not?

3.2 Do you comment on other people's fan artworks or other creations online?

How frequently do you comment (tick one):

- several times a day at least once a day every few days rarely never
 always usually hardly ever never not applicable

3.2.1 Explain why, or why not?

3.3 Do you rate other people's creations online?

No Yes

3.3.1 Why?

3.4 What do you feel about other people giving feedback about your work?

3.5 Do you want your peers from your art class to give you feedback online?

No Yes

3.5 If No, why?

3.5.2 If yes, what type of feedback would you like? Tick the relevant boxes.

Comments Reviews Ratings Tags Other _____

3.6 What other forums could motivate you to improve your online portfolio? Tick any that apply.

- Showing my Carbonmade portfolio to my parents or guardians
Showing my Carbonmade portfolio in an exhibition
Presenting my Carbonmade portfolio to class
Making my Carbonmade portfolio searchable (i.e. with Google)
Other (please specify). _____
None _____

4. VISUAL ARTS RESOURCES OUTSIDE CLASS

4.1 Do you have enough space to do Visual Arts work outside of class? Tick one.

More than enough Enough Not enough None

4.2 Do you have enough equipment to do Visual Arts work outside of class? Tick one.

Everything I want All I need Not enough None

4.3 Can you find the time to do the Visual Arts work you want to outside class?

All I need Mostly Seldom Never

4.4 Are you encouraged to do Visual Art outside class? No Yes

4.4.1 If yes, who encourages you and how?

F. Index of disciplinary, non-formal and other personas signified in young people's e-portfolio productions.

i. Disciplinary personas

- D.1 Draughtsman / drawing
- D.2 Painter / painting
- D.3 Sculptor
- D.4 Designer

ii. "Unofficial" visual creative personas

- C.1 Arts society member / workshop attendee
- C.2 Mixed media artist / collage maker/ scrapbooker
- C.3 Graffiti artist/ stenciller/ muralist
- C.4 Tattoo artist
- C.5 Typographer
- C.6 Calligrapher
- C.7 Fashion designer
- C.8 Printmaker
- C.9 Photographer
- C.10 Photo editor
- C.11 Blogger or other online portfolio creator
- C.12 Cartoonist
- C.13 Animator
- C.14 Videographer

iii. Other personas

- D.1 Writer/poet
- D.2 Music fan
- D.3 Musician
- D.4 Dancer sports participant (includes fandom)
- D.5 Entrepreneur/ freelancer
- D.6 Art gallery visitor
- D.7 Family member
- D.8 Socialiser
- D.9 Member of other school societies
- D.10 Religion member
- D.11 Pet owner
- D.12 Auto enthusiast
- D.13 Foodie/food consumer
- D.14 Computer gamer
- D.15 Tourist/sightseer

Challenges in identifying and coding youths' digital personas.

It could be very difficult and complex to identify the differences between a teenager's remediation of a persona, versus simply expressing an interest or a taste. For simplicity, I included the latter two under personas. In listing the disciplinary and "unofficial" visual creative personas, students could use different terms for the same practices and my coding system grouped these into one role, while indicating the terms students listed (i.e. mixed media artist / collage maker/ scrapbooker). While the meaning of disciplinary

terms (i.e. design) could differ between learners and sites (e.g. computer-based, graphic design versus illustrative design), for practicality my coding used one role (i.e. designer) to cover the varied terms youth used for it.

Young people could also express varied personas with imagery (i.e. tourist and photographer). I reviewed each e-portfolio a few times to minimise overlooking personas that were only visually expressed, but not described on youths' profile pages. My research focus on cultural production was reflected under the 'other personas' category by distinguishing select personas related to cultural consumption (i.e. music fan) from those in production (e.g. musician). However, I did combine consumption and production in roles unrelated to the most distinctive cultural identities {i.e. sports participant (which included fandom)}. While some personas, such as being a tourist, could reflect very different levels of resourcing (i.e. an international trip versus a local sightseeing one), these were placed under one persona. This reflected an inclusive approach to accommodating the diverse economic backgrounds of the research participants.

G. Capability and functionings in case studies' spreadsheet

G1. Independent school student case studies

	George		Thembani		Vikus		Harry		Gary		Kyle	
	ABLE	ACHIEVED	ABLE	ACHIEVED	ABLE	ACHIEVED	ABLE	ACHIEVED	ABLE	ACHIEVED	ABLE	ACHIEVED
visual creative showcase	X	X	X	X	X	0	X	X	X	X	X	X
1 Representation												
1.1 Share one's disciplinary persona(s)	X	X	X	X	X	0	X	X	X	X	X	X
1.2 Share one's "unofficial" visual creative persona(s)	X	0	X	0	0	0	X	X	X	X	X	X
1.3 and other types of cultural capital	X	X	X	X	X	0	X	X	X	X	X	X
1.4 Curate a satisfying digital identity	X	X	X	0	X	0	X	X	X	X	X	X
2 Publish a well-organised showcase portfolio	X	X	X	0	X	0	X	X	X	X	X	X
3 Link to portfolios featuring other valued cultural capital	X	0	0	0	0	0	0	0	X	X	X	X
4 Appropriate influences and attribute their source	X	X	X	0	X	0	X	X	X	X	X	X
5 Acceptable production values	X	X	X	0	0	0	X	X	X	X	X	X
2 Facilitating communication												
6 Being searchable/found by desired audiences	X	X	X	X	X	X	X	X	X	X	X	X
7 Privacy protected from undesirable audiences	0	0	0	0	0	0	0	0	0	0	0	0

G2. Government school student case studies

	Dina		Nathan		Lesley-Ann		Masibulele		Herschelle		Melissa	
	ABLE	ACHIEVED	ABLE	ACHIEVED	ABLE	ACHIEVED	ABLE	ACHIEVED	ABLE	ACHIEVED	ABLE	ACHIEVED
visual creative showcase	X	X	X	0	X	X	X	X	X	X	X	X
1 Representation												
1.1 Share one's disciplinary persona(s)	X	X	X	X	X	0	X	X	X	X	X	X
1.2 Share one's "unofficial" visual creative persona(s)	X	X	0	0	X	X	X	X	X	X	X	X
1.3 and other types of cultural capital	X	0	X	X	X	X	X	X	X	X	X	X
1.4 Curated a satisfying digital persona	X	X	0	0	X	X	X	X	X	X	X	X
2 Publish a well-organised showcase portfolio	X	X	0	0	X	X	X	X	X	X	X	X
3 Link to portfolios featuring other valued cultural capital	0	0	0	0	X	0	X	0	0	0	X	X
4 Appropriate influences and attribute their source	0	0	0	0	0	0	0	0	0	0	0	0
5 Acceptable production values	X	X	X	0	X	X	X	X	X	X	X	X
2 Facilitating communication												
6 Being searchable/found by desired audiences	X	0	X	X	X	X	X	X	X	X	X	X
7 Privacy protected from undesirable audiences	X	X	X	0	X	X	X	0	X	0	X	X

3. Analytical Issues

H. Ethical concerns and considerations for de-identifying screengrabs

Advances in online image and text search may pose unexpected ethical challenges to researchers in protecting the privacy of their participants while sharing visual productions (Noakes, 2016). I initially assumed that depersonalizing screen grab imagery would be sufficient to conceal teenagers' identities. However, in testing "depersonalized" screenshots of my participants' online portfolio screen grabs, I learnt that the ever-growing accuracy of text-and/or-image searches, such as via Google Image, TinEye, Bing or Pinterest, does require additional steps for dis-identification. Without these, sharing webpage screen grabs can potentially be used by undesirable audiences to locate young people's websites and contact details. Screen grabs may also pose reputation risks in potentially being shared long after participants might want them to be. Both types of risks need to be weighed up against the benefits of sharing select students' e-portfolio productions in this thesis. These include visual representations making it easier for readers to become familiar with the online portfolio genre. Screen shots also provide visual support for the research themes that emerged from young people's curations.

An original method for multimodal content analysis was developed using screen grabs to reverse-engineer the choices that 29 visual arts students made in using Carbonmade. To keep the rich nature of my visual data, these were privately analyzed using NVivo. I sought to de-identify select web page screenshots for sharing in conference presentations. A process for visual anonymization was followed, which was not extensive as I wanted to preserve most of the screen grab for accuracy. The anonymizing process involved Adobe Photoshop's blur function being used on several fields of every webpage. This ranged from the web address and portfolio name on every page to all mentions of their name on their profile pages and their contact details. It also involved checking that the e-portfolio's creator was not identifiable from their portrait picture and that no images disclosed their school's identity (i.e. school poster designs or uniforms). To further protect anonymity, image files were titled using pseudonyms.

I added select screen grabs, two per A4 page, into my draft thesis's case study chapters. During their review, I was advised to remove screen grabs that might expose its creators to ridicule and to also check the reverse search-ability of all images. In checking, I learnt that the depersonalization measures I took were insufficient. A 'visual specific dilemma' existed whereby my participants could still be traced through the following types of internet searches:

- An internet text search using text used in students' self-descriptions under their About Us page;
- An internet text search using the folder titles shown by the screenshots (i.e., in Google, using <e-portfolio software name> + <folder title>);
- An internet search using the image titles shown in the screenshots (i.e. in Google, using <e-portfolio software name> + <image title>);
- An internet image search using the screen grabs (for example in 'Google Images');
- An internet image search of the images inside the screenshots;
- In addition, location information and other information in the case studies and school backgrounds could be used in narrowing image and text searches.

I warned the e-portfolio educator, "Mr Proudfoot", that he should take additional steps to better protect student privacy via revising their e-portfolio pedagogy: my action research project found that teaching students to hide their contact details did provide a false sense of security, since teachers mistakenly believed that this made their students difficult to contact. Simply using students' real names in online searches quickly served up their social network profiles. Some of these were public by default.

When my fieldwork began in 2010, I did not ask for student permission to use screen shots of their work. This was simply not a focus at the time. However, during my fieldwork I pioneered a screen grab analysis method that became heavily used in Chapter Four. I also thought that screen grabs would prove helpful in adding a rich visual context to readers of my content analysis and eleven students' case studies.

I approached an ethics expert, who advised that since the screen shots are of web pages they are in the public domain already. He believed that I did not need students' permission to use their work. Despite it not being a legal or institutional requirement, I remain mindful of the assurances that I gave to schools and students on protecting the research participants' privacy. Such assurances helped me overcome one challenge in securing ethics approval from the WCED/DOE and my two research sites. I am also conscious that only a few of my case study subjects responded to Facebook or emailed requests for retro-active permission to publish anonymized screenshots in my thesis.

My concerns around potential disclosure and lacking participants' explicit consent resonates with Prosser, Clark and Wiles' (2008) contention that concrete contextual issues and a researcher's individual moral framework must be added to legal and institutional requirements in making ethical visual research decisions. The risks to participants associated with disclosure may be small, but it does not sit well with my moral compass that the screen grabs in my thesis might provide visual evidence for subverting past assurances. Particularly now that the thesis itself is easy to source and search. In the past, the provision of UCT thesis hardcopies were mostly limited to its library. However, these are now automatically digitized for sharing post-graduation online via the library's website (and possibly Open UCT). Further, since I have already shared many screen grabs online in conference presentations, I must also explore reciprocal measures to protect my participants' privacy. For example, by replacing the screen grabs I shared in old presentations with properly anonymized ones.

To find out how other researchers have tackled the problem of depersonalising screen grabs, I did Google Scholar searches for guidance on anonymising 'screen grabs', 'screenshots' or 'screen captures'. I could not find relevant content, which seems to mirror the reality of screen capture techniques being mostly used for exemplars rather than in the research process itself. Lacking a matching example to follow in visual culture research, I found Dr Kirsty Young's discussion of her research experiences with young people's online spaces (2013) particularly informative. It highlights several ethical dilemmas posed by new forms of research that the internet has enabled.

My research project is unusual in being human subject research focused on public texts. It is the former as I have been involved in developing a new syllabus and doing face-to-face research with youths throughout e-portfolio lessons. However, I am also researching public texts since all my participants Carbonmade portfolios have no privacy restrictions. Given its unusual position in straddling both methods, I cannot expect unanimous agreement in the academic community regarding how the ethical principles of consent

and anonymity pertain to my study. The public text argument versus one for the more onerous rules governing human subject research could easily be argued in both cases. This may pose unexpected problems for the publication of my visual research data. If research data cannot be shared it becomes redundant, which itself is unethical in wasting participants' time (Young, 2013).

In response, I must be cautious and take steps to ensure that my project's ethics in sharing screengrabs cannot be faulted from a human subject research perspective. While all participants and their parents/guardians consented to my research, some were only asked after my fieldwork concluded for permission to re-publish their work. I had not considered the future need to use young people's webpages publicly in academic publications. Given that the webpages are the intellectual property of their authors and that their content would be displayed more widely than the youth possibly intended, I intend to secure written consent for their academic use. This consent will address the timespan that informed consent is given for and afford options for the level of anonymity required. I will show my case study subjects examples of their dis-identified webpages to assist their decision-making.

Additional steps for depersonalising or anonymising screen grab images

Given the ready availability of image search sites and image reverse search applications, it is important for researchers to take steps to fully depersonalize images for participants' anonymity. As web page design is multimodal, it is also important that researchers filter both images and text. For example, in my research I had to avoid mentioning folder titles verbatim in this thesis. I also tried to avoid quoting students' profile descriptions verbatim for longer than three words.

The two alternate options (1 - 2) I tested for depersonalizing screen capture images were:

1. Black out all text and replace profile image with silhouette outline



Figure 84. Option A. "George" depersonalized 'About' page with all text blacked out and profile image in silhouette outline, 2012

All text is blacked out, making it impossible for viewers to copy text strings in their searches. The blurred outline image is replaced with an outline drawing to add some visual information.

2. Only add depersonalized screen grabs at small thumbnail sizes, organized inside tables

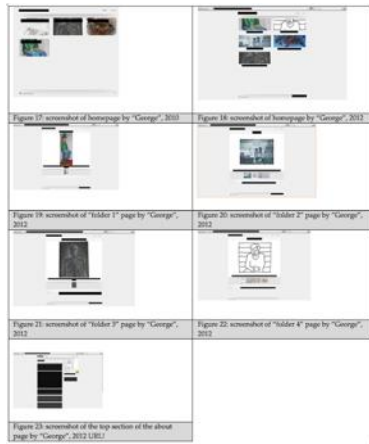


Figure 85. Option B. "George" de-personalized e-portfolio pages from 2012 reduced into thumbnail images in a table



Figure 86. Google image search result for option A's image, 2016

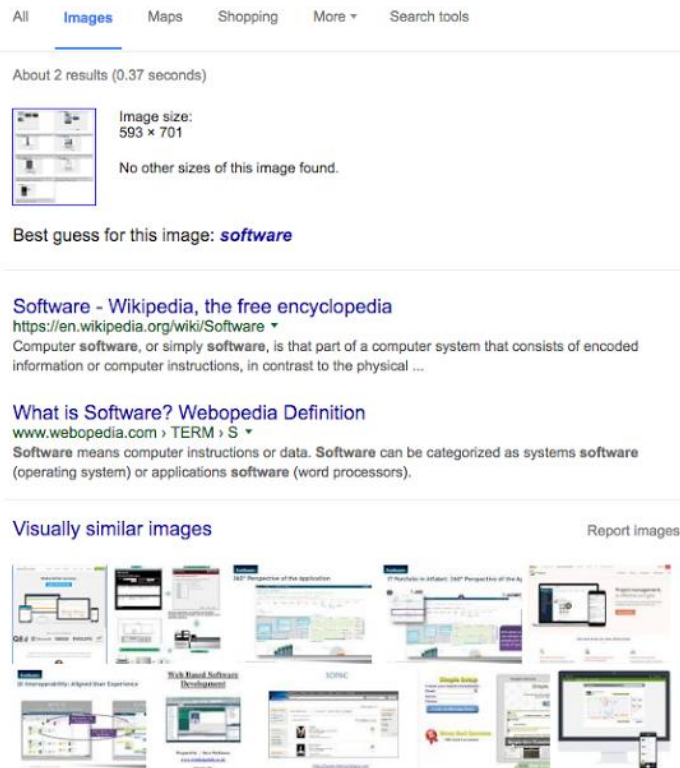


Figure 87. Google image search result for option B's image, 2016

Both options enabled sufficient levels of anonymity in their results being linked to generic software entries. I then tested what would happen if a thumbnail image of student's work was selected from the table of thumbnail images. At such a small size, the highly-pixelated image results did not link back to their creator or Carbonmade during a reverse image search.

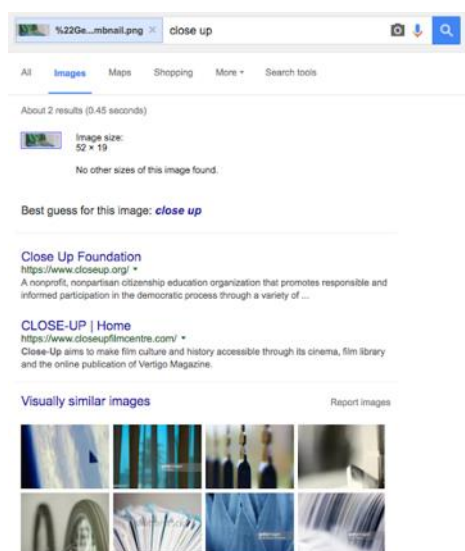


Figure 88. Google Images result for "George" depersonalised thumbnail painting crop 2016

While the process of dis-identifying over 80 images will be lengthy, I am pleased that I can use heavily anonymized imagery, rather than none.

I. Personal Reflection

Self-reflection for my research into visual arts students' e-portfolio curations

A researcher should exercise self-reflection concerning their research process to support a reflexive sociological study (Bourdieu, 2007). While this is usually necessary preliminary to a sociological study, mine is a postscript. I had no experience with sociological research before starting my e-portfolio research project, but developed an appreciation for cultural studies during the research process.

I am an old boy of the independent school and did the Visual Arts subject there, matriculating in 1991. After doing a BA in Fine Art {Honours in Design} (1992-95) I did an MA in Digital Arts (1996-97). I then worked in graphic design and brand management for 12 years (1997 – 2008). Whilst exploring research topics for my PhD, I volunteered to help Mr Proudfoot organize a digital exhibition of alumnae's work in a school computer lab. In searching for software services that might facilitate a group exhibition, we encountered free, easy-to-use services for individuals keen to curate digitised exhibitions online.

My personal experience suggested that on-going online portfolio use has an important benefit: I did not curate a professional one and learnt that it would take a lot of effort to retroactively collate my professional portfolio and remediate it. By exposing students early on to e-portfolios that might track their development over time (Barrett, 2000), I hoped they would become habituated to regular digital curation of their work and avoid a similar predicament to mine.

I also intended my research to serve social justice as a collaborative partnership with educators. It helped them and their students to develop skills and knowledge in using online resources for digital self-presentation and portfolio development. Educators and policy advisors helped me to plan the purpose and focus of my research and derived social value from being able to trial new curricula.

My initial assumption was that the novel e-portfolio curricula would support all enthusiastic students, regardless of their circumstances, to produce disciplinary showcases. This belief reflected my privileged social origin, as well as inexperience in educational sociology and in researching digital creative productions: as a White male from a privileged background, I lacked the experience to anticipate the types of challenges that visual creatives from differing class-, race- and/or gender backgrounds might experience when curating e-portfolios to present disciplined identities. I also had never had first-hand experience of the differences in my alma-mater's resourcing for the Visual Arts subject versus government schools.

A four-year-long duration action research project enabled the recording and analysis of students' development as visual artists via e-portfolios. Each e-portfolio was analysed along with producers' dissimilar social contexts. In stark contrast to my initial assumption, the analysis identified that the e-portfolio syllabus seemed to amplify the advantages of privileged youth or the paucity of marginalized youths. Such amplification seemed strongly linked to both cultural capital and technological resourcing. Teachers often promoted highbrow cultural norms entrenched by White, English medium schooling. Such norms could disadvantage marginalized youths and those developing repertoires in creative industry, crafts or fan art. Furthermore, major technological inequalities caused further exclusion. Differences in connectivity and infrastructure

between the two research sites and individuals' home environments were apparent. While the project supported the development of new literacies, the intervention nonetheless inadvertently reproduced the symbolic advantages of privileged youths.

Important distinctions existed between participants' use of media technologies. Resource-intensive communications proved gatekeepers to under-resourced students and stopped them fully articulating their abilities in their e-portfolios. In particular, those students who did not have internet access outside school had the most limited exposure to developing a digital hexis while remediating artworks, presenting personas and benefiting from online affinity spaces. Such teenagers uniquely expressed dissatisfaction with their e-portfolio styles. By contrast, students with free home access created comprehensive showcases curating links to their productions in varied affinity groups.

Male teens from affluent homes were better positioned to negotiate their classroom identities, as well as entrepreneurial and other personas. Cultural capital acquired in their homes, such as skills in video production, needed to resonate with the broader ethos of school in its class and cultural dimensions. By contrast, certain craft, youth culture and fan art productions seemed precluded by assimilationist assumptions. At the same time, female students grappled with the risks and benefits of online visibility.

An important side effect of validating media produced outside school is that privileged teens may amplify their symbolic advantages by easily adding distinctive personas. Under-resourced students must contend with the dual challenges of media ecologies as gatekeepers and an exclusionary cultural environment. In response, my research shifted to following a critical action research approach that critiques the appropriation of e-portfolios in poorly resourced and strongly assimilationist formal environments.

For the visual arts e-portfolio syllabus to be successful for all students, both infrastructural inequality and decolonisation must be explicitly addressed. To accomplish equitable digital portfolio education requires that under-resourced youths need sufficient infrastructure in class to curate showcase portfolios. All youths should also be encouraged to reflect on how the legitimate identities they are taught can link to "unofficial" visual creative identities and others. While students are taught to internalize the legitimate habitus of a traditional fine artist, there are many "unofficial" repertoires and visual cultural identities that young people could be encouraged to explore.

Researching the interplay of cultural repertoires and digital habituses in students' e-portfolios has taught me to question how Mr Proudfoot and my shared backgrounds as White, middle class, privileged males shaped our joint assumptions about what "must be" taught in the visual arts e-portfolio syllabi. Two key examples included a lack of appreciation for the importance of providing infrastructural workarounds for under-resourced students and the failure to foresee that young women should be encouraged to hide their identities for minimizing sexual harassment. In response, our approach to the visual arts showcase e-portfolio syllabi has changed. For example, Mr Proudfoot's revised syllabus now encourages his students to express a wide range of identities and source from a broad range of visual cultural involvement. My blogsite's e-portfolio teaching section will be updated to help educators consider how students' different backgrounds are likely to shape their negotiations of digitally disciplined and informal identities.