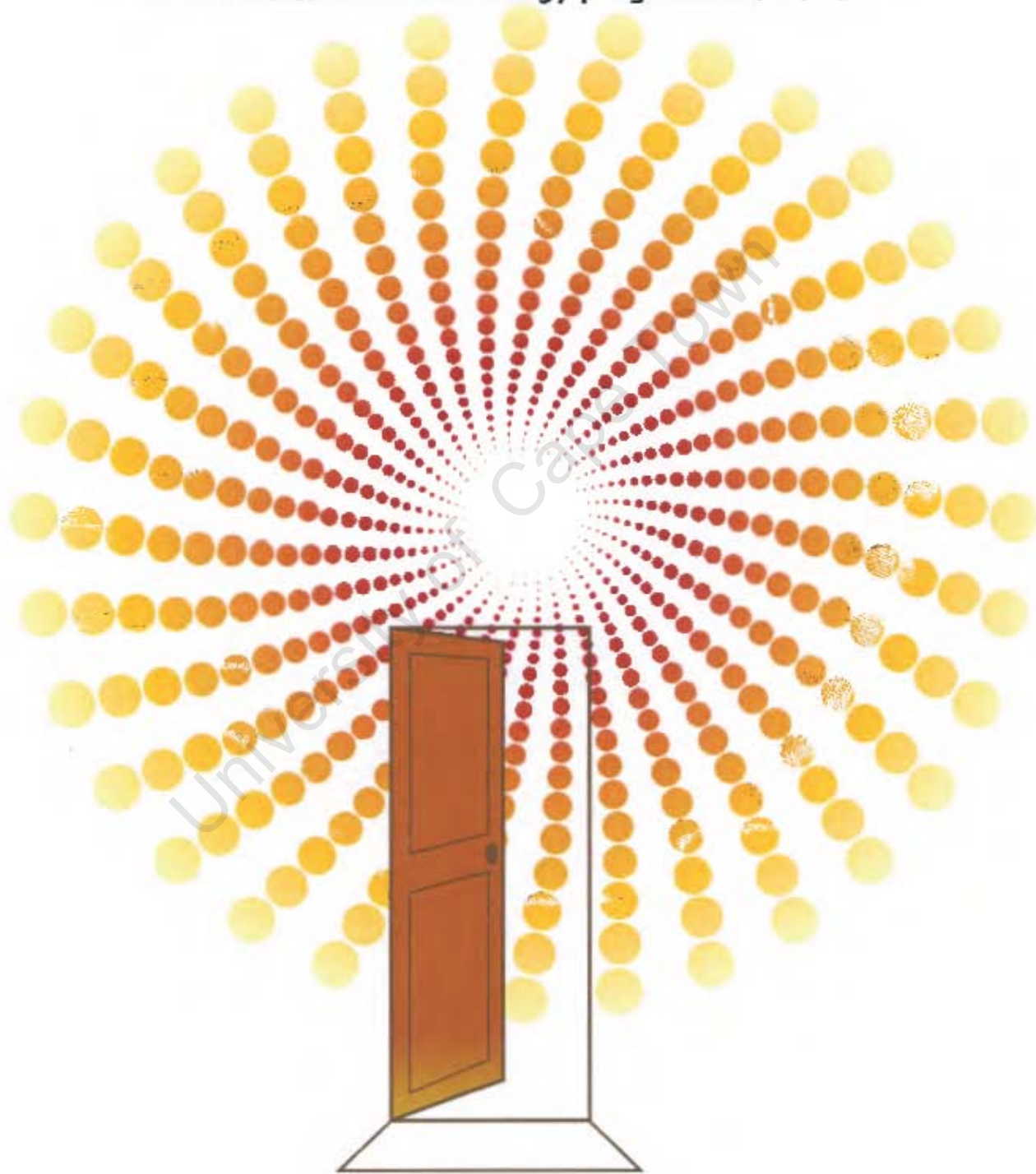


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# Web Design Discourse and Access

A case study of student entry into a web design discourse  
in the multimedia technology programme at CPUT.



L y n n   C o l e m a n

## **Web Design Discourse and Access**

A case study of student entry into a web design Discourse in the  
Multimedia Technology Programme at CPUT

**Lynn Coleman – CLMLYN002**

A minor dissertation submitted in partial fulfillment of the  
requirements for the award of the degree of  
**Master of Philosophy in Higher Education Studies**

**Faculty of Humanities**

**University of Cape Town**

**2006**

### **Compulsory Declaration**

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

**Signature:**

Signed by candidate

**Date:** 30 August 2006



## Abstract

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This thesis represents an instance of my engagement as a reflective practitioner to explore how access opportunities into a web design Discourse can be enhanced. The study is located in the Multimedia Skills subject which is part of the Certificate in Multimedia Technology at Cape Peninsula University of Technology.

In describing student entry into a web design environment, insights into academic literacy practices within the multimedia and web design environment are provided. The theoretical concepts of Discourse, interest, intertextuality, literacy, acquisition and learning are used to ground the conceptual framework of the study, while an interpretative case study is utilized as research methodology. Using the notion of recontextualisation, how the professional Discourse of web design was appropriated into the curriculum of the Multimedia Skills subject and the Multimedia Technology programme is described. This analysis identifies a core identity distinction between web designers (who have a strong visual focus) and web developers (who foreground technical competencies) which is supported by the subject focus in the programme.

The research considers two key data sources, personal websites and semi-structured interviews. These account for student performances in and meta-knowledge of the web design Discourse and reveal evidence of how Discourses were reflected in student design decision-making in their personal websites. The differential experiences of student access to the web design Discourse prompt the consideration of how learning and acquisition activities could be used in the classroom to facilitate more balanced performance and meta-knowledge expression.

The study provides some insights into how access opportunities can be facilitated using pedagogic interventions. An enhanced understanding of my practice context has been facilitated by the study and this will allow me to scaffold appropriate web design practices in the classroom, while being more aware of how to recognize appropriate students performances and meta-knowledge of the web design Discourse. The study advocates a broader conceptualization of literacy and describes how various literacy practices (which include the use of multimodality as is the norm in website design) can be accommodated and incorporated into notions of what constitutes academic literacy in this disciplinary field. What Cee (1990, 1996) calls 'mushfaking' is further identified as an access strategy suitable to the contextual realities of the Multimedia Skills classroom. Further practical curriculum interventions are advanced that highlight the importance of

balancing learning and acquisition activities to ensure web design literacy. A continuum between manifest intertextuality and interdiscursivity is a direct result of my conceptual analysis and use of intertextuality to describe how students use Discourses in their web design practice. This continuum is regarded as a vital recognition tool for my classroom. While the continuum can act as a literacy level indicator, it has an added academic function in that it may enable more appropriate and direct scaffolding strategies and suggestions to be communicated to students. This study furthermore illuminates the possibility of addressing the challenge of epistemological access through the use of pedagogic inventions that show how the Multimedia Skills subject can act as a bridge and access strategy to the professional field of web design. The reflective aspect of the research reveals that my own subjectivity also influences how access is facilitated in my classroom.

University of Cape Town



# Acknowledgements

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The assistance and encouragement received from various individuals helped to make this mini-thesis a reality.

To develop the notion of a web design Discourse I relied on the input of various web designers working in the Cape Town web design industry.

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Tanya Ronnie, my colleague and Multimedia Technology graduate, was responsible for all the graphic illustrations, cover page design and the CD ROM design and development. Without her creative flare, technical ability and patience to deal with the endless sea of amendments, I would not be able to show the complexity of my practice environment in the graphic and interactive manner presented in this mini-thesis.


Friends, family and colleagues, provided the necessary support, interest, encouragement and kind words that often sustained me during needy times.

Lucia Thesen, my supervisor and mentor, provided and sustained an encouraging, but challenging learning environment. Working with her in this research process has not only shifted my perceptions of what I do as a teacher (noted in this mini-thesis), it has enhanced my awareness, respect and appreciation of the complexities of the teacher/student relationship, irrespective who is the teacher or the student.



## Note to the Reader

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This research is located in the visual and digital environment of web design. This thesis however has to be presented in the print medium which results in particular challenges in relation to the display of website material. To accommodate these challenges and in an attempt consolidate all the data and illustration into one document, the thesis contains a series of visual images and screenshots of webpages. However the interactive nature of the web environment and the limitations of print to adequately translate the visual detail of websites can stymie a full appreciation of the websites. A CD ROM accompanies this thesis and contains a range of interactive resources including the **student interactive personal websites** which acts as a key data source of this research. The CD ROM is meant to complement and enhance your reading of the thesis, although the inclusion of visual illustrations within the thesis means that a complete picture of the research is created should you wish to refrain from using the CD ROM. I would however like to encourage the viewing of the personal websites as the webpage screenshots included in the thesis are there for illustration purposes only. This symbol  will be used to indicate where the CD ROM should be consulted. A Glossary is provided as an appendix and also in interactive form on the CD ROM to assist with the definition of various technical terms.



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# Chapter 1

## The Introduction

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I have been the lecturer of the Multimedia Skills ('Skills') subject which is part of the Certificate in Multimedia Technology (MM Tech) at Cape Peninsula University of Technology (CPUT) since the programme's inception in 2001. I see myself as a reflective practitioner, and so am constantly aware of how the learning and teaching environment, my practice environment, is shaped and influenced by a range of factors. The factors are internal, (involving the lecturer and students - their personal backgrounds, philosophies, learning or teaching styles - and the pedagogic approaches used) as well as external (e.g. curriculum structures of the department or programme, institutional directives, economic imperatives impacting on national educational policies) to the classroom environment. Over the past five years I have devoted a lot of my reflective efforts to the idea of how meaningful access to the knowledge constructs (epistemology) of multimedia and the academic arena could be created for students taking my subject. The main focus of these reflections has been on how I do things in the classroom - my personal teaching strategies and approaches. Unfortunately many of these efforts have resulted in frustrating outcomes or my continued disillusionment in finding a working solution, as students continue to struggle with the content rules, values, conventions and stylistic demands of the multimedia disciplinary environment specifically and more generally with the learning, teaching setting of my subject.

The study was framed in an attempt to shift my gaze from my own pedagogic experiences and practices to those of my students. It was hoped that by looking at students' interpretations of a particular aspect of the Multimedia Skills subject, insights informed by their experiences could add a fresh perspective to my reflective practitioner engagements. An underlying aim of this study is to explore how access opportunities into the pedagogic environment of web design can be enhanced. Consideration of and the implications for my pedagogic strategies are regarded as a fundamental means whereby the academic access opportunities within my context can

be created. This thesis describes student practices and insights and tells a particular story of how listening to students voices helped me to enhance my understanding of my practice and disciplinary environment.

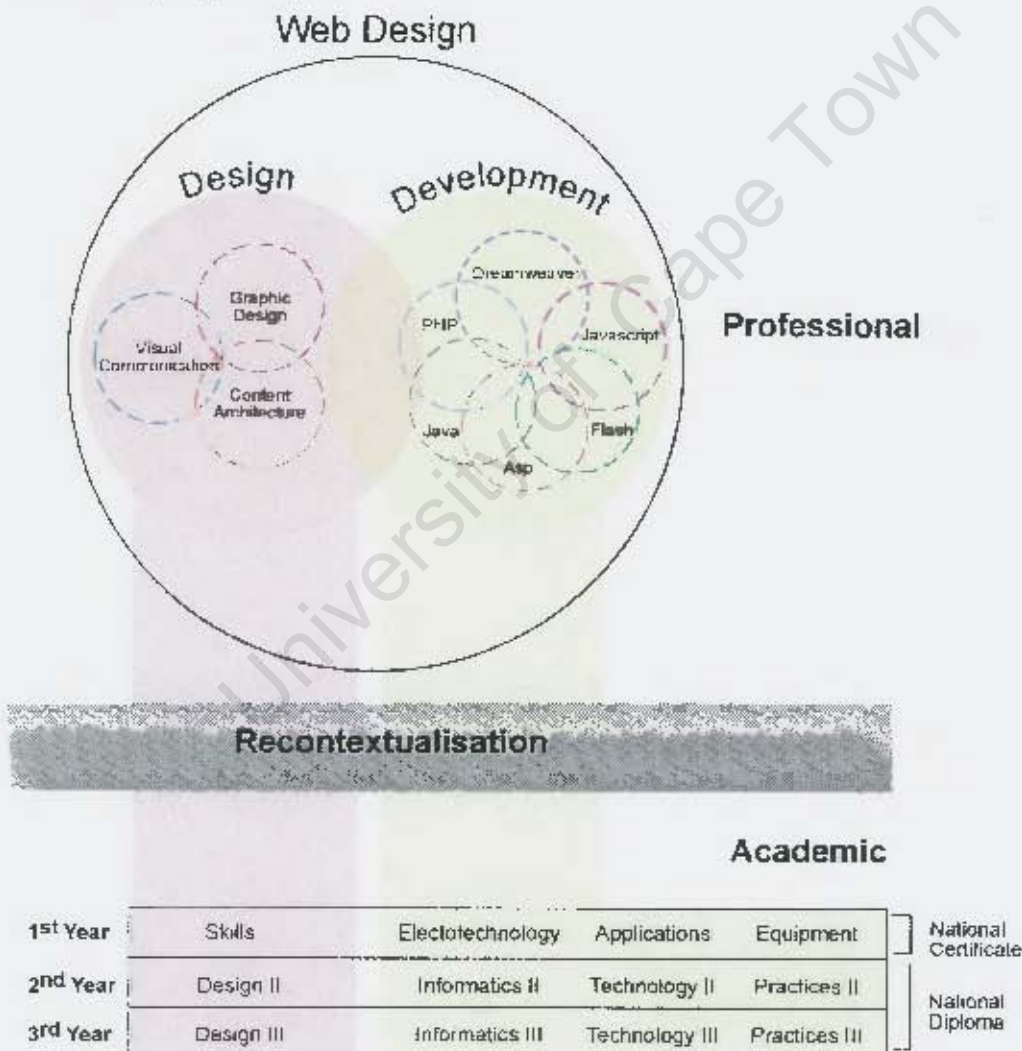
### **My practice environment – looking in, then looking out**

In describing the location of my practice, I will first consider the inner layer (micro level) that consists of the Skills subject and the particular nature of the web design content topic. Thereafter the outer layers of the programme (meso level) in which the subject is embedded and institutional (macro level) context will be described. Walters (2001) suggests a similar approach when attempting to engage in a holistic view of the dynamic nature of classroom teaching and learning activities. She argues that a “dynamic interconnectedness” exists between the inner layer (micro level environment of the classroom) and the outer layers which consist of the meso (organizational structures represented at department and programme level) and the macro level (institutional context and structures) (Walters, 2001:4). Stepping outside the boundaries of the inner layer of my classroom I am able to view the outer environmental layers that include the professional field of web design and the historical location of CPUT. This process enables insights into how aspects of these layers are appropriated and transformed to create the curriculum organisation of the Skills subject and MM Tech programme.

### **A recontextualisation process**

In accounting for the social dimension located in the meso and macro levels of my context that influences how the curriculum is identified and constituted, Bernstein’s (1996) concept of recontextualisation is useful. Recontextualisation is used to describe the process whereby knowledge is “... selectively appropriated from fields of practice and re-shaped and relocated, to make up the curriculum within a particular educational context” (Bernstein, 1996 in Moore, 2004:2). Fairclough uses Bernstein’s concept of recontextualisation within discourse and text analysis to describe the appropriation of elements of one social practice within another, placing the former within the context of the latter, and transforming it in particular ways in the process (2003:32). The notion of recontextualisation hints at what Fairclough terms ‘intertextuality’ to describe the many

ways in which text (like curricula) relate to other texts and voices “ ... texts are constructed through other text being articulated in particular ways, which will depend upon and change with social circumstances” (1992:8). Intertextuality refers more to the presence of ‘text’ within another text, while recontextualisation points specifically to the appropriation of one social practice within another. Both concepts however have currency in this thesis with recontextualisation having particular relevance to the discussion of my practice environment. The recontextualisation process helps to guide the selection and discussion of the salient aspects that inform this environment, presented in the section that follows. The diagram below helps to illustrate the recontextualisation process in relation to the web design field and its appropriation to the MM Tech curriculum.



I believe the epistemological differences that underlie how web design is perceived in the broader professional environment as illustrated here are mirrored in the curriculum structures of the programme<sup>1</sup>. The section that follows discusses how the recontextualisation shapes the curriculum by considering the aspects of Skills subject and the MM Tech programme.

### The inner layer of the Skills subject

The Skills subject is one of four subjects that make up the Certificate course in Multimedia Technology. The programme resides in the Information Technology Department which is part of the Informatics and Design Faculty at CPUT. The main educational aim of the Certificate programme is to develop the necessary skills and competencies to ensure that a student can design and produce a functioning website. To meet this aim the Skills subject allocated six weeks of curriculum time to the content topic of Introductory Web Design (the topic will henceforth be called web design). The 'Skills' Learner Guide (see Appendix One), the main curriculum guide distributed to students, outlines the centrality of the web design topic while highlighting its overarching philosophical stance on web design.

The design and development of websites form the foundation of what multimedia professional are trained to produce. This topic takes a holistic view of the production of this form of media and communication ... . In relation to web design the following issues will be investigated; target audience, consistency in design, elements that make for effective web design, common mistakes, the use of design templates and web site protocols and terminology (2005 'Skills' Learner Guide: 4).

### *A 'Skills' approach to web design*

Website design as explored and discussed in the Skills subject privileges an aesthetic and communicative approach. 'Skills' is concerned with developing an awareness of the characteristics of websites, communication of the Internet, web design principles

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<sup>1</sup> This is an interesting discussion as the scope of the study did not include a detailed exploration of the MM Tech programmes curriculum development process or its organization and structure. As one of the founding staff members of the programme, I can attest that the curriculum and its underlying epistemological basis has developed organically over the past five years. As students started to go into industry either because of in-service training or as graduates, the value or disadvantage of certain skills, content, teaching approaches etc were reviewed, reassessed and so the curriculum focus was refined. A major driving force for the programme was our attempt to create a niche area via our technology focus. Other multimedia courses and programmes take a very specific graphic design orientation. The technology focus was increasingly sanctioned by industry and by our third year of operation become the key framing mechanism for content inclusion and pedagogic practices. Unfortunately the programme has never formally documented its curriculum development process so no official document is available for closer scrutiny. Many of these developments have however been noted in annual programme review meetings.

and strategies, website and webpage layout and design, and the organisation and visual display of content via a website. 'Skills' thus locates itself in the realm of what the profession might identify as competencies of a web designer. This is contrasted to a more technically framed focus where the skill of using certain programming languages and web authoring tools (e.g. HTML, Dreamweaver) informs the content selection and discussion. Multimedia Applications and Electrotechnology, two of the other subjects in the programme, focus primarily on developing students' technical competency in using various tools to create and build a working website. These subjects therefore locate themselves in the arena commonly referred to as website development. This distinction between the web designer and web developer identity, signals a fundamental philosophical orientation that informs and positions any discussion of what constitutes web design as a content area. The importance of this distinction and how I view its manifestation in the contextual environment of the study is considered in more detail later in this chapter when the meso level of the study is explored. It also reappears in later discussions of the data analysis and interpretations of the study.

### *The 'Skills' pedagogic practice*

The pedagogic approach informing web design in 'Skills' tries to relate the use of theoretically informed principles and design practices gained from core literature on web design to their application to practical examples and tasks. Students are required to either locate these practices and principles in existing websites on the Internet or apply them to their own web design practices, as was the case for the assessment (see Appendix Two for the assessment brief and Skills subject rubric used) that formed the basis of the case study of this research investigation. In the teaching of the topic, use is made of a range of websites to demonstrate various web design principles or approaches noted in the literature. These sites are then presented for analysis in class. On a weekly basis<sup>2</sup> (see Appendix Three for the weekly tasks) students are required to present their own evaluation and analysis of sourced websites using the analysis categories highlighted by the core reference literature. Students are strongly encouraged to use the Internet as their main source of design inspiration and ideas.

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<sup>2</sup> Appendix Three presents an outline of the course outcomes presented to students at the first lecture of the topic. The various weekly tasks highlight the relevant theoretical readings required and the tasks that ask students to apply the conceptual knowledge discussed in class to websites sources on the Internet.

When viewing websites they are encouraged to take on the identity of web designers able to differentiate good design from poor, see when particular design principles and techniques have been applied and model their own practices on websites that apply high levels of professional standards.

### Programme considerations

While this research does not foreground the curriculum as its site of study, the curriculum and its organisation is seen as a crucial component of the setting in which students have to learn about becoming web designers. Through an exploration of the nature of web design I am able to trace the underlying influences informing the curriculum organisation of the Certificate in MM Tech. I believe the epistemological differences that underlie how web design is perceived in the broader professional environment are mirrored in the curriculum structures of the programme<sup>3</sup> as illustrated on page 3.

### *Are you a web designer or developer?*

Any discussion about the nature of web design has to acknowledge the multiple perspectives on what web design is. The discussion that follows will attempt to clarify and explore these multiple and at times contested vantage points with the goal of illustrating how this impacts on the content and subject orientation of the MM Tech programme.

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<sup>3</sup> This is an interesting discussion as the scope of the study did not include a detailed exploration of the MM Tech programme curriculum development process or its organization and structure. As one of the founding staff members of the programme, I can attest that the curriculum and its underlying epistemological basis has developed organically over the past five years. As students started to go into industry either because of in-service training or as graduates, the value or disadvantage of certain skills, content, teaching approaches etc ... were reviewed, reassessed and so the curriculum focus was refined. A major driving force for the programme was our attempt to create a niche area via our technology focus, as opposed to the many courses and programmes that took as very specific graphic design orientation to multimedia. The technology focus was increasingly sanctioned by industry and by our third year of operation became the key framing mechanism for content inclusion and pedagogic practices. Unfortunately the programme has never formally documented its curriculum development process so no official document is available for closer scrutiny. Many of these developments have however been noted in annual programme review meetings.

A common distinction among the web design and Internet<sup>4</sup> communities and literature in the field, is that of viewing the act of web design from either a technical focus, as in web development, or from a visual or aesthetic perspective, as in web design<sup>5</sup>. The Skills subject and the web design topic, while adopting the latter view, however takes a holistic view of website design echoed by key experts in the field Lynch and Horton, who suggest that “ ... today’s Web designers are also information architects and usability engineers, and user-centred design approach is the key to a successful Website” (2001:xi). In many respects this web designer/web developer division is reflected in the aesthetic and technical division noted above and illustrated earlier. This division is mirrored in the subject focus of the MM Tech programme, with the content focus of ‘Skills’ primarily directed at developing web designer skills and competencies.

### *The multiplicity of web design*

While this thesis and indeed the Skills subject takes a specific view of web design as discussed above, the field of web design is anything but singular, static or homogeneous. Rather as the graphic on page 3 illustrates, it is a highly variable, dynamic, fluid, complex and multiple environment riddled with conflicts and contestations within and between its multiple parts. These conflicts constantly act to challenge, shape and accommodate the practices and activities of those recognized as being part of its fold. The diagram seeks to illustrate the idea of the web design environment as consisting of multiple and diverse membership groups. It further signals the main distinction between the identity roles of web designer and developer. This distinction is then appropriated into the aesthetic and technical divide noted in the MM Tech curricula.

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<sup>4</sup> An aspect that requires some clarification, particularly for those not familiar with the web design environment, is the necessary differentiation between what is called the World Wide Web,(commonly know as the Web) and the Internet. Often these words are used interchangeably to mean the same thing, when in fact they are different entities. The Internet is used to refer to the large groups of interconnected computers all over the world, which includes newsgroups, e-mail and the Web. The Web is the term used to refer to the graphical or illustrated part of the Internet i.e. Websites (Willard, 2001). The Web has become a key publishing medium with commentators quick to assert that “... no communication device is more inexpensive or far reaching ... ” (Lynch and Horton, 1998:ix).

<sup>5</sup> This distinction might suggest a rather simple dichotomy into two homogeneous groups; however in reality a variety of sub-groups are active. The Web development arena tends to refer to professionals working essentially with specific web authoring tools and primarily concerned with the technical functionality of the site. Within this arena a range of specialism that relate to the preferred programming or mark-up languages and authoring tool one has expertise in and thus use to create and build the website e.g. Java, Javascript, Flash, PHP, HTML, XHTML, etc... Likewise for web design, some designers are concerned primarily with the design and creation of the various graphic elements of the site, others are more concerned with the content organisation, while others specialize in the overall communication function of the website.

### Curriculum structure of the certificate programme

Currently MM Tech offers two qualifications: The National Certificate in Multimedia Technology and The National Diploma in Multimedia Technology. The diagram on page 3 is illustrative of how the web design and development distinctions noted in the broader discursive environment of web design is recontextualised in the curriculum structure of the programme. The curriculum borrows and appropriates many of the conceptual and practical ideas and orientations visible in the professional field of web design. Operating in parallel to the designer/developer distinctions is the content and knowledge focus separation of the curriculum into an aesthetic and theoretical framing as opposed to a technological and procedural focus. The distinction in relation to the knowledge focus is clearly evidenced via some of the assessment practices of the Certificate course. An example of such a practice is the case study of this investigation, which was a joint assessment task between the 'Skills' and Application subjects, where students were required to design and produce a personal website. The brief<sup>6</sup> indicates that the assessment criteria for 'Applications' foregrounds technical competency noted in

... the use of small letters for your tags, doctype definition used, indenting your code, comments, using descriptive names for your images and pages in small letters only; working links and using sensible folder names and the use of tables according to the spec s ... (2005 'Skills' and Application Brief: 2).

In contrast the assessment practices in 'Skills' favours the application of theoretical knowledge with strong consideration of visual and aesthetic dimension, which in the case study example relates to website design. The assessment criteria highlights visual and graphic design "Aesthetic Appeal, Originality and Creativity, Page Elements" along with a reference to classroom theoretical discussions " ... I will check that all the required elements as discussed in class are present on your site".

### *Characteristic elements of the curriculum*

Conscious that this study does not foreground a curriculum analysis of the Skills subject or MM Tech programme, it does acknowledge the value of being able to identify some of the curriculum's characteristic elements. Casting a Bernsteinian lens

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<sup>6</sup> See Appendix Two

over the MM Tech, its curriculum would be characterized as a collection type as opposed to an integrated curriculum. Bernstein's classification, which refers to the relationship between contents and the nature of differentiation between content and the degree of boundary maintenance between content, underlies this characterization (Bernstein, 1975).<sup>7</sup> A classical collection type curriculum would be characterized as follows: contents are strongly bounded and separate from each other with fixed time periods; the syllabus of each content is the sole responsibility of those who teach it with each teacher within prescribed limits allowed to determine his/her teaching practice. The underlying pedagogic theory is didactic with maximal control of knowledge transmission residing with the teacher (Bernstein, 1975: 81-82).

As the 'Skills' lecturer the curriculum has been my sole creation, with all the control for the content inclusion, the pedagogic approach informed by my personal perspectives and philosophical orientations<sup>8</sup>. The same can be said for all the other subjects in the programme, and therefore MM Tech fits the classical collection curriculum mould. I believe it is this strong classification that ensures the maintenance of the distinction between the aesthetic and technical subjects. This distinction however creates noticeable problems when students new to the web design environment are required to design and build websites as will be seen in the analysis section of the thesis.

### Institutional considerations

Of the multiple macro level environment consideration, particular aspects have been isolated for exploration as I believe they impact directly on how access related pedagogic issues are defined in the micro level of my practice environment. One of

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<sup>7</sup> When using a Bernsteinian perspective to consider curriculum structures his concepts of classification (content and knowledge differentiation) and frame (pedagogic practice and structure) are often used, with the underlying notion of boundary strength seen as the cornerstone of these concepts (Bernstein, 1975). While the relationship between these concepts is recognized, the current analysis focuses on classification.

<sup>8</sup> Often in the curriculum development process and especially when a curriculum is characterized as a collection type as is the case with the MM Tech, the educational background of the lecturer influences the nature of the subjects they lecture. Thus the epistemological and pedagogic orientations privileged by individual lecturers are often a reflection of their academic and career backgrounds. The Applications and Electrotechnology lecturers, have an Electrical Engineering and IT qualification gained via technikon education. They have no formal work experience in the multimedia or web design industry. Thus the technical and applied focus they maintain in the content and assessment approaches to their subjects can be seen as a direct relation to this background. My academic background is that of a traditional liberal university education with a disciplinary focus on Education. While I have no formal career experience in the multimedia environment, I worked in print publication and instructional design before joining the MM Tech programme. Again correlation between my classroom practices and my educational background can be drawn – most notably my use of literature to frame the content discussion of web design. The fact that all the Certificate lecturing staff have no industry based experience is an interesting factor which I believe (and highlight in the Interpretative chapter of this thesis) has particular consequence for how pedagogic aspects of the programme might be framed.

these impact issues involves understanding how the historical background of CPUT (a recently merged Higher Education Institution (HEI),) rooted in a technikon framed knowledge orientation continues to influence the curriculum and pedagogic approaches applied in my classroom. These influences shape student and staff profiles and the pedagogic and content choices demanded by the curriculum structures espoused by the MM Tech programme.

### *The legacy of Peninsula Technikon*

MM Tech's historical location as part of Peninsula Technikon (Pentech)<sup>9</sup> predisposes it to a particular demographic profile and cultural, political and curriculum agenda. These sentiments are echoed by Jansen when discussing the changes in Higher Education (HE) in the first post apartheid decade. He notes that mergers have failed to alter the demographic profile of academic staff while

... 'institutional cultures' of higher education have remained more or less the same. Institutions still bear their racial birthmarks in terms of dominant traditions, symbols and patterns of behaviour that remain distinctive despite the broader changes sweeping the higher education landscape (Jansen, 2004:311).

### *Catering for educational and political disadvantage*

A particular political and cultural agenda that defined Pentech and strongly informed its academic practices continues to embed itself within the MM Tech programme. Pentech's apartheid and early post-apartheid political status as an 'access institution' saw its student profile drawn predominantly from black<sup>10</sup> and schools<sup>11</sup> previously regarded as disadvantaged<sup>12</sup>. Access here is used to refer to the conscious political

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<sup>9</sup> The merged institution comprises the old Cape Technikon and Peninsula Technikon distinguished by its geographic location in Cape Town and Bellville respectively, and its apartheid racial history that differentiated the institutions along racial lines. In this respect Cape Technikon was regarded as a historically White or Advantage Institution (HWI) while Pentech was a historically Black or Disadvantaged Institution (HBI). Until 1995 Pentech was administered under the 'coloured' 'own affairs' education ministry (Cooper, 1993:10). The intention behind Pentech was therefore to cater for the needs of the 'coloured' population mainly centred around Cape Town (d'Almeida, Manhire and Atter, 1994:437). These distinguishing features, while not discussed in any length in this thesis, do however flavour the contextual realities experienced with respect to staff and student profiles, classroom practices, management practices, cultural and social ethos and values and resource infrastructure, to name but a few.

<sup>10</sup> In this thesis the term black will be used to refer to students/staff classified as either Coloured or African using Apartheid era racial segregation terms.

<sup>11</sup> Apartheid education also provided for a separate racialised education system and separate departments to cater for the needs of different racial groups. African students were catered for by the Department of Training (DET), coloureds via the House of Representatives (HoR) and white pupils by the House of Assembly commonly referred to as ex-Model C. To characterize the schooling background of students the department acronyms are often used.

<sup>12</sup> A disadvantaged education background is often associated with schooling previously administered by HoR and DET departments. It is then suggested that students entering HE from these schooling backgrounds tend to be inadequately

decision taken by many HBI's in the 1980s and 1990s to provide access opportunities to students irrespective of their racial, schooling or economic backgrounds often in direct defiance of apartheid legislation. Factors such as admission criteria, fee structures, bursary and scholarship provisions, and supplementary academic development programmes (seen in the South African context as support classes for disadvantaged students) all acted as ways in which access to HBIs were activity created (In Herman, 1998). Walters summarizes these concerns by noting that the discourse of social justice, redress and equity were key drivers of higher education policy directives and debates in the early post-apartheid South Africa. Here issues of access were interlinked with those of equity and redress concerns for both students and staff, with an implicit push for greater social justice for those historically disadvantaged by the political system (Walters, 2001:12).

Political and cultural notions of access were recontextualised into the academic approaches privileged at the ex-Pentech campus of CPUT. Access in an academic and curriculum sense came to mean lecturers actively engaging in pedagogic strategies that helped to ensure that students were successful in their studies and able to understand the disciplinary environments of their course of study. Many departments at the institution (including MM Tech) actively engage in curriculum development initiatives that foreground academic development programmes, academic literacy strategies (including extra academic writing classes), extended curriculum strategies and teaching approaches that took into account students schooling backgrounds that might not have suitability prepared them for the academic environment of HE. This strong tradition of facilitating academic access via pedagogic strategies is an orientation that informs my work as a lecturer on the programme. This orientation underscores my reflective practitioner engagements and directs the underlying aim of this study which seeks to explore how access opportunities into the academic environment of web design can be enhanced. This access philosophy is present in the Skills subject when the idea of creating access to the academic literacies (viewed here primarily as academic essay writing) regarded as crucial in HE environments is foregrounded. The content

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prepared by their previous schooling for the demands of the new learning environment (Walters, 1999). Herman, when recounting the schooling experiences of most African students, points to "... poor teaching conditions, under-qualified teachers, inadequate facilities ... (which combined) have contributed to poor matriculation results" (1998:42).

engagement for the first six to seven weeks of the new academic year is described as follows.

Information and academic literacies are regarded as the core skills to ensure academic success in a higher education environment. ... explores the nature of information and academic literacy and assist in the development of competencies ... methods and procedures of presenting academic information in the form of essays (2005 'Skills' Learner Guide:4).

I believe that this is one of the ways in which the institutionally supported academic access agenda is strongly underscored in the 'Skills' curriculum.

### *Epistemological basis of MM Tech within Technikon education*

The incorporation of the name University of Technology (replacing 'technikon' which Staak (2004) suggests is a "uniquely South African invention") signals the educational and knowledge orientation of CPUT as an institution. Jansen's (2004: 311) sentiments regarding the relative immobility displayed by newly merged institutions to change "deep-rooted beliefs and behaviours" rings true. This has been particularly relevant in relation to curriculum development with virtually no changes having taken place in the vocational and career orientated education focus practiced by the old technikon fraternity having taken place. Technikon provisions favoured the direction of curricula towards programmes and careers rather than disciplines (Pittendrigh, 1988:313). Again this is particularly relevant to MM Tech when considering that the broader multimedia disciplinary field can best be described as a hybrid collection of subjects. The knowledge area of multimedia has evolved from a diverse set of subject and disciplinary fields to include graphic design, communication, media studies, new media, information technology and electrical engineering (Hofstetter, 2001). I would argue along the lines advocated by Barnett, Parry and Coate (1999) that in many respects multimedia is a new field of study possibly created in response to professional needs and technological innovation. Thus the institutional and departmental environment informing the curriculum is still very much prescribed by an overtly practical, applied and vocational rather than a conceptual and analytical approach to the knowledge base and teaching often favoured in more traditional notions of university study. My position is therefore that the overarching educational outcome implicit in the curriculum structure of the course foregrounds the development of professionally competent multimedia technologists able to design and produce

multimedia products like websites and CD ROM's rather than a professional who engages in analytical evaluations and reviews of such products.

While debates about the meaning, values, ethos and positioning of universities of technology are continually developing, some commentators hint at a future where a break with the prescriptive vocationalism of the technikons might be possible.

Universities of technology offer a broad and critical education - one that enables students to engage with the consequences of science and its applications, and to question scientific ways of knowing ... (Winberg, 2004:4)

### Foregrounding my concerns

The description of the multi-layered contextual landscape of my teaching practice has uncovered a range of underlying tensions that exert various pressures on the academic environment that students encounter not only in the Skills subjects but in the MM Tech programme. If an underlying intention of this research undertaking is to uncover new and fresh insights into how access to this environment can be created for students, then a number of research interest and concerns need foregrounding. A core interest is the value of using Gee's (1990, 1996) concept of Discourse which he describes as "...ways of being in the world" and Kress's (2000) notion of interest to account for how students encounter and make sense of my classroom and the web design field described in this chapter. The intention of the analysis and interpretation sections of this thesis is to provide insights and understanding of the academic and professional Discourse of web design. This understanding can help to provide a link between these Discourses and pedagogic strategies within my context. By using Gee's (1990) definition of literacy as "mastery of a secondary Discourse", a conceptual link between literacy and Discourse is forged. In this regard the recognition of what counts as literacy, can be used as a means to signal student literacy levels in the professional and academic Discourses of web design. As the 'Skills' lecturer, I am primarily responsible for this recognition work. Establishing how literacy and more specifically academic literacy is constituted in the web design topic and the Skills subject more generally is further explicated in the study. The study therefore proposes that a broader conceptualization of academic literacy beyond academic writing that accommodates the notion of web design as a literacy practice is accepted. In this study attempts are made to consider access to web

design as being facilitated via the Skills subject which mediates the discursive practices of the professional field of web design as a result of a recontextualisation process. The two research questions posed by this study underpin this mediation notion.

1. How are Discourses reflected in the design decisions made by students in their personal websites?
2. What are the implications for web design literacy in an academic setting?

In Question 1 I attempt to describe how students make the web design decisions needed to construct their personal websites. The question assumes that the act of web design is informed by students' various Discourses and how they are used. I am not attempting to name these various Discourses, although at certain points in the research discussion it may be necessary to do so. By placing the focus on 'how' Discourses rather than 'what' Discourses are reflected in students' web design decision making, insights about student access into the web design field can be provided. A procedural rather than classification focus of the questions intent is therefore foregrounded. Question 2 redirects the gaze to the pedagogic context and considers how the recontextualisation process can be use to understand and facilitate more effective access strategies to the web design field. I believe that answering these questions will not only shed light on the concerns raised above, but will also provide compelling insight to the 'problem' of access noted at the start of this chapter.

### **Thesis map**

#### **Chapter two – The theoretical framework**

In this chapter the theoretical concepts that assist in answering the main research questions are explored. Gee's concepts of 'Discourse' and 'literacy' provide the main conceptual framework to describe how students engage with the web design academic and professional environment.

#### **Chapter three – The research methodology**

This chapter motivates the use of a qualitatively informed interpretative case study as research design. The participant selection strategies, methods for data collection and the specific approach to intertextual analysis used are described.

**Chapter four – Analytical Findings – The websites as performance**

In this chapter student websites (which are the study's unit of analysis) are analysed. The websites are presented as evidence of student performance in web design. The analysis seeks to identify the intertextual aspects that inform student design decision making in the web design process.

**Chapter five– Analytical Findings – The interview as meta-knowledge**

Evaluative insights into students design decisions when creating the websites are explored in the content analysis of semi-structured interviews with student. Two themes are identified that allow inferences regarding students' levels of meta-knowledge to be drawn.

**Chapter six – Interpretations**

This chapter provides answers to the research questions posed by this study. Some interpretative insights into the ways in which Discourses shapes the web design decision making process for students are made. Suggestions are made about the notion of recognition of web design practices and meta-knowledge and their relationship to pedagogic practices.

**Chapter seven - Conclusions**

The final chapter addresses the implications of the study considering some tangible amendments effected on the web design topic. The study concludes by suggesting a valid pedagogic philosophy to mediate the access possibilities for students completing the Skills subject.

**A post-script – Reflecting on the hidden implications**

In this chapter I have created space to account for the personal journey this research process has unwittingly taken me on. The post-script allows me to account for personal biases uncovered by the study, which create the opportunity to challenge and reconstitute some of my practices in the hope of creating more equal access. The value of creating the space for student voices to be heard is strongly reinforced.

The next chapter explores the theoretical concepts deemed crucial in the process of addressing the above questions and framing the analysis and interpretation of the research investigation.

University of Cape Town

# Chapter 2

## The Theoretical Framework

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The Introduction sketched a picture of my practice environment that highlighted a multilayered and complex setting. Furthermore this picture illustrated features of what I teach (web design subject) and how I teach it (the pedagogic practices used and the impact of the MM Tech's curriculum structure). The conclusion identified some core concerns related to the relationship and connection between these two features i.e. the professional and disciplinary field of web design and the pedagogic and curriculum practices of web design. I suggested the research was concerned with how students encountered my practice environment and how their experiences could be used to inform future strategies and approaches applied to my teaching, with the hope of creating better access to the web design and pedagogic fields. The research questions are framed to investigate these concerns and I use a set of conceptual tools to achieve this task. This chapter seeks to present an argument for the use of the selected theoretical constructs that will enable me to analyse my research data, draw insights and then answer the questions raised above.

The chapter employs a structuring mechanism guided by the underlying conceptual basis of each of the questions. The first question *How are Discourses reflected in the design decisions made by students in their personal websites?* relates to the field of web design which students are asked to engage in. Moreover it hints at uncovering the issues that inform their design decision making. Here concepts that allow me to describe the web design field, its values, rules, conventions, identities, the practices and tools students bring along to this environment and what might inform their design decision making are all deemed useful. These theoretical concepts include Gee's (1990, 1996) Discourse, primary and secondary Discourses, web design Discourse and Kress's (2000) notion of interest.

The second question, *What are the implications for web design literacy in an academic setting?* raises concerns about the pedagogic environment. Concepts considered valuable are those that define and account for the academic practices and skills required in this environment (literacy, academic and visual literacy), how they are recognized and obtained and Gee's (1990, 1996) concepts of recognition, acquisition and learning.

### Discourse

The theoretical concept of Discourse (Gee, 1990, 1996) is the primary conceptual tool used to define and make sense of what has up to this point been referred to as the academic environment or field where students in this study are located. Gee described Discourse as

... a socially accepted association among ways of using language, other symbolic expression, and 'artifacts' of thinking, feeling, believing, valuing and acting that can be used to identify oneself as a member of a socially meaningful group or 'social network' or to signal (that one is playing) a socially meaningful 'role' (1996:131).

Gee's conceptualization of Discourse has its starting point in the recognition of the social nature of language, but like Foucault (In Pennycook, 1994 and Hall, 2001) his focus is not only on language, suggesting that language alone is not sufficient to create meaning in a communicative event. Gee's position on Discourse suggests that it is distinct from more linguistic conceptualizations (that sees it as a form of language use (In van Dijk, 1997)) and moves beyond language use to encompass multiple ways of being within a social context. Thus language is viewed as only one aspect of what discourse is. Gee uses the uppercase 'D', e.g. 'Discourse', to suggest the above conceptualization while the lowercase 'd', e.g. 'discourse', signifies the use of discourse in a linguistic sense. Discourses are therefore " ... ways of being in the world or forms of life which integrate words, acts, values, beliefs, attitudes and social identities as well as gestures, glances, body positions and clothes" (Gee, 1996:127).

Gee likens Discourse to a type of "identity kit" that provides the user with a complete set of appropriate ways to talk, write and act in a particular social role so that others

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<sup>1</sup> This thesis will use the uppercase Discourse to denote the use of Gee's conceptualization of the term.

will recognize your doing, saying and acting as valid and appropriate (Gee, 1990, 1996). Membership of a particular social group or network is often signaled and made visible via words, actions, values and beliefs, which constitute Discourse. Through Discourse we display this membership with others who share common sets of interest, beliefs, goals, values and activities (Gee, 1996:128). Discourse for Gee embodies “... the tacit, normative values and marking of membership or satisfactory behaviour” (In Morrison, 2001:80).

Some additional points regarded as important by Gee (1996) further summarize what Discourses are and how they function.

Firstly, Discourses are “inherently ideological” as they involve a set of values and viewpoints about the relationship of people and the distribution of social goods. At the most basic level Discourse signals who is an insider and who is not and who is regarded as ‘normal’ and who is not. Secondly, Discourses are “resistant” to internal criticism and self-scrutiny and further define what might count as acceptable criticism (Gee, 1996:132). The Discourse identity is not only internally defined, but has a strong external regulating mechanism. Thus Discourse position or identity is defined in relation to opposing Discourses. Discourse always operates in opposition to or at the expense of others. Thus any Discourse concerns itself with certain concepts, viewpoints and values that will marginalize those held by opposing Discourses. Finally, Discourses are related to the unequal distribution of social power and the hierarchical structure of society. The “control over certain Discourse can lead to the acquisition of social goods (money, power, status) in society” (Gee, 1996:132). Discourse can therefore provide differential access to social goods in society resulting in the emergence of dominant Discourses (Gee, 1996:132).

### Using Discourse ‘differently’

Gee’s conceptualization of the term Discourse is linked to the social theory traditions and is used to refer to social practices. Social theorists view Discourse as an abstract term that can be used to explain and describe social, political and cultural formations. Discourse as noted on page 18 is also defined and used extensively as a linguistic conceptualization. Practitioners who use the linguistic formulations tend to see

discourse as “forms of language use ... ways of speaking” (van Dijk, 1997: 1) or to signal different types of language use in different social situations, for example classroom discourse or job interview discourse (Fairclough, 2003). It is my contention that it is this linguistically framed understanding of the term that is commonly associated (in the academic literacy communication) with the use of the term discourse. As such the social theory conceptualization stressed by this thesis needs to be distinguished from its linguistic counterpart.

### Using your Discourses

Other theorists using a socially framed understanding of Discourse that resonates with conceptualizations supported by this thesis are Kress and van Leeuwen. They see Discourse as “ ... socially constructed knowledges (of some aspect) of reality “(2001:4). Thus Discourses are developed in specific social contexts and in ways which are appropriate to the interest of the social actors in that context. (Kress and van Leeuwen, 2001). They continue by noting that people have several alternative Discourses with respect to particular aspects of reality. Dependent on the interest of the communication situation within which they find themselves, a particular Discourse deemed appropriate might be selected (Kress and van Leeuwen, 2001:20-21) So a student when discussing recent assessment marks with a particular lecturer, might select a formal, respectful but confident approach in an attempt to demonstrate the value of his or her argument to have a paper reassessed, while displaying his/her identity as a student. Taking an aggressive or confrontational stance might be regarded as inappropriate to the contextual realities of the situation where the lecturer holds more power, especially if the intention or interest of the student in this situation is to encroach on that powerful position. This suggests a degree of personal agency in the selection and use of Discourses in a social context.

Up to this point Gee’s position on Discourse suggests that it is distinct from more linguistic conceptualizations, in that it moves beyond language use and encompasses multiple ways of being within a social context. Secondly, it has a strong social location in that it provides the membership tools for access to social groups and social networks.

### Primary and Secondary Discourses

Gee (1990, 1996) suggests that two broad categories of Discourse are discernible in society, namely primary and secondary Discourses. Primary Discourse accounts for our first social identity that we become apprenticed into in our early life usually within the family context. It is our "...primary socialization as members of particular families within the sociocultural setting" (Gee, 1996:137). It marks us as belonging to a community of people who are all alike and "... informs our initial taken-for-granted understanding of who we are, who people 'like us' are, as well as what sorts of things we do, value and believe when we are not in public" (Gee, 1996:137). Gee (1996) further suggests that we acquire our primary Discourse via subconsciously being exposed to models and practices within a social group without formal teaching. It also serves as a frame through which all other Discourses are either acquired or resisted. While this frame will be responsible for shaping new secondary Discourses, at the same time it will be changed by the inclusion of new Discourses. Discourses are therefore not static entities; rather they are constantly being re-shaped by new and different Discourses (Gee (1996), In Alborough, 2004:6).

Secondary Discourses according to Gee "...involve by definition interaction with people whom one is either not intimate ... (and) taking on identity that transcends the family or primary socializing group" (1996:143). Secondary Discourses are therefore shaped and framed by contact with people who are outside the family community, for example school, work and sports clubs. The extension of values, attitudes, beliefs and language beyond that of the primary Discourse is facilitated through the interaction with these groups who are outside the family (Gee, 1990:152). Secondary Discourses can also be said to "... constitute the recognizability and meaningfulness of our 'public' more formal acts" (Gee, 1996:137). While Gee identifies and classifies Discourses into two separate entities, he is clear to acknowledge that the boundaries between primary and secondary Discourses are constantly being negotiated and contested in society and history (1996). At an individual level there will often be tensions and conflicts present between any two or more of a person's Discourses (Gee, 1996:145). Many of my students come from schooling backgrounds where they perceived as consumers or readers of magazines, books and school textbooks. When they enter multimedia, they

readers of magazines, books and school textbooks. When they enter multimedia, they have to deal with a visual communication environment of the web and see themselves not only as consumers of websites but also their creators. In such a context, one could see how possible conflicts might arise.

### **Web design Discourse – a secondary Discourse**

Up to this point the argument for using Discourse to account for the social practices and identities required and used in my teaching environment has been advanced. Primary and secondary Discourses were positioned as a way of identifying the range of practices, values and identities that students bring to the new academic and web design context. The discussion indicated that while individuals might have multiple Discourses, be able to select appropriate Discourses to meet the specific needs of a particular social context, there is often a state of tension and fluidity between their Discourses. Gee would argue that if students new to the academic and web design discursive environment experience a relatively conflict-free entry period, this would signal the existence of reduced tensions between the Discourses they bring to the environment and the ones they encounter in the Skills subject or MM Tech programme. The analysis and interpretation section of the study will consider if and how students Discourses inform their design decisions. What is still required is a description of what I have been calling the web design Discourse (WDD).

Discussions in the Introduction pointed to some explicit distinctions embedded in the WDD, namely the aesthetic/technical divide described on pages 6 and 7. It was argued that this division was mirrored in the curriculum structures and subject orientations of the MM Tech programme. I would like to take this argument further by suggesting that the visual and aesthetic framing privileged in the Skills orientation to web design has its roots in some crucial shifts in the ways in which Western societies are communicating. Through the exploration of this idea a more nuanced understanding of what constitutes the WDD within the context of this study will be advanced.

### Multiple ways of communicating

The concept of Discourse points to the idea that meaning making and communication can be realized through a multitude and mixed combinations of communicative modes and mediums (Kress and van Leeuwen, 2001 and Jaworski and Coupland, 1999). Anyone who has conversed with another person will recognize that a number of communicational modes and signals operate in that context. Not only do we consider what is said via verbal or linguistic speech, but we might also use hand gestures, look out for and use visual body language clues or evaluate the spatial (for example the distance between the partners) arrangements of the conversational environment. Multimodality, which the New London Group<sup>2</sup> suggests refers to the interrelationship of many modes of meaning, infers that meaning and communication can be expressed via one or a combination of at least five modes of meaning namely linguistic, audio, spatial, visual and gestural (Cope and Kalantzis, 2000). Modes are defined as a system of representation which have various rules and regulations associated with them (Norris, 2004). It refers to “ ... a regularized organised set of resources for meaning making, including, image, gaze, gesture, movement, music, speech and sound effect” (Kress and Jewitt, 2003: 1).

While the above example points to the acknowledgement that communication has always been multimodal, Kress and van Leeuwen (2001) argue that the communication landscape is increasingly being defined by notions of multimodality. There is thus a shift away from monomodality or the reliance, especially in education, on language in the form of writing as the sole means of representation and communication (Kress, 2003 and Kress and van Leeuwen, 2001). Reasons cited for the changes in the communication landscape experienced today are the rise of information and communication technologies (ICTs) and the shift to visual modes of communication (Kress, 1998:55). Kress’s (2003:9) metaphor of the screen of the computer as the “contemporary canvas” is an apt description of how the screen personifies the dominating influence of new ICT’s in both making this shift possible and directing the nature and form it takes.

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<sup>2</sup> A group of academics who met in New London, in the US to discuss and debate the educational implications of emerging understandings of literacy as multimodal social practices. (Cope and Kalantzis, 2000)

### The turn to the visual

While multimodality is an accepted part of the communication landscape, some scholars argue that the visual mode is increasingly becoming a primary means to negotiate this landscape (Kress, 1998, 2000, 2003; Kress and van Leeuwen, 1996, 2001 and Snyder, 1998). After a long period of dominance the book as the central medium of communication is now being replaced by the screen. Whereas the book and the page were the site of writing, the screen is the site of the image (Kress, 2003:9). Phrases like “page to screen” (Snyder, 1998: ix), “from book and page to screen” (Kress, 2003:5) and “world narrated ... to the world depicted and displayed” (Kress, 2003:2) are illustrative of the core manifestations of this transition. This shift to visual modes of communication does not however suggest that verbal and written linguistic forms are being replaced by visuals or images, rather that communicative expression and representation is increasingly privileging visual modes and media. Kress expressed this shift as follows:

The formed constellation of medium of book and mode of writing is giving way to the new constellation of medium of screen and mode of image...logic of image now dominates the sites and conditions of appearance of all ‘displayed’ communication i.e. of all graphic communication that takes place via spatial display and through the sense of sight ... (this) includes writing which becomes display orientated (2003:9).

### Technological impact on the visual

The “turn to visual” suggests Kress, interacts with electronic technologies in a number of ways (1998:56). Firstly, technologies’ especially those accessed via personal computers such as word processing, e-mail, hypertext or the Internet, have altered how communication both written and visual is produced, processed and used (Snyder, 1998). They make the possibilities for producing written text with strong visual aspects (via the ability to change the look of typefaces and fonts, the position of text on the screen using page layout and spacing) more accessible and more easily controllable. The development of ICTs is seen as having been made possible, and part of economic and cultural globalisation. Castells suggests ICT’s have been the decisive tool in the emergence of the new globalized capitalist economy of the last two decades of the twentieth century (2000 b). Secondly, these technologies make it extremely easy to combine a variety of modes of representation; thus sound, image and text can

seamlessly come together on a screen in the creation of a multimedia product (Kress, 1998).

For Kress the notion of multimodality is "...made easy, usual, 'natural' by technologies of multimedia" (2003:18). Indeed the whole field of multimedia technology had its beginnings in the convergence of the technologies of film, video, informatics, graphic and image design and manipulation and sound engineering into a single platform of representation, design and production (Hofstetter, 2001). In many respects the creation of an academic programme in the field of multimedia technology at CPUT in 2001 provides concrete evidence of both the shift to the visual and the central role of technological innovation.

Interestingly, while technological advances have created increasingly easy access to the world of multimedia production, Kress argues that technology alone is insufficient to produce a highly complex text as is possible in multimedia production. Rather "...high levels of multimodal competence based on knowledge of the operation of different modes and highly developed design abilities" are required (Kress, 1998: 56-57). This caution suggests that each mode of representation requires an understanding of how meaning in the context of that medium is expressed and how new effects are produced when they combine. Thus in the communicative environment of the Internet and websites, competencies in web programming and authoring tools are deemed insufficient to create an appropriate website. This argument provides the necessary support for the values, practices, competencies and ultimately the identity underscored by the WDD.

### **What is the web design Discourse?**

The various "... ways of being" a web designer which are advocated by the Skills subject are captured in Appendix Four and includes the following...

- Acknowledge that there are different kinds of sites (genres) which serve different purposes, and these types in turn determine the design decisions made;
- Apply and reconfigure design ideas or design elements borrowed from other sites rather than simply copying them directly;

- Ensure that their web design reflects a balance between creativity, innovation and functionality;
- Have a creative approach to the aesthetic aspects of the site design, but also have technical knowledge to make the design concept a reality and function properly.

This description of a web design Discourse was a direct result of this research undertaking and my attempt to explicate my own understanding of the Discourse. The main source for the document was the Web Design topic's outcome statements and content which evolved over the five years that I have taught the subject. While the content and its underlying practices were closely informed by relevant web design literature and experts in the academic context, the extent to which it matched the discursive practices of professional web designers was unclear. To ensure that this 'document' was a valid account of the Discourse, I believed there needed to be a match or alignment between how these two contexts viewed the Discourse. As a result a selection of Cape Town web designers (whose names are noted in the acknowledgement of the thesis) were consulted for comment. Their amendments and additions were accommodated and helped to shape the final draft included in Appendix Four. A key outcome of this consultative process was the confirmation of the symmetry between the values, practices, skills and philosophical orientation of web design practiced and taught in the 'Skills' classroom with the Discourse recognized in industry.

### **Interest - informing design decision making**

Now that the WDD has been accounted for the discussion needs to consider how student design decision making in the Discourse can be theoretically constructed. For this examination the concept of interest proposed by Kress (2000) is regarded as a meaningful way to understand how student web designers' decisions are fashioned. Interest for Kress attempts to account for how individuals in communicative or representation activity use a range of semiotic and other resources and then " ... choose the most apt forms, the forms already most suited by virtue of their existing potentials for the representation of our meanings" (2000:155) Kress suggests interest is personal, cognitive, affective and social and that it shapes the direction of the remaking. In this way the remaking on the one hand reflects individual interest and on the other, owing

to the social history and present social location of the individual, broad socio-cultural trends (Kress, 2000:156 and 1998:75). Kress (2000) further argues that because there is rarely a total 'fit' between our available resources, the demands of the communication situation and our intended meaning, the resources are always transformed. The web designers' interest is therefore embedded with the various discursive resources she/he has available, thus making the website a product of the designers interest which becomes a reflection of her/his Discourses. It also suggests the influence of the student web designers' agency in the design process and signals the possibility for transformation in the WDD itself.

Kress argues that the design process gives expression to the interest of the designer within the specific design environment. "Design is both about the best, the most apt representation of my interest and about the best means of deploying available resources in a complex ensemble" (Kress, 2000:158). A web designer's interest is strongly regulated by values embedded in the WDD like the privileging of either the technical or aesthetic, as is graphically illustrated in the diagram on page 3. Another core value underscored by the Internet (and similarly on the Web) and reflected in its development history, is that of sharing (Gurak, 2001). It is not uncommon that "Websites contain material gleaned from other sites as well as link to images, other Web pages, sound and text" (Gurak, 2001:42). Gurak continues by noting that "Creating a Website that copies the basic styles and format of another is not just a temptation but the way things are usually done" (2001:111). These kinds of activities of sharing and borrowing underlie what Gurak suggests is an underlying ethos of the Internet (2001). It is essentially this ethos which creates the potential for anyone irrespective of ability, skills, knowledge or training in design or development to create and publish a Website.<sup>3</sup> Larsen (1996:online) notes, the Web is awash with sites created by 10 year olds, housewives, human rights activists, news corporations, professional web designers and developers with limited editorial control and regulation.

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<sup>3</sup> While the Web does not operate around the more regulated and continually reviewed editorial standards governing the print publishing environment, increasingly sectors within the Web community are imposing self regulatory measures. Commonly these take the form of 'name-and-shame' review websites that critique and at times ridicule the site design practices of those publishing on the web (see [www.siteshatsuck.com](http://www.siteshatsuck.com)). Other review sites use the reviews as a means to teach good design principles (see [www.killersites.com](http://www.killersites.com)). There are also a number of forums in which designers can request reviews from their peers. Designers who want to be part of this forum have to adhere to various rules which include contributing to the review of other designers sites and reviews have to contain constructive criticism (see [www.sitepoint.com/forums](http://www.sitepoint.com/forums)).

Kress and van Leeuwen suggest that the process of design provides the “...means to realize discourses in the context of a given communication situation” (2001:5-6). Thus the design of a website can be seen to provide the link to the primary and secondary Discourses that surround the website designers in this study, as students will draw on, use or copy elements (like writing styles, language or images) from these Discourses and incorporate them into their newly designed websites.

### **Linking the research questions**

The discussion of Discourse and the secondary Discourse environment of web design, as well as how the concept of interest can link student design decision making with their Discourses and those encountered in the MM Tech context as sketched in the Introduction, serves to ground the theoretical conceptualization required by the first research question. As suggested in the Introduction, Question one accounts for *how students make design decisions in the web design environment*. The second research question redirects the gaze to the pedagogic context and addresses the issue of WDD recognition in this context. The idea of recontextualisation of the WDD for an academic setting is also considered important.

Bernstein’s (1990) concept of recontextualisation that describes how elements from one social practice (web design or the WDD) are appropriated into another (curriculum context of the Skills subject) is seen as particularly useful and is discussed in detail in the Introduction. In the process of placing the WDD into the context of the Skills subject a transformative dynamic occurs (Fairclough, 2003).

Question one therefore focuses on student web design decision making, while question two considers how those design choices are recognized in the pedagogic context. Recontextualisation acts as a mediating construct between the professional practices of the WDD and how pedagogic intervention can facilitate access to the WDD in the classroom.

### Concepts relevant to the pedagogic environment

The second research question, *What are the implications for web design literacy in an academic setting?*, proposes a consideration of the pedagogic environment of HE, how web design practices are recognized and the exploration of concepts relevant to this context.

Traditional perspectives on student success in HE use the term academic literacies to describe the kinds of practices (usually associated with reading and writing) regarded as valuable in an academic setting (Lea and Street, 1998, and Lillis, 2001). While the term has the potential to be 'conceptually loaded' – thus meaning different things to different people – it provides a way into the social and literacy practices of students in a Higher Education Institution (HEI) and is therefore useful to this study. A review of recent literature in this field points to the term literacy as signaling a focus on student essay writing skills (Lillis, 2001, Paxton, 2004, and Jacobs, 2005) but leaves a conceptual gap in attempts to explain how success in the academic setting of web design might be constituted. Consideration of a broader conceptualization of the notion of literacy holds some promise however, and the unpacking of this term will now be undertaken.

### The contested definition of literacy

The contested nature associated with definitions of literacy is well documented and acknowledged by authors in the field (Street, 1984, 1995; Ballard and Clanchy, 1988; Gee, 1996 and Gurak, 2001). Street's (1984) distinction between the autonomous and ideological models of literacy is perhaps the most well known theoretical articulation of this contestation. Autonomous models tend to favour a single, static view of literacy located in the technical and cognitive aspects of reading and writing that operates independently of social and cultural context. (Street, 1995). As Gurak contends " ... popular understandings of literacy often hearken back to ... biased, simplistic definitions, valuing reading and print over any other form of communication" (2001:13). However, the starting point for a broader definition of literacy needs to consider the arguments raised by what Street (1984) calls the ideological model of literacy. Street stresses that " ... those who subscribe to the ideological model do not deny the significance of technical aspects of reading and writing, rather they argue that these

features of literacy are always embedded in particular social practices" (1995:151). The ideological model of literacy is closely associated with the New Literacy Studies (NLS) group of scholars (such as Street, Barton and Hamilton, Gee, Lillis, Kress) who study literacy in its social context. Much of the NLS's work is based on the assumption that "... literacies are multiple rather than singular and take on divergent forms depending on the context which sustain them" (Moss, 2001:146).

Central to the NLS approach to literacy is the term *literacy practices* (Tusting, Ivanic and Wilson, 2000). Literacy events and practices are distinguishable from each other, events are seen as empirical and observable activities where literacy has a role, usually involving written text or where reading and writing is central to the activity (Barton, 1994 and Barton and Hamilton, 1998). Literacy practices are considered however, to account for what people do with literacy and include values, attitudes, feelings and social relations (Barton and Hamilton, 1998:6-7), hinting at a possible connection with the concept of Discourse.

### Literacy and Discourse

Interestingly Gee (1990) argues that only within the context of Discourse can a viable definition of literacy be achieved. Gee's definition of literacy suggests that it is "... mastery of, or fluent control over a secondary Discourse" (1990:153). When reviewing what might constitute literacy, Gee is clear that there are only 'fluent speakers' and 'apprentices'. No allowances for being anything less than fluent in a Discourse is made. Not being fluent identifies one as a beginner or apprentice, otherwise you are regarded as not "being in" the Discourse. By using Gee's definition of literacy, the analysis of how my students function or use the WDD can be used to signal their status in the Discourse. Thus low levels of functionality or fluency would confer a beginner or apprentice status, while complete control or fluency would suggest a status of being 'in' the WDD.

Gee also highlights that literacy is always plural, as we have many Discourses, by using the various 'props' in the Discourse one is able to establish definition for other sorts of

'literacies' for example visual literacy, Internet literacy, Web literacy, multimedia literacy (Gee, 1990).

### Impact of the visual on literacy practices

Snyder contends that the move from page to screen (discussed on page 23) has signaled the emergence of new literacy practices, that include the visual means of communication and the technologies that make their display and dissemination possible (1998:xxv). Increasingly the visual is coming to have a largely informational function; the structured, social, political and communicative facets of images therefore also need to be acknowledged in addition to their expressive and aesthetic function (Kress and van Leeuwen, 1996:18). Thesen notes " ... that not only are the functions of visual and verbal modes changing, but also the boundary between the two is increasingly difficult to detect" (2001:134).

### What is visual literacy?

A central position advanced in this chapter (and highlighted in the Chapter 1 when considering the visual and aesthetic quality of the web environment) is the importance of visual communication practices generally and specifically within the context of multimedia and web design. Definitions of visual literacy carry the same contestations as those identified for literacy. A major distinction is noted between more cognitively and technically framed understandings i.e. " ... learning to read and writing using visuals" (In Rezabek, 2005: 19) and the socio-cultural conceptualization that stress the ability " ... to decode, comprehend and analyse the elements, messages and values communicated by images" (Burns, 2006:1). The role of the image has become particularly salient in our more visual culture and is an increasing requirement of being visually literate (Callow, 2006). However an inclusive definition of visual literacy should accommodate a broader concept of the visual mode as is advanced here using the International Visual Literacy Association definition, "A visually literate person can "examine, extract meanings and interpret the visual actions, objects and symbols that he/she encounters in the environment" (In Smolin and Lawless, 2003:571).

### Visual literacy and education

The thesis recognizes the above definition as it provides the necessary social and critical conceptualization of the term while drawing attention to the urgency of creating opportunities for students to gain its fluency in the educational setting. This is a sentiment which is strongly expressed by other scholars (Thesen, 2001, Kress and van Leeuwen, 1996). In this new context where the visual conveys information and meaning through the technological medium of the screen (via medium of the computer or television, and in the HE environment via the pages of a Website on the Internet), Kress and van Leeuwen's warning that " ... not being visually literate will begin to attract social sanction" is one that cannot be ignored (1996:3 and cited in Thesen, 2001:135).

Assumptions about the unproblematic translation and understanding of meaning from one semiotic mode to another , e.g. verbal or written to visual, or from one information source to another e.g. books to the Internet , are somewhat naïve. The conception and use of the term 'digital divide'<sup>4</sup> used to express the range of disparities that exist within the online community and how the Internet as an information and communication resources requires its own form of 'literacy'<sup>5</sup> to enable those who use it to extract meaning (Norris, 2001 and Castells, 2000).

... the knowledge work done on the web is always associated with a particular, highly specialized domain and requires specific sets of literacies or communication practices ... These can include knowledge of the domain and its discourse, academic conventions, written English and Western visual and interface design (Walton and Vukovic, n.d:1-2).

### Literacy and Discourse recognition in the web design Discourse

If literacy is defined by ones fluency in a Discourse, how is this expressed in the web design Discourse? Some key distinctions raised earlier on page 6 associated with identity (web designer or web developer) and values (sharing) signaled the notion of recognition. In the seemingly open, democratic and sharing environment of the web,

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<sup>4</sup> Norris's understanding of the 'digital divide' points to "...a multidimensional phenomenon encompassing three distinct aspects" (2001:3). These aspects highlight the differential access to the Internet between industrialized and developing societies, the gap between what is termed the "information rich and poor" within each country and finally how within the online community some are more able than other to use digital resources to "...engage, mobilize and participate in public life" (Norris, 2001:3).

<sup>5</sup> Gurak introduces a concept called cyberliteracy to suggest a set of concepts and critical views required for understanding the Internet today. Being cyberliterate assumes an ability to recognize the consequences of technology use and the choices we as individual have for how we allow the Internet to be part of our lives (2001:3-7).

recognition becomes an important mechanism for distinguishing the values, beliefs, attitudes, skills, knowledge and training informing the act of website creation and publication. Recognition in the academic setting is also important for teachers who have to recognize and validate student work.

Gee suggests that in “ ... any modern technological urban based society ... ”, there are “innumerable Discourses” (1999:17). Recognizing your membership of specific social groups however, suggests that you are able to recognize groups and networks where you do not have membership as well as others that lack membership to your own groups and networks. Discourses therefore create ‘social positions’ or perspectives that allow people to respond in certain characteristic, historic and recognizable ways that are mixed with their own individual style and creativity (Gee, 1996:128).

In order to “pull off” a Discourse, ( as with the WDD discussed on page 25) you need to use language, values, action, interaction, beliefs, symbols, tools, objects etc... in such a way that it is recognizable as similar enough to other performances. When these performances are not recognizable Gee argues you are not ‘in’ the Discourse (1999:18). Having the status of a Discourse ‘insider’ or ‘outsider’ depends on the individual’s fluency or whether the Discourse performances would be recognized. The nature of the web design on the Internet predisposes it to particular recognition attributes (described on pages 7 and 25-26) which include that of a further common distinction of ‘professional’ and ‘amateur’. My argument suggests that in order to be recognized as a ‘professional’ web designer, my students have to ‘take on’ the web design Discourse espoused in Appendix Four. The synergy between how industry and the academically framed notion of professional web design practices are viewed is contained in the WDD and also confirmed by the discussion earlier in this chapter.

While recognition work can be both conscious and subconscious, it shares a reflexive relationship to Discourses in the real world, in that they create each other (Gee, 1999:20). The subconscious nature of this recognition work is often seen when experienced web designers (who would have mastery of the WDD) view websites. At a

glance they can recognize an 'insider' or professional from an 'outsider' or amateur creation.

Gee goes further by suggesting that one can have several Discourses recognized at the same time (1999:21), thus confirming the multiplicity associated with the notion of Discourse. Furthermore an individual might have membership to multiple Discourses at a given time and select the best available Discourse for the contextual realities being experienced, as the notion of interest outlined earlier (pages 26) suggests.

### **The acquisition and learning continuum**

In accounting for how people become members of their Discourses, Gee offers the " ... continuum of acquisition and learning" (1996:138). Acquisition for Gee refers to the " ... process of acquiring something usually subconsciously by exposure to models" (1996:138). Acquisition usually takes place without formal teaching where the individual within a specific social groups gets to practice and experiment with the ways of being in that Discourse (Gee, 1996). This acquisition process is likened to a process of apprenticeship and social practice. Often in this process assistance and support is provided by those who have already mastered the Discourse (Gee, 1989:7). Gee argues that the mastery of any Discourse can only be achieved via acquisition rather than overt teaching (1996:144 and Gee in Ridley, 2004). This links to how primary Discourses are acquired as raised on pages 19 and 20.

The learning pole of the continuum is regarded as " ... a process that involves conscious knowledge gained through teaching ... or through certain life experiences that trigger conscious reflection" (Gee, 1996:138). The key determinant here is that the process involves reflection and analysis and invariably the attainment of a certain level of meta-knowledge (Gee, 1996). By using the continuum metaphor to locate the learning or acquisition of a Discourse, two important aspects are highlighted. Firstly, it suggests a dynamic nature to taking on a Discourse rather than prescribing a set sequence of development stages to be attained. Secondly, the continuum can act as a signaling device that provides clues to how a Discourse was obtained. Coupled to this Gee provides a further explication of the clues that suggest how a Discourse was

obtained. When obtained via acquisition, an individual is better at performing that Discourse. However if learning is involved, individuals are better at displaying their meta-knowledge of that Discourse (Gee, 1990:145-149 and 1996:137-141). The usefulness of using the continuum is again illustrated when Gee (1996) notes that the acquisition and learning process fulfills a particular but equally valued role when a Discourse is attained.

The learning and acquisition continuum concept is particularly valuable in the classroom environment and suggests ways in which teaching practices can be constructed to achieve particular goals. On the one hand, if fluent performances of a secondary Discourse are an underlying aim, the teaching context must support a master-apprentice type relationship between the teacher and student. Opportunities for students to gain exposure to the models of the Discourse in “naturalised, functional and meaningful environments” should be facilitated (Gee, 1996:144). On the other hand, if the teaching aim is to ensure a high level of meta-knowledge where students are able to explain, explicate, analyse and critique, then learning activities should be foregrounded.

Translating the continuum into the context of the study, the following speculations about the teaching goals are advanced. Performance of the web design Discourse would be realized via the act of designing and creating a personal website. Students ability to explain and analyse their website design activities or those of others, signals meta-knowledge development. Gee (1990) argues that good teachers incorporate both of these teaching aims, i.e. acquisition and learning, into their classroom practices. In this respect while Question one of this thesis seeks to identify evidence of student performance and meta-knowledge of the WDD, Question two considers how the teaching environment can incorporate the recognition activities of students’ use of the web design Discourse to enhance pedagogic strategies. My argument suggests that using the acquisition and learning continuum to direct pedagogic practices is a useful means whereby the teaching and learning environment can facilitate a more effective approach to web design literacy.

### Conclusion

The main aim of this chapter has been to outline the theoretical concepts needed to answer the research questions of this study. The socially framed conceptualization of Discourse proposed by Gee (1990, 1996) was advanced as a productive means of describing the practices embodied in the web design environment. Furthermore Gee's definition of literacy as fluency in a secondary Discourse was accepted. This definition creates the basis whereby student practices of the WDD, the recognition of such practices and how the WDD can be obtained (either through acquisition or learning activities) in the pedagogic setting can be accounted for. A link between the two research questions was suggested that identified the notion of recontextualisation between one social practice (web design), another, the pedagogic environment of web design. Gee's acquisition and learning continuum was identified as a further connector between the research questions and their underlying theoretical constructs.

In the following chapter the framework guiding the research methodology of the study is described.

# Chapter 3

## The Research Methodology

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Research design is like a philosophy of life; no one is without one, but some people are more aware of theirs, and thus able to make more informed and consistent decisions (Maxwell, 1996:3).

When planning a systematic and informed research investigation of a particular phenomenon the notion of design is paramount. Scholars suggest a number of design models that either sequentially plot out the required steps to be followed (Grady and Wallston, 1988 In Maxwell, 1996; Bickman, Rog and Hendrick, 1998; Mouton and Mariais, 1990 In Durrheim, 1999c), or employ more non-linear or interactive (Maxwell, 1996) models. In particular, qualitative researchers advocate designs that tend to be more fluid. Research design according to this view is an iterative process that requires a flexible and non-sequential approach (Durrheim, 1999c:31 and Maxwell, 1996:4). In this study Durrheim's notion of "design" as a strategic outline that guides the research activity to ensure that sound conclusions are reached, is accepted (1999c:32).

### Framework Design

The design of this framework is guided by Durrheim who suggests that a

...researcher must make a series of decisions along four dimensions: 1) the purpose of the research; 2) the theoretical paradigm informing the research; 3) the context or situation within which the research is carried out; and 4) the research techniques employed to collect and analyse the data (1999c:33).

Furthermore it is suggested that while multiple considerations will result from the four dimensions, these must be woven together in a "...coherent research design in a way that will maximize the validity of the findings" (Durrheim, 1999c:33). The discussion will now explore the theoretical paradigm informing the research, outline the purpose of the research, note the research techniques used and comment on the contextual influences impacting on the research before concluding with a consideration of the validity and ethical concerns.

### Theoretical paradigm

Durrheim (1999c) suggests that paradigms act as perspectives that provide the rationale for the research and commit the researcher to a particular method of data collection, observations and interpretation. It could also be seen as a network of coherent ideas about the nature of the world and when adhered to, conditions the patterns of a researcher's thinking that further underpins his/her research actions (Bassey, 1999:42). As a result paradigms are regarded as being central to a research design as they impact on the nature of the research questions: " ... what is to be studied and the manner in which the question is to be studied" (Durrheim, 1999c:37). In addition Denzin argues that "Paradigms and perspectives structure qualitative writing ... .", thus hinting how paradigms influence the nature of interpretations made as a result of a research engagement and how those interpretations are finally reported (1994:501).

The theoretical paradigm that will guide my research is a qualitative one, embedded in the interpretative traditions, as opposed to a quantitative orientation. Maxwell contends that the core strength of a qualitative approach to research lies in its inductive approach, its specific focus on situations or people and the emphasis on words rather than numbers (1996:17). A distinctive quality of interpretative approaches to research is that people, their interpretations, perceptions, meanings and understandings are seen as the primary source of data (Mason, 2002:56) which are suitably contained in the personal websites and interviews which are the primary data sources of this study.

The focus on meaning is regarded as central to the interpretative approach (Maxwell, 1996). Meaning here is extended to include both participant and researcher; with the role of subjectivity and reflexivity "... the explicit recognition and examination of the researchers' role in the research process ..." (Terre Blance and Durrheim, 1999:482), being recognized with the interpretive research traditions (Potter, 1999:215). This acknowledgement is significant due to my dual role as 'teacher-and-researcher'. I account for my role in the research process throughout the thesis, but more specifically in the Introduction and Post-Script.

Furthermore interpretative research acknowledges that meaning can have an individual and collective location (Mason, 2002:56), therefore creating space for the notion of student agency in the design process, along with its more social underpinnings to be acknowledged. It is this underlying concentration on individual and social construction of meanings and the meaning making process that resonates strongly with the conceptual framework of this study. Here the concepts of Discourse (Gee 1990, 1996) and interest (Kress, 2000) are used to give attention to how student design decision making in their personal websites contains the traces of both social and individual construction.

### **Purpose of the study**

Durrheim suggests that researchers need to ask two questions about the purpose of the research: "... who or what do you want to draw conclusions about; and what type of conclusions do you want to draw about your object of analysis?" (1999c:37). Objects of the investigation or analysis are also known as units of analysis. Babbie (1989) suggests that in social science research four *different* units of analysis can be differentiated: individuals, groups, social organisation and social artifacts (In Durrheim, 1999c:37). The unit of analysis in this study is CPUT's first year multimedia technology students' personal website which is individually produced but can also be seen as a social artifact. A diagrammatic illustration of how the unit of analysis and the case study intersects with the MM Tech programme is provided on page 42.

### **The unit of analysis - personal websites**

Personal websites are primarily defined by the fact that they are devoted to the needs and interest of the individual. Core characteristics include a content focus on the individual's interest, hobbies, friends, family, achievements and possibly career, general freedom in the aesthetic layout, design and colour choices used, with the privileging of a graphic and image-intensive display of the content. The design of personal websites tends to contrast rather sharply with the more conservative and basic design themes used in corporate and business type sites. As a form of 'personal expression' the designer is given the freedom to experiment with layout, colour, image use and writing style that might not be regarded as appropriate in business or corporate type sites. As a result designers might select colours they like e.g. black and red, rather than colours deemed more suitable and appropriate for the web environment (blue and green are generally regarded as appropriate for business sites and would usually be paired with more muted complementary tones or white). It

should however be noted that while personal websites do cater for design freedom, if the designer is inside the field of web design, there will be an expectation that the values and principles as espoused by the WDD would be integrated into the site design. Various examples of personal and professionally produced websites found on the Internet have been included on the CD ROM under the title Example Websites. Here examples of how colour, design layout and writing styles differ between professionally commissioned and more amateur creations are illustrated.

The main questions the research study seeks to answer are *"How are Discourses reflected in the design decisions made by students in their personal websites?"* and *"What are the implications for web design literacy in an academic setting?"* The purpose of a research study is also reflected in the type of conclusions the researcher aims to make or the goals of the research. Durrheim proposes that there are three different ways in which the types of research can be distinguished: " ... 1) exploratory, descriptive or explanatory research, 2) applied or basic research, and 3) quantitative or qualitative research" (1999c:39). Using Durrheim's proposal it is suggested that the research study can be defined as largely as descriptive, basic and qualitative in nature.

This study is descriptive because it aims to describe a phenomenon accurately through narrative descriptions, but it also has exploratory qualities, as another goal is to generate speculative insights and raise new questions (Durrheim, 1999c:39). The phenomenon described is the nature of student design decisions as reflected in their personal websites created for assessment purposes. Speculative insights about how students use their Discourses in the design process will be suggested. As described on page 14 this procedural rather than classification focus is foregrounded by the first research question that asks *"How are Discourses reflected in the design decisions made by students in their personal websites?"* Questions about how pedagogic strategies can be utilized in light of the analysis are a practical outcome of the investigation and are reflected in the second research question that asks *"What are the implications for web design literacy in an academic setting?"* Durrheim notes that "...findings derived from basic research are typically used to advance our fundamental knowledge of the social world" (1999c:40). The 'basic' nature of the research resides in how new meanings or the confirmation of known understandings of how the concept of Discourse and literacy can be used to explain student entry into web design in the MM Tech context. The discovery of new meanings, understandings and relationships with regard to the possibilities for initiating changes to existing learning and teaching practices in the

Multimedia Skills subject or in the other subjects that make up the programme will be seen as a research outcome.

### Research techniques

Research techniques consider sampling, data collection and data analysis methodologies that will be employed in the research. To ensure design coherence the selection of techniques needs to interlink and be consistent with the research study's paradigm, purpose and context. Framing these techniques is the use of a case study as research methodology. A case study carries implications for the kinds of data that are collected and how that data is collected and analyzed (Gomm, Hammersley and Foster, 2000:3).

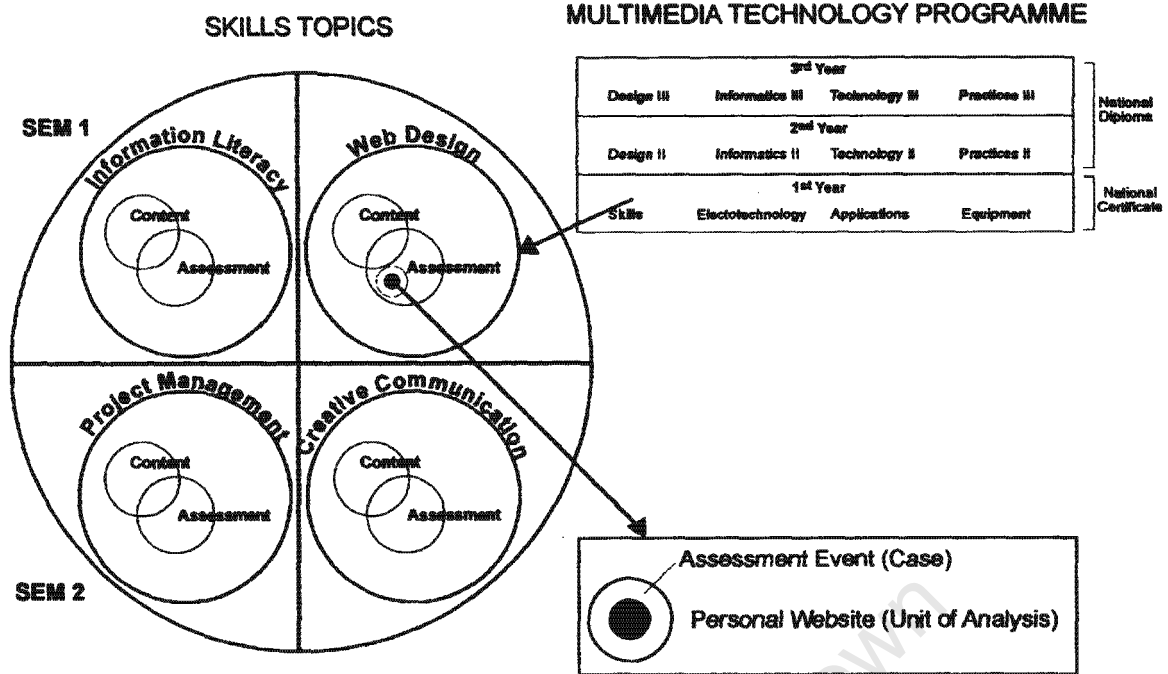
#### The case study approach

##### *Why use a case study?*

The key motivation for using a case study approach to conduct the empirical research is based on the rationale put forward by Merriam (1991). She suggests that a "...case study is often the best methodology for addressing problems related to educational practice in which understanding is sought to improve practice" (Merriam, 1991:xiii). An underlying aim of this research is to explore how access opportunities into the academic Discourse of web design can be facilitated via pedagogic interventions.

##### *What is a case study?*

In attempting to define what a case study is, Punch, in agreement with Miles and Huberman (1994 In Punch, 1998), concludes that a case can best be described as a "...phenomenon of some sort occurring in a bounded context" (1998:152). Merriam expands this by noting that a qualitative case study "... is an intensive, holistic description and analysis of a bounded phenomenon" (1991:xiii). A 'bounded phenomenon' could be identified as either a programme, person, process, social unit or institution (Merriam, 1991:xiii). Thus the personal website assessment event represents a 'bounded' process, the case, that produced the social artifact of the personal website which is the unit of analysis. The relationship between the context, the case and the unit of analysis is illustrated in the diagram on page 42.



An illustration of the contextual location of the case and unit of analysis associated with this research study in relation to the MM tech programme.

### Sampling

The main reason for the sampling process is to ensure a sample is “ ... meaningful theoretically and empirically because it builds in certain characteristics or criteria which help to develop and test your theory or argument” (Mason, 2002:124). Theoretical or purposive sampling, also referred to as non-random sampling (O’Leary, 2004 and Durrheim, 1999c), was used to select six student websites and their designers (selected after volunteers from the whole cohort of 1<sup>st</sup> year MM Tech programme), were invited to participate in the study. As a result the websites selected were able to display a range of skill, competency and performance in web design. Included in the sample were sites that were judged via the assessment process to be either ‘Highly Competent’, ‘Competent’ or ‘Incompetent’<sup>1</sup> and examples of both extensive and minimal personal content descriptions. Secondary factors involved in the sampling process sought to ensure that the designers (student participants) were representative of the general class demographics. Factors such as race, gender and secondary schooling backgrounds while considered, did not drive the sampling process. In addition students who were perceived as active classroom participants were regarded as possibly being more willing to discuss the nature of their design choices in an interview situation.

<sup>1</sup> A copy of the assessment rubric used in this assessment event is contained along with the assessment brief in Appendix Two.

### Data Collection

Yin (1984) and Punch (1998) suggest that the case study is characterized by its use of multiple sources of evidence or data. This study uses three types of sources for its data collection:

1) Documents: The personal websites<sup>2</sup> produced as part of an assessment requirement for the Multimedia Skills subject are regarded as the main documentary source. The websites are also regarded as the study's unit of analysis (noted on page 39 and illustrated on page 42.) Course design material, learner guides and course outlines for all the subjects in the first year curriculum acted as supplementary documents.

2) Interviews: Six student participants provided semi-structured interviews<sup>3</sup> using the participants' website as an entry discussion point.

3) Pilot Analysis: An exploratory discourse analysis of a sample of personal websites designed and produced by the 1<sup>st</sup> year cohort of 2004 was undertaken. This pilot analysis provided the following insights that later helped to inform the data collection and analysis approach of the final study:

- Assisted in the refinement of the assessment brief and criteria for the 2005 personal website assignment to ensure that rich and appropriate information was included in the sites produced.
- Suggested that the use of critical discourse analysis as an analysis tool for the websites would be fruitful in generating the kinds of insights deemed valuable to the research. This confirmed that students were using intertextual elements in their site design. I was able to establish the nature of students' use of manifest intertextuality and interdiscursivity and this strongly informed how these elements were identified in the study.
- Suggested possible interview questions for the semi-structured personal interviews with students. The pilot site analysis helped to identify salient web design characteristic like colour use, page layout and whether information relating to students family and social activities (i.e. signaling primary and secondary Discourses ) were contained in their websites.

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<sup>2</sup> The websites are regarded as a documentary source as the 'artifact' was collected at the point of the assessment moment and saved in that finite form. The websites used in the study were copied onto CD ROM and reflects the reality for the designers at the moment of the assessment submission. Furthermore these assessment submissions – i.e. the websites now form part of the subjects' assessment archives.

<sup>3</sup> The interview sequence plan with the general discussion topics is attached in Appendix Five.

*The research process*

The table below demarcates the sequence of the entire research process including the pilot analysis.

Research Activity	Time Frame
1. Proposal accepted	May 2005
2. Pilot analysis and review of 2004 personal websites.	April - May 2005
3. The process of naming the web design Discourse (an ongoing reflective and consultative process that spanned the duration of the research activity)	May 2005 – ongoing
4. Assessment event – Design of personal websites	June 2005
5. A review and selection of appropriate analysis tools for the study that focused on CDA, intertextuality and interview approaches and questions	July 2005
6. Data collection <ul style="list-style-type: none"> <li>○ Websites</li> <li>○ Interview</li> </ul>	July – October 2005 July - September October
7. Preliminary data analysis	November 2005
8. Interview transcription	December 2005
9. Detailed data analysis	January – February 2006

*The nature of documentary sources*

At this point some additional comments regarding the use and nature of documentary sources are necessary. In this study, the personal websites (discussed on page 39) produced by students are regarded as a documentary source. O'Leary suggests 'documents' can be distinguished from other data sources by the fact that they are " ... pre-produced text that have not been generated by the researcher" (2004:177). While documents are generally considered to be text based, this is not a prescription as commentators do include multimodal data forms like websites, photographs and graphic images in their discussion of documentary methods (Mason, 2002:103). Within this study, the proposition that these sources may " ... act as some form of expression and representation...of the social world, or that we can read aspects of the social world through them." is particularly relevant (Mason, 2002:106). The websites are regarded as documents constituting a construction of student designers meaning potential and seen as an example of multimodal texts that can include the use of visual, written or linguistic, spatial and audio modes to communicate or express meaning. It should be noted that while the study recognizes the websites as documents, they will not be subjected to a documentary analysis which would have entailed a detailed review, interrogation and analysis of the websites (O'Leary, 2004) rather than the current focus on an intertextual analysis of the websites described fully on page 51.

### Data Analysis

The overarching goal of qualitative data analysis strategies is to interpret non-numerical, multimodal data through a variety of procedures that typically include the generation of themes through a process of coding, annotating and searching for connections (O'Leary, 2004:199). O'Leary suggests that qualitative analysis seeks to build understanding through a process of uncovering (via induction) and discovering (via deduction) themes that traverse the raw data. The implications of these themes in relation to the research question are uncovered via the interpretation process (2004: 195).

The data analysis tools used in this study are a thematic analysis of the semi-structured interviews and an intertextually focused critical discourse analysis (CDA) of the personal websites produced by students for assessment purposes. The thematic analysis identified significant themes which are described in a rich descriptive narrative reflective of interpretative research engagements. Through a process of inductive and deductive reasoning relevant themes will be generated as a result of exploring words, concepts and to a lesser extent non-verbal cues from the interview process and transcripts. The interpretation process will further explore the connection between the themes generated by the interviews and intertextual elements uncovered in the discursive practices level of the critical discourse analysis. This aspect further provides evidence of student agency in the design process as the interviews ask students to account for their personal motivations for certain decisions made in their websites.

The CDA approach used in this study is informed by Fairclough's (1992) framework which proposes a three-dimensional method that incorporates the analysis of the textual features, discursive and social practices of the text under review as three distinct 'layers' for analytical entry. CDA as an approach links into the epistemological framework of the study with Titscher, Meyer, Wodak and Vetter advancing that " ... discourse analysis is *interpretative* and *explanatory* ... " (2000:146). A brief overview of the three levels of Fairclough's CDA model highlights the following:

1. Text dimension - seeks to explore and produce a language analysis of the text. Included here would be an analysis of grammar, vocabulary, modality, tenses, interactional control, politeness, ethos and visual textual features.
2. Discursive practice - involves an investigation into the nature of the processes of text production, distribution and interpretation.
3. Social Practice - concerns social analysis and how it shapes the nature of discursive practice. A key objective would be the identification of the discourses

impacting on the text including the ideological and hegemonic influences (Fairclough, 1992).

This study focuses primarily on the discursive practices level of Fairclough's framework, although Fairclough does suggest that the three levels noted above are inseparable except when being analyzed. One level can however be foregrounded, as in the discursive practices level of this study as it creates an avenue for accounting for the underlying social and discursive influences shaping the act of website design. The discursive practices level also seeks to unearth intertextual elements which are particularly relevant to this study. Intertextuality is embedded in the discursive environment of web design as noted on pages 26 and 27 as borrowing is highly valued. Intertextuality refers to how a text like a webpage is composed and draws on other texts. It therefore implies the "historicity of texts" (Fairclough, 1992:84). "Intertextual analysis enquires how these social and historical foundations are combined or modified by texts, and how discourse and genres blend together" (Titscher, Meyer, Wodak and Vetter, 2000:148). The intertextual analysis of the websites will allow for the identification of the various Discourses that are present, shaping and influencing design decisions made by students.

### **Contextual influences**

The final element to consider in Durrheim's informed notion of research design is the notion of context. This describes the researcher's attitude to the context of the study, i.e. the extent to which the researcher would want to control and manipulate the context, whether the context is ignored or whether the context is acknowledged as having an impact on human and social behaviour and studied as they occur naturally (Durrheim, 1999c:47-48). The contextual location of the study, i.e. the environmental and individual personal situational realities of the participants is regarded as a paramount influence in this study.

Two particular contextual concerns are firstly, the impact of the curriculum organization of the MM Tech programme on the content discussion and the pedagogic practices of the Skills subject. These concerns are discussed in detail in the Introduction. The second concern relates to the researcher-as-teacher, noted in the discussion about reflexivity. I see my 'insider' status in relation to the research setting as providing deeper insights and understandings, not only of the contextual realities experienced by students, but also the subtleties of the curriculum formulation and pedagogic practices

in the other subjects that make up the Certificate course. This deepened awareness enhances the types of interpretative comments I am able to draw from the analysis and suggests the possibility of drawing realistic conclusions for implementation. In the Post-script chapter some unforeseen influences of my 'insider' status is exposed, which once again highlight the value and importance of acknowledging the researcher's position in the study.

### **Validity and ethical concerns**

Researchers are constantly required to question " ... whether their research is designed to give valid and believable conclusions ... "(Durrheim, 1999c:35). Judgements about validity are about showing whether you are measuring or explaining what you are claiming to measure or explain via your research study (Mason, 2002:188). Validity is thus about the 'correctness' or 'credibility' of a description, interpretation, explanation or conclusion (Maxwell, 1996:87). Importantly within non-positivist research traditions, validity of the findings according to Maxwell " ... does not imply the existence of any objective truth to which the account can be compared" (1996:87). Validity concerns related to this study have been treated in the following ways: 1) attention to design coherence, 2) accommodating researcher 'bias' and reactivity and 3) addressing concerns around the extent of generalisability of the case study approach which is discussed below.

### **Research design coherence**

When working outside a positivist research paradigm, research coherence, which is suggested to be a broader concept able to accommodate non-positivist understandings of validity, can be used to evaluate validity concerns (Durrheim, 1999c:36). The methods employed to collect and analyse the research data suggests an internal logic, that results in an appropriate set of descriptions and interpretations of the research questions, that is relevant to the situational realities experienced in the research context.

### Researcher bias

A key feature of this research environment is the intimate relationship the researcher shares with the context and the participants as the lecturer of the Skills subject on the programme. Researcher 'bias', in the sense that the researcher selects data to match her existing theory or preconceptions, is often cited as a validity threat (Maxwell, 1996). From an interpretative standpoint this does not however challenge validity as the value of working and collecting data in context is stressed (Terre Blanche and Kelly, 1999:127). Hammersley and Atkinson (1983) stress that any attempt to eliminate the influence of the researcher is impossible (In Maxwell, 1996:91). Thus the goal in any qualitative study is not to eliminate this influence, but rather to understand it, account for it and use it productively (Maxwell, 1996).

Reactivity is a particular concern in interviews. Reactivity refers to the possible influence of the researcher on both the setting and the participants (Maxwell, 1996:91). Again Maxwell offers advice that proposes that rather than trying to minimize your effect on what interviewees say; one should try to understand how that influence is shaping what they say. The researcher must then account for how this affects the credibility of the inferences drawn from the interviews. Both researcher bias and reactivity call for the researchers' position to be made transparent. I have already highlighted my position to the research context in the Introduction and earlier in this Chapter on pages 46 and 47 when the contextual location of the study was described. However the researchers' reflexive account of the research process and its personal impact (see the Post-Script) provide the most compelling attempt to illuminate my position and its influence on the research process.

### Generalisability

The main difficulty associated with case studies is their lack of generalisability. However the research purpose of this study does not seek to implement the findings to other contexts (O' Leary, 2004:116). Rather as Stake suggests, generalizations within the case study approach can be made provided they are about "...the particular case or generalizations to a similar case rather than generalizations to a population of cases" (2000:23). This links to Maxwell's (1996) distinction between internal and external

generalizations, where the former relates to the generalisability of conclusions within the setting or the group studies, while the latter refers to those beyond the groups or setting (Maxwell, 1996: 96-97). The conclusions drawn from this case study investigation are seen as being applicable and relevant only to students' entry to the WDD as practiced in the Introductory Web design topic. Additional findings are only suggested for implementation possibilities within the internal context of the Multimedia Skills subject and the other subjects that make up the 1<sup>st</sup> year curriculum of the MM Tech programme. Thus only internal generalizations will be noted.

#### **Ethical considerations**

Of key ethical concern is the need to ensure interviewees consent to use their websites in the study. Participant consent forms were drafted and completed. Students consented to have their websites including content (which might contain their name, family background and other personal information) used in the final research report (see Appendix Six for an example used in this study). As the assessment required that students publish these sites on the Internet, the content was already viewable on a public platform. Anonymity, especially in relation to the other course participants (especially other staff), was achieved via the use of pseudonyms in the thesis to protect individual student identities. If any public reports on the research are made (especially to my colleagues) interviewee comments will not be directly linked to their websites. In this way interviewee identity will be protected. Staff and students involved with the programme have been consulted about the research study and only students who volunteered to participate in the study were considered for further selection.

In the next chapter I present the discursive practices level analysis of student performances in the WDD through a review of the personal websites created as part of an assessment event.

# Chapter 4

Analytical Findings –  
The websites as performance

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The analysis component of this study separates the two data moments (website design and semi-structured interviews) of the study into two chapters. The motivation for this separation suggests that each data moment describes a particular aspect of how students use Discourses including the new secondary Discourse of web design taking in the web design process. Using Gee's learning and acquisition continuum described on pages 34 and 35, the personal websites discussed in this chapter are seen as illustrative of students' first performance in the web design Discourse, suggesting levels of web design Discourse acquisition. Their reflective accounts of their design decision making via the semi-structured interviews are regarded as the expression of their meta-knowledge and thus learning of the WDD and are described in Chapter 5. Both data moments however provide the necessary evidence to support the research question *How are Discourses reflected in the design decisions made by students in their personal websites?* Through the explication of student performance and meta-knowledge of the WDD, their levels of functionality and fluency i.e. literacy levels, are described. This explication allows insights to be drawn about how the academic environment could accommodate a more effective approach to web design literacy and thus answer the second research question, *What are the implications for web design literacy in an academic setting?*

The personal websites were created as part of a course assessment requirement (see the brief in Appendix Two) in June 2005. The sites provide an example of students' first attempt to make meaning and apply the ways of being in the new Discourse, thus marking their entry as apprentices or beginners into the WDD. Through this activity students were required to use the tools of the new Discourse, create a personal website (the nature of personal websites are described in detail on page 39) and in so doing signal to the assessors and potential web users their level of understanding and application of the Discourse values, rules and conventions. Thus the websites provide

an instance of student practice in the Discourse of web design. The act of producing the websites required that students drew on and used their available resources both old and new. The websites, when subjected to a process of CDA that focuses on the discursive practices level, as described in the Methodology chapter, provided insights into the production, consumption and distribution aspects underlying their creation. The intertextual analysis allows for the identification of various Discourses that are present, shaping and influencing the design decisions made by students.

### The Websites<sup>1</sup>

#### Production, Distribution and Consumption

Fairclough's (1992) model of critical discourse analysis previously described, (on page 45 and 46) is used by this study to uncover and trace the social dimension embedded in the creation of websites. The model has three tiers that consider the language of the text, its discursive practices and at the third level a social analysis of the institutional and organizational circumstances that shape the discursive practices. While it is acknowledged that engaging in a complete CDA contributes to a holistic analysis of a text, for the purposes of this study the discursive practices level is singled out for further analysis as it provides the most apt means of uncovering and tracing the influence of students' Discourses in the web design process.

Fairclough argues that the "Analysis of a particular discourse as a piece of discursive practice focuses upon processes of text production, distribution and consumption" (1992:71). In addition the recognition that the production and consumption of any text, which in this case are the websites, are particular to the context in which they are located (Fairclough, 1992:78). The production, distribution and consumption qualities of the websites are first described as they provide a foundation on which the intertextual analysis of the elements that make up the websites can be built.

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<sup>1</sup> A CD ROM accompanies this mini-thesis which contains the personal websites produced by the study's participants. Various screenshots of relevant web pages and elements have been included in the discussion that follows to illustrate the argument being articulated. These are for illustration purposes only and due to the presentation constraints of the print environment (screen size is not to scale which inhibits readability and detail) do not always accurately capture the full essence of the students' intention as designed for screen viewing. Viewing the sites directly from the CD ROM is therefore recommended to supplement the graphic illustrations.

In relation to the 'production' aspect of the Websites, students<sup>2</sup> (see Appendix Seven) are seen as the producers and simultaneously take on the position of "animator" (the person using HTML to create the visual display of the website), "author" (the person who puts the content together, and on a Website might include words, images, graphics, sound etc...) and "principal" (their individual position is being presented via the words and images displayed on the Website) (In Fairclough, 1992:78). Another production element the assessment brief determines is that students are required to "Design, develop and produce a personal website for yourself" (see brief attached in Appendix Two). The brief prescribes the conventions and style that the final product should take, i.e. a personal website. The brief also sets up how the text will be consumed (by the assessors, other classmates and the online internet community) and provides 'clues' for how the text will be interpreted via the inclusion of the assessment criteria.

'Distribution' is mediated through a complex interplay of technology resources to an online and therefore possibly worldwide public Internet audience as the assessment requires that students publish the sites via a local server. This reinforces the external location of the production and interpretative aspects away from the more private assessor realm, and both extends and interlinks the WDD practiced in the course to that of industry Discourse practices. The 'consumption' of the websites takes place as both an individual and collective activity. The websites are viewed (consumed) and assessed on an individual basis by the two types of assessors, independently of each other. As the sites are available to the public there is a collective consumption platform in that other classmates and the worldwide online community are able to view and evaluate the websites produced. This suggests an interpretative environment which is varied, complex and multiple and able to simulate the 'real' consumption environment of the industry WDD, where all websites produced are consumed in a public manner.

Interestingly while the possibility of multiple consumption sites are offered by the fact that the sites are published to a public audience, the specific framing of the website

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<sup>2</sup> Brief profiles of each student participant are included in Appendix Seven. Extracted from their websites and interviews the descriptions contained in the profiles seek to introduce each student and highlight salient aspects relating to how they performed in the assessment task and their primary and secondary Discourses.

production as part of the assessment event restricts it to a more internal environment. The assessment event closes the consumption potential to the producer (student) and the main consumer (the assessor) rather than to a wider audience. I was reminded of this in the interview with one of my students, Nandi, who reflected on the fact that she excluded her name from the entire site, because she knew I would be marking the assessment and I knew who she was.

**\*Nandi:** I provided my e-mail address and contact details on the footer. The only thing I didn't do was to provide my name. On the whole site I didn't provide my name.

**L:** Oh that is interesting! And why do you think you did that? Was it a conscious decision?

**N:** No, I saw it afterwards. Maybe I did not think about it because I did it [the website assessment] for you and you knew my name.

In relation to producing for a wider online audience, only one site (see Grant's website on the CD ROM) comes close to adequately accommodating wider consumption in the inclusion of extensive content descriptions and acknowledgement of external viewers (use of international telephone codes, affiliation signals to CPUT or Pentech and a comprehensive Welcome blurb on the Home page).

Even the assessor's consumption is framed internally within the academic context to the assessment event where the website is marked as a product of a first time web design attempt. Interpretation in this instance becomes constrained by the assessment criteria and marking check sheet. The inclusion of the websites in the research study has however shifted my interpretative lens. In the study I have interpreted the websites not only as first time web design and production attempts, but also as reflective of the designer/producers Discourses and of the various social practices informing the production event. The analysis reveals that different consumption and therefore interpretative practices are at play when 'reading' the websites for the assessment and the research processes.

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\* \* The transcript convention used in this thesis signals the participants or researchers' contribution by the initial of their name. The first time a student's transcript is used, their full name will be used and set in bold. I also use underlying in the excerpts to highlight salient points that are illustrative of the argument I am making. I have tried to maintain the authenticity of the interview discussion by including the original dialogue. To provide contextual clues to the reader descriptive inclusions have been made, these are indicated by square brackets and italicized text.

### Intertextuality

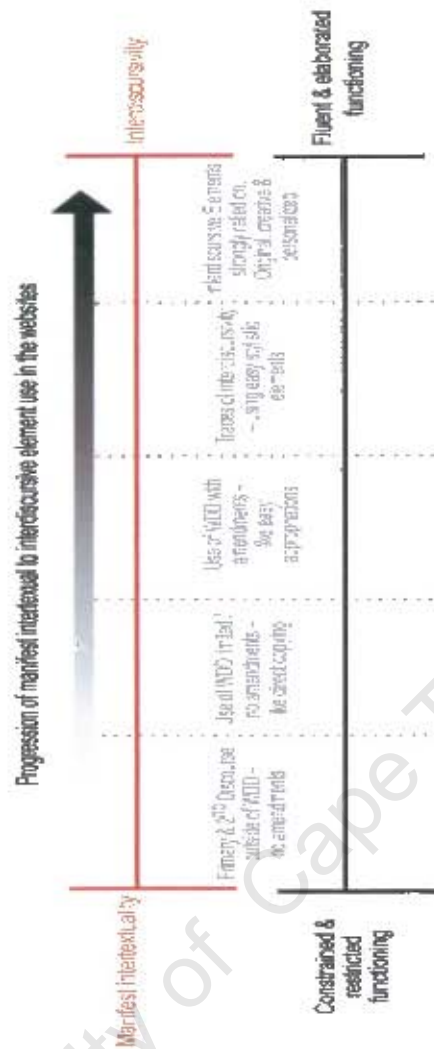
In its broadest sense, as Fairclough notes, intertextuality "...is the presence of actual elements of other texts within a text..." (2003:39), with the recognition that it also covers a range of possibilities from overt copying of other text like the use of quotations, or more subtle forms where only a hint of the 'other' text is recognised (as noted In Fairclough, 2003). Acknowledging these possibilities, Fairclough (1992) distinguishes between *manifest intertextuality* and *interdiscursivity*. Tracing the intertextual elements that constitute a text like a website is part of the discursive practices dimension of Fairclough's approach to CDA as previously explained. A distinction can be made between accounting for the social nature of the whole text, e.g. the website, via the production, distribution and consumption qualities undertaken on pages 51 to 53 and more individual elements and voices. An intertextual analysis affords the opportunity to trace the location (in social and cultural dimensions) and background of specific 'texts' or elements that make up a website.

Manifest intertextuality refers to the overt use or presence of other texts within a text, for example the presence of quotations from another source in the current text, or where images or screenshots taken from another website are copied directly into a student's website. Interdiscursivity defines the more subtle, almost abstract use of other text. Ivanic (1997) points out that in interdiscursivity "...the echo in the new text is not of another specific text but of a recognizable abstract text type or set of conventions, a pattern or template of language use, rather than a sample of it" (In Paxton, 2004: 24). In website design interdiscursive examples would include the use of certain design or stylistic conventions associated with page layout like the inclusion of a graphic header. Intertextuality is therefore a mechanism whereby texts, ideas and voices drawn from other Discourses but present in the current website can be traced.

I have developed a continuum (displayed on page 56 to enable readability) that traces and relates the use of manifest intertextual elements and interdiscursivity in student websites to their levels of functionality and fluency in the web design Discourse. The continuum diagram matches the intertextual elements used to fluency levels in the WDD. Student performances are described in relation to the guidelines proposed by the

continuum which are elaborated in the discussion that follows. This continuum is used in a descriptive manner and does not prescribe the sequential progression or extent of how students are meant to use intertextuality in their web design practices. As will be seen in the analysis students sometimes hold multiple positions on this continuum, signaling differential intertextual element incorporation within a given website they have designed.

I regard manifest intertextual elements and text that are drawn from the WDD as clear indications that students are coming to grips with the Discourse rules and conventions. Often students appropriate elements from their Discourses (including the WDD) and amend or change them to suit their needs in the design of their personal Website. This reconfiguration process, (which can be compared to the recontextualisation process mentioned previously in the Introduction and page 28), can be located either inside or outside the social practices of WDD. Tracing the intertextual elements to 'inside' or 'outside' of the WDD provides an important signal of how students' design decisions are shaped by the Discourses they are drawing from. As they increasingly draw from within the WDD so their levels of fluency in the Discourse become apparent.



Instances of interdiscursivity suggest a comfortable and fluent integration into the WDD, indicating a better awareness of the Discourse conventions and rules. One of these conventions previously noted on page 27, is that of borrowing, with interdiscursivity indicating a particular kind of borrowing that incorporates a high level of reconfiguration and recontextualisation of the borrowed element. The reconfiguration process however needs to be appropriate within the WDD and seamlessly merge into the designed website. On the one end of the continuum, students' website practices that display manifest intertextuality elements drawn from outside of the WDD are regarded as signaling a constrained or restricted functionality in the WDD. On the other end of the continuum, as they start to draw almost

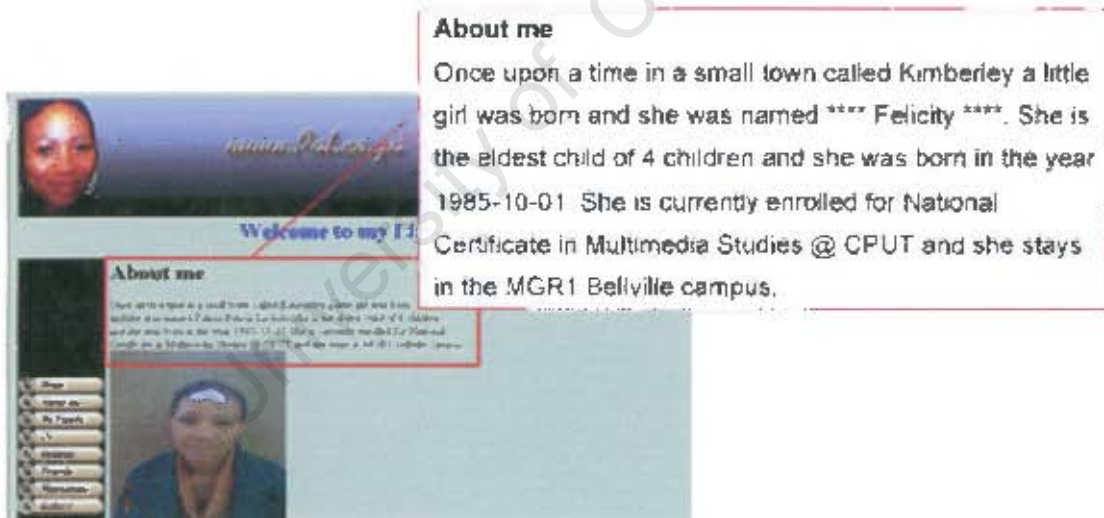
exclusively from the WDD and increasingly the websites show signs of interdiscursive elements it signals an increasingly fluent and elaborate<sup>3</sup> level of functionality.

The websites discussed in this chapter offer insights into students' performances of web design, and a sense of their functionality in the Discourse. The identification of whether the intertextual elements used in their web design process are drawn from either 'inside' or 'outside' the WDD helps to signal which Discourses are reflected in their websites.

### Manifest intertextuality

#### 1. Elements drawn from outside the Discourse

The example below illustrates how a student attempts to reconfigure and appropriate elements from a secondary Discourse she is familiar with, in this case a literary Discourse, into the WDD but where the included text is misaligned with what is typically required by the new Discourse.



Felicity makes use of a fairytale narrative to describe herself in her **Home Page 4 Welcome blurb** (see the Glossary in Appendix Eight). She has used the **page title**

<sup>3</sup> While the terms restricted and elaborate are used to describe students' levels of fluency in the WDD, they are not used in the same manner that Bernstein (1975) used restricted and elaborate codes. I do however use Bernstein's terms when discussing student interacting in the interview setting. This is described in more detail in the Post-Script chapter.

<sup>4</sup> In this chapter 'bold' text is used for a number of technical terms which are included in the glossary – see Appendix Eight. An interactive version of the glossary is also included on the CD ROM that accompanies this thesis.

'About me' in place of a more commonly used 'Welcome' title. The 'About Me' title can be seen as her way of signaling that the information relates to her. While this narrative can be seen as Felicity's attempt to be 'creative', typically introductions on personal Websites are conversational, informal, have a promotional or persuasive quality that invites the user into the site. Examples of students using the more common approach to the Welcome blurb, thus drawing on textual elements from within the Discourse, are Grant (illustrated below) and Julia (viewable on the CD ROM). An important aspect to note here is that the writing style sets a conversational, informative and inviting tone directing the user into the rest of the site. This convention is strongly encouraged in the WDD and suitably applied here.



## 2. Elements drawn from within the Discourse without appropriation attempts

In this example Felicity has made explicit use of navigation buttons copied from another website without considering whether the style of the button has a seamless fit with or complements the rest of the design theme or **Graphic User Interface (GUI)** of the designed site. Had the site included an animal theme (to match the paw print design on the navigation bar), or Felicity indicated her love for animals and complimented this with other animal inspired design elements, her button use would be regarded as appropriate.



While Felicity used direct code copying, a value espoused in the WDD, she failed to apply it or make necessary amendments to either the buttons or the rest of the GUI to create a more coherent aesthetic feel to her website.

These examples of using manifest intertextual elements from outside the Discourse, and from within the Discourse but without any attempts to reconfigure the borrowed text to suit the conventions of the new Discourse, suggest a constrained or restricted functionality in applying the values and rules of the WDD.

### 3. Elements drawn from within the Discourse with appropriate reconfiguration

In the examples presented below we see performances that start to match the conventions, rules and values of the new Discourse. All the examples draw elements from within the Discourse with students making various amendments and adjustments to suit the needs of their site design. Some of their appropriations reflect simple rules which most students can easily apply, while other appropriations highlight the complexity in understanding and then applying the Discourse conventions. In these cases students often rely on more familiar prior Discourses (like socially framed interpersonal communication and visual 'self' representations) to frame their reconfiguration activities which are unfortunately not recognized within the WDD to constitute the appropriate application of the Discourse's design conventions.

a) Easy Discourse appropriations

The appropriation of the URL to match the personal details of the designer seems to be the easiest intertextual amendments students are able to apply. The convention of using the correct file extension, e.g. either .com or .co.za, after the site name (noted below in the examples) either reflects some appropriation of their name, surname, site theme or imagined persona.



Examples from five of the sites that used the URL convention in their site naming activity

Below we see an illustration of how buttons copied from another site were used by Nandi yet because of the complementary colour (the varying tones of blue, white and pink match each other) integrates and supports the design theme of her site.



Colour matching between manifest intertextual elements drawn from within the WDD is a further example of a fairly simple way in which intertextual elements can be used appropriately.

The assessment brief stipulated that students' source code for an active e-mail **hyperlink** from the Internet and include this on their websites. The inclusion of e-mail hyperlinks therefore signals direct code copying, but students were able to make the necessary appropriations so that the hyperlink's placement fits the conventions of the Discourse on either the **footer** or the Contact Page. Five of the participants sites reflected this appropriation with most simply including a standard hyperlink on the footer thus signaling an appropriate application of the Discourse convention. The Discourse convention prescribes that their full e-mail address is provided in the signatory blue underlining that on the Internet indicates a hyperlink. This application of the Discourse rule is illustrated below with Felicity, and Nandi's footer section of the webpage indicating the hyperlinked e-mail.



Grant's use of the graphic hyperlink (see illustration on page 62) suggests a stronger visual design interest while accommodating the Discourse convention by placing the hyperlink in the typical location on the footer of the screen. He uses a technical 'roll over' mechanism on his e-mail address instead of the conventional blue underlining to indicate the hyperlink. This visual inclusion and roll over approach is indicative of a more nuanced application of the various ways in which a Discourse rule could be applied, coupled with a higher level of technical skill and the willingness and confidence to extend the confines of the assessment brief.



The graphic e-mail hyperlink positioned on the footer of Grant's webpages

*b) Awkward Discourse appropriations*

This section shows appropriations from within the Discourse that seem more out of place or dislocated from the conventions of the WDD. The two examples (Logo and Contact Page design) suggest either a misunderstanding of the conventional practice of the Discourse or that the basis of the amendments is framed by an understanding of students' more familiar prior Discourses.

Logo design

Both Felicity and Grant use realistic portrait type images of themselves as logos on their websites. Without formal 'taught' exposure to logo design that tends to be framed heavily by the use of icons and graphic abstractions, students resorted to the more familiar and accessible reconfiguration of using digital photographs to conceptualise and design their logos. I would argue that this stylized utilization can also be linked to the South African contextualization of presenting and visually portraying the 'self' through the association of 'Identity Document' (ID) photographs.



The examples below are illustrative of a more common logo design style. These demonstrate the commonly used abstract icon style typically identified in professionally designed logos for either professional organisations or even appropriated to personal logos.



The CPUT logo.



A logo designed by a 2<sup>nd</sup> year student for a personal website.

### Contact Page design

The appropriations described above are indicative of how students used colour or layout design and conventions as prescribed within the WDD. The example below however is an expression of not understanding an interactive convention that requires students to understand the connection between what a page title means and the appropriate inclusion of content to match that page titles' purpose. On page 64 Julia and Selo's misunderstanding of the purpose of the Contact Page is illustrated. This resulted in the inclusion of content and a page design that did not match the conventions prescribed by the WDD for a Contact page. Julia's example is typical of a feedback form where users supply their name and simply write a message or comment to the webmaster. Selo on the other hand included a questionnaire type form that required users to comment on his site design.



Julia's contact page which is typical of a feedback form.

Selo's contact page included a questionnaire form requiring users to comment on his site design.

While both examples are drawn from other webpages (suggesting code and page design borrowing) with students tailor making the questions and visual appearance to match the design theme of their sites, there is a fundamental mismatch between the page titles (Contact Page) and the actual page content. However had the page titles been changed to either Feedback or Suggestions this would have been recognized as more appropriate within the Discourse.

Both students used a feedback type approach for the contact page with the inclusion of feedback forms and questionnaires. Typically contact pages on websites simply provide the contact details of the organisation or person whose site it is, e.g. telephone numbers, physical address, location maps etc. During the interviews both students revealed that they took their understanding of what 'contact' in interpersonal interactions meant and translated it directly to the WDD, thus providing users with an interactive means to get in contact or make contact with them. This usage could be a reflection of social communication practices that are part of the students' secondary Discourses. To illustrate this I would like to include a segment from Selo's interview transcript that expresses his understanding.

S: I like it most. [Referring to the contact page on his website] I think it's because of the questionnaire. Whoever is on the page can criticize or just make comments. [The] Contact pages is where the viewers or visitors can talk to me or contact me (inaudible)

L: On other sites do people use that same sort of approach?

S: It's not [like that] on other websites. They have their addresses and contact numbers. It's [referring to his contact page design] not really like what you find.

L: So why did you choose this option then?

S: I guess I thought this [approach] is more, more closer to viewers contacting me.

L: It's a way in which they can actually make contact with you? Can give you feedback? And that is your understanding of what contact means?

S: That is how I understood [it]. Besides even this kind of thing I could have done the address and contact details on this page.

Both students recognized their inappropriate use of the convention for this page type, thus suggesting awareness, albeit an unsteady one, of unfamiliarity with the many design and functional conventions of the Discourse which at first might seem similar to their interpersonal communicative and social Discourses but have a very Discourse specific application in the WDD.

### Interdiscursivity

Here ideas or Discourse markers, for example particular stylistic approaches or themes, rather than other textual elements or examples are drawn on and remade so that the source is almost obscured. What emerges from the reconfiguration process is a web design or webpage element that web users would perceive as integrating seamlessly into the designed website. Often the process of reconfiguration requires in-depth knowledge, understanding and skill in relation to the visual design and technical competence within the Discourse. The end result therefore has unique and creative qualities and appropriately fits into the design theme of the website and general design, stylistic and technical conventions of the Discourse itself. Again a continuum that suggests a range from basic and simplistic attempts to more developed, intricate, nuanced and creative applications is an apt means of viewing and explaining the interdiscursive elements. All the examples below show how interdiscursivity is used in the visual design of the site theme and incorporated into various layout elements.

#### Common stylistic interdiscursive elements

Nandi's site evidences a more fragmented and inconsistent incorporation and use of interdiscursive elements.



Consistent colour and page layout approach used by Nandi as a design theme in her website.

Simply using the layout conventions prescribed by the brief, with the inclusion of colour that demarcates the primary content area (white background with black text) the visual banner and basic page layout are mechanisms that ensure consistency of her design theme. Her site illustrates a very basic and beginner-like application of the Discourse conventions in relation to layout and colour use with limited attention to detail and refinement noted in the alignment of graphics, page size and **visual or graphic banner** design seen in more professional practices.

#### Creative and original interdiscursive inclusions

Julia uses a 'cherry' theme to inform the design of her site and consistently applies this theme across the site including various innovative and original touches like quotes on each page to signal an entry point to the page content, the visual focus of the navigation bar, her specific font choices and the inclusion of the **splash cover**.



Julia creates a strong visual feel to her interface design with the incorporation of the 'cherry' theme as stylistic mechanism.

Furthermore the graphic **navigation bar, header**, colour and layout coherence enhance the quality of the look and feel (a common phrase use to describe the aesthetic style,

mood and design theme used in web design) of the website. The refinement of these stylistic features display the application of conventions that hinge on practices and values that suggest a comfortable and fluid functionality in using the resources, values and conventions offered by the WDD.

Grant's website, in a similar vein to Julia's, uses an expertly crafted visual header as a stylistic and design theme of the site.



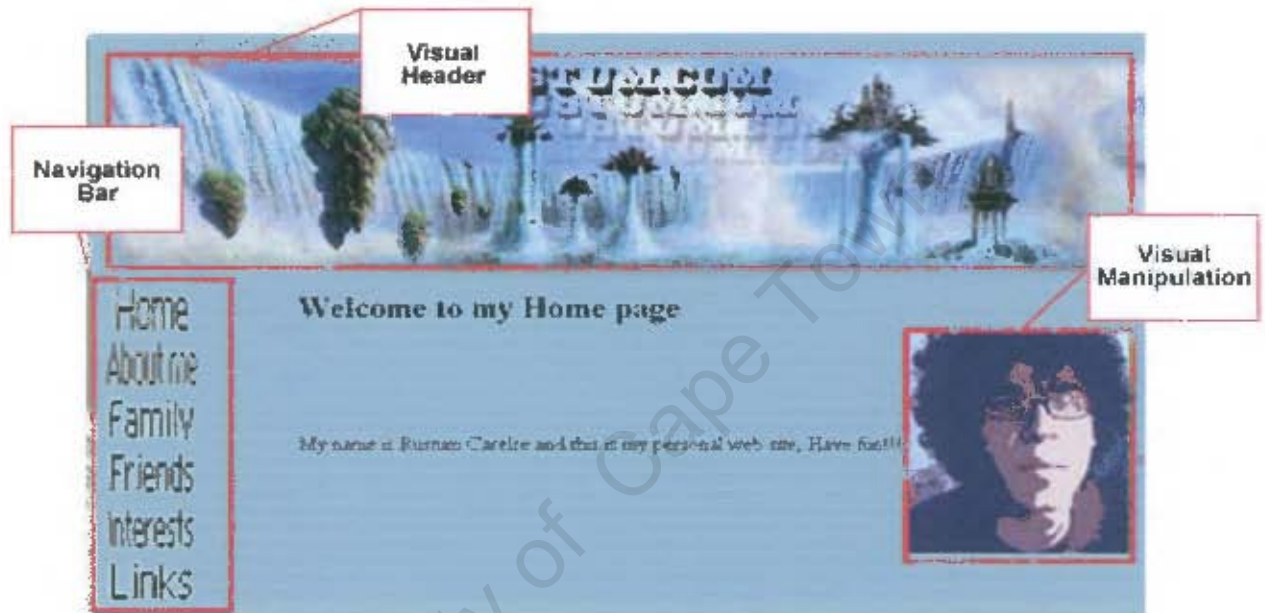
While stylistically it could be argued that the navigation bar has a somewhat inconsistent connection to the rest of design elements, the user is not overtly distracted by its inclusion. The level of technical competence evidenced on this site suggests a strong level of functionality with the many conventions, competencies and practices valued in the Discourse Grant's site also has a strong visual focus that directs the site design and page elements while maintaining a consistent look and feel to the site. His technical competence is reflected in the inclusion of sound clips, an interactive site map, animated banner on the home page and photographic collages that reflect the content focus on each page.

Both Julia and Grant's Websites indicate a strong and consistent use of interdiscursive elements suggesting an original and developed application of WDD conventions and principles. As a result their performances of web design would be recognized within the Discourse as appropriating more professionally constituted site design practices.

### **No place on the continuum?**

The discussion thus far has focused on the value of using intertextual elements from within the WDD, highlighting that when elements or their appropriations are drawn

from outside the Discourse there tends to be an inappropriate fit. However Richard's website presents an interesting contradiction<sup>5</sup> to the above analysis. Richard's website represents a rather interesting case of the almost exclusive use of interdiscursive elements from outside the WDD but that visually seem to integrate appropriately within the Discourse. These include the use of photographic manipulation and the creation of an original visual header. The header and navigation bar represent stylistic appropriations from more artistic Discourses, successfully incorporated into the interface design of Richards's Website (illustrated below).



Despite the aesthetic considerations noted above, when viewing the website it becomes obvious that the site is incomplete with missing content on a number of pages the most striking omission. As a result his site failed to meet the requirements of the brief and he failed the assessment. In his reflective account in the interviews, Richard (see page 75) suggests that he drew heavily from various visual and artistic Discourses to create the visual feel of his site. When accounting for his design decisions, he alluded to a keen awareness and meta-knowledge of the WDD. I want to speculate that the visual Discourses that formed the basis of his interdiscursive borrowing are closely aligned to the visual and aesthetic qualities recognized in the WDD. Secondly, Richard used the

<sup>5</sup> Richard's case will be highlighted again in the summary comments of Chapter 8 as it exposes some of the constraints and challenges of this research design, but also the complexity of attempting to benchmark student progress and development in the highly dynamic and fluid environment of a web design Discourse.

appropriated elements to create webpage elements like the visual header and font choices, thus displaying a creative approach to the design of those particular site elements. This visual awareness and ability to present them appropriately in the website was sufficient to have this aspect of his WDD performance recognized in the research process.

### **Some synthesizing comments**

The analysis of the intertextual elements of the website suggests that student draw heavily from a range of secondary Discourses (also described in more detail to include the interview analysis on page 88) they are familiar with. The web design Discourse features prominently along with secondary layers that distinguish between a visual or technical Discourse orientation. Schooling, academic and other socially framed Discourses can also be identified with storytelling, the Discourse of rule (e.g. academic and assessment), compliance or obedience, visual Discourses of the self and interpersonal communicative discursive practices, constituting the sub-layers of these broader Discourses. Various appropriations, reconfigurations and amendments are undertaken to ensure continuity and successful match between the sources ideas and elements with the conventions and stylistic prescriptions valued by the WDD. Sites where students drew increasingly on elements located within the WDD and then integrated these into the existing aesthetic qualities of their own websites are more likely to have their performance and functionality recognized as fluent within the Discourse. The analysis further highlighted the differential utilization of recognition practices in the pedagogic Discourse (noted in the assessment rubric and assessment criteria in Appendix Two) and the research process where the continuum described on pages 54-56 is the main recognition tool.

In the next chapter the semi-structured interviews are analysed. The analysis describes students' levels of meta-knowledge of the WDD. Some general synthesizing comments which relate to the analysis of student performance and meta-knowledge of the WDD are presented at the end of Chapter 5.



# Chapter 5

## Analytical Findings – The interview as meta-knowledge

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This chapter analyses the semi-structured interviews which describe students' reflective account of their design decision making in the process of creating their personal websites. This analysis will reveal students' design interest and their levels of understanding and meta-knowledge of the new Discourse.

### The Interviews

Semi-structured interviews with the research participants took place in October 2005 almost four months<sup>1</sup> after the design and production of their personal websites. The interviews provided a means for students to articulate their design decisions and interest as it related to the personal website created for the assessment in June. The analysis that follows highlights two themes that emerged from the analysis process and, when considered in relation to the websites, illustrate students' meta-knowledge of how the Discourse works and how that understanding informs their design decision making in the process of website design.

An overarching value (personalized belief or principle) and practice (the application of a belief or principle) in web design is the notion of borrowing. The thematic analysis reveals that all students' decision making was guided by this value; as a result the theme of **student borrowing activities** is interwoven in much of the reflections during the interviews. This general idea traverses either explicitly or implicitly much of students' design decision making. This theme also relates strongly to the notion of intertextuality observed in the CDA of the websites, however there is a differentiation. In the interviews student borrowing activities signal their use of and internalization of this Discourse value. Intertextuality in the website simply confirms that borrowing has

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<sup>1</sup> The original research plan accommodated a shorter two month gap between the website assessment and the interviews. This time frame coincided with the June semester break and allowed for reflection time before conducting the interviews. Unfortunately due to a death in my family in August I was unable to schedule interviews until October. This break did however provide more distance between the website assessment and created the opportunity for the consolidation of students' meta-knowledge.

taken place and identifies its historicity. A subset of this theme is the notion of what inspires or interests students when they are borrowing, thus borrowing is further differentiated into an aesthetic and technical interest. In a sense the practice of borrowing is mediated through either an aesthetic or a technical interest. This links strongly to the nature of web design (discussed on pages 6– 8) espoused in both the broader industry and the curriculum orientation of web design in MM Tech that sets up the distinction between the aesthetic (web designer) and technical (web developer) focus.

The second theme of **student progression in the Discourse** provides evidence of the improvement and development in their understanding of the Discourse, as a result of their continued exposure to it over time. Through students' differential awareness of the meta-knowledge of the Discourse and in their articulation and expression of its terminology and values, participants seem to experience differential levels of functionality in the Discourse.

The nature of student borrowing activity points to the influence of various Discourses on student design decision making, linking directly to the first research question, *How are Discourses reflected in the design decisions made by students in their personal websites?* The differential meta-knowledge fluency levels noted by the analysis under the theme of student progression in the Discourse, raises questions about how students obtained this knowledge and what might be done within the academic environment to address the differential levels noted. In this way a connection to the second research question, *What are the implications for web design literacy in an academic setting?* is created.

In order to create a link to the intertextual analysis of the websites, the description of students' borrowing activities will first be addressed, followed by an exploration of evidence that underlines their progress in the Discourse.

### **1. Student borrowing activities in the web design Discourse**

This theme is used to describe when students borrow design ideas, HTML code, actual webpage elements, e.g. buttons, fonts, animations, forms or feedback questionnaires

and templates (in design, actual code or both) in the creation of their websites. The source of the borrowing activity is a significant factor with the intertextual analysis distinguishing elements drawn from 'inside' or 'outside' the Discourse as noted on page 57.

In the interviews all students indicated a tendency to borrow heavily from other websites, a practice valued in the Discourse. In some instances students use other websites as a source for design ideas and HTML code. The assessment brief specifically states that students should source 'code' for particular functions and then acknowledge it<sup>2</sup>. Borrowing can also be differentiated into different types i.e. direct borrowing or borrowing with amendments. Direct borrowing, i.e. with no or limited adjustments or amendments to the original item, is seen as an important step in acquiring the Discourse, especially for apprentice web designers. Direct borrowing in the WDD can however be recognized and associated with amateur design practices, as originality in design is highly respected. With continued exposure to the WDD students' site design efforts are expected to display their own 'touches', originality and amendments in an attempt to obscure the source of the borrowing, i.e. borrowing with amendments.

### Ensuring that borrowed ideas 'fit'

Julia offered an explanation for the inspiration around her site theme. Not only did she draw extensively from an idea sourced from another site, but she was determined to add her own finishing touches so that the sourced idea merged more with her design intention.

L: Maybe we should go into the home page and maybe you can talk me through the layout and design. You describe to me what you see.

\***Julia:** Ok! The cherry theme – I wanted my navigation to be circles and I wanted to link them together and I saw that they looked liked cherries, so I thought ok, let's do cherries! [The] cherry theme! It was two cherries and I cut it up and put text over it. Then the logo, I went onto another site and I saw the cherry thingy, and I did my own. I added a few stuff, [for the] the logo [pause] the speckles on the side to make it look more cherry-ish.

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<sup>2</sup> This would be achieved by the inclusion of comments regarding the origin of the borrowed code in the source code (HTML) of their own websites.

\* The transcript convention used in this thesis signals the participants or researchers' contribution by the initial of their name. The first time a student's transcript is used, their full name will be used and set in bold. I also use underlying in the excerpts to highlight salient points that are illustrative of the argument I am making. I have tried to maintain the authenticity of the interview discussion by including the original dialogue. To provide contextual clues to the reader descriptive inclusions have been made – these are indicated by square brackets and italicized text.

Where an idea or text element was directly copied, like the colour choice, it needed to fit into her design concept for the site, suggesting Julia made conscious decisions about the use of borrowed ideas and elements.

L: Maybe [you can] talk about the colour choices you made here on this particular page? [The Home Page]

Jade: I got this picture from the logo picture on the other site that I saw. That [yellow and red] was the colour that they were using, so I thought I didn't want to change it too much because it looked nice and I kinda went with the whole red and yellow – orangy theme.

L: Oh so the colour choice you got from another [website]? I know you said before about the 'Cherry Lane' site that you went to. So it was a similar colour theme that you went for?

J: Ja! It's just that in that site. [referring to the Cherry Lane site] this thing [referring to the size of the cherry] was smaller. Actually it was much bigger [confusion noted about the original size of the cherry on the original site] and took the whole half of the page and it had a background image of people. I didn't want to go exactly like that site.

When borrowed ideas do not 'fit'

Others however are unable to apply this notion of borrowing in the developed and nuanced manner valued within the Discourse. Rather they incorporate elements that do not fit visually or stylistically with their web design. The focus is more on the appeal of the individual visual element being borrowed with limited consideration shown for how the element might fit or match the overall visual theme created in the site. The WDD privileges and values the appreciation of consistency and coherence in site design and development, thus the whole is treated as more important than individual elements.

A good example of this mismatch is Felicity's use of borrowed buttons (illustrated and discussed on page 59) from another site that did not fit into the overall design theme of her site. When asked to comment, Felicity's decision was motivated more by ensuring that her buttons were different and original from those used by her classmates, while acknowledging that she did not consider whether they would 'fit' the overall site theme.

L: And why did you choose that option? That style for the buttons?

Felicity: I love that buttons.

L: Maybe you can describe it? What do you like about it?

F: It looked unique, everybody was going for these glossy buttons and I didn't know how to make my own buttons at that time with Photoshop [A software package used for photographic and image manipulation and editing]. So I downloaded it [the buttons] from the Internet. And apart from the others those who downloaded buttons, they don't look like this.

L: Tell me something, *[pause]* they have little paw prints. Was there a particular reason?

F: No! man it looked unique and I liked them.

L: Ok so they were unique. Do you think they fit into the style of the rest of the site?

F: Oh I didn't think about that. They just looked nice and I liked the colour.

These examples describe whether students are able to understand and apply the appropriate approach to borrowing in the WDD. Julia's explanation shows an underlying appreciation of the WDD borrowing values and when applied to her website design helps to have her practices recognized within a professional realm. When these borrowing values are not understood completely as noted by Felicity's comments, students unfortunately run the risk of having their design practices linked with amateur practices.

### **Visual or Technical interest framing the borrowing activities**

This sub-theme attempts to describe the factors that influence and frame students borrowing activities. It suggests that in the process of designing a site or a site element, students' underlying interest (the personal and socially informed resources used in a communication or representative activity (Kress, 2000)) informs the design act. Students are either driven to search for ideas to create an aesthetically pleasing website or for code that will ensure a technically functional site. This interest acts as a driver in directing their borrowing activities and signals which factor (aesthetic or technical) is regarded as more important in framing their design decisions. Bridging the dichotomy between the aesthetic and technical interests is an important step for students new to the Discourse. Successful web design within the Discourse (identified in the WDD on page 25) strives for a balance between these two interests so that a visually appealing but technically functional website is the end result.

#### **Technical interest foregrounded**

For some students the task of creating this personal website was predominantly framed by the technical aspects of web development, e.g. working with HTML, other software like Photoshop, and ensuring that the site worked.

Selo's description of whether he enjoyed completing the website assessment highlights his technical interest. It also shows that for him web design is more about technical

functionality than a focus on visual communication and aesthetics as privileged in the Skills subject. He utilized various borrowing activities that included using the Internet as a resource to solve his technical problem, suggesting a strong technical interest in his design process.

Selo: Of course I did like it [referring to the assessment to produce personal websites] because I like the topic of web design so I took time before designing how the website would look. Because I wanted my website to look better [than the other students], so I checked and checked but towards the end I just got some few problems. In fact I used the frames to build the Website, but two weeks before the website [was due] I was told that I needed to use tables. So I have to check other websites and look at notes from Nieyaaz [The Applications subject Lecturer] on how to do it [create the site using tables]. So I had to change everything in a hurry. I looked at other Websites on the Internet.

L: Why did you check those other websites? What were you hoping to find?

S: First of all I wanted to see, [pause] I didn't have the idea of using the tables so I wanted to see how tables was used on the other websites.

#### Visual interest foregrounded

Others saw the task in strong visual or aesthetic terms with many of their design decisions conceptualized visually. Richard provides a lengthy, elaborate and detailed description of the visual elements, colour and font choices and ideas around the visual banner, that made up the home page design.

L: Maybe we can go to your site. Let's just start off with the Home Page. Maybe you could start off with describing it.

Richard: The top banner thing is from a card game I like. I don't say that on the site, but it's put together from four different cards that I blended out together in Photoshop. You can see the lines there and there [points to the lines on the screen where the webpage is displayed] where I blended it together. I was looking for a stencil type font cause I really like stencil type art and that kind of thing. That's why I put it in [referring back to the graphic header] and it's faded in so that it didn't stand out. Not that it didn't stand out too much, but so that it faded into the sky. The colour, [pause] and I faded [referring to a Photoshop technique]. The picture of me I didn't want to put a proper picture so I did the stencil look...

L: Is it stencil look?

R: I think so, in Photoshop [using] a filter. And the colour. The background. The font was supposed to be more pixel-looking but the way they look I was [incomplete sentence]... but I squashed them.

L: The titles on navigation bar?

R: So that they would fit. I made all of them an image, [referring to a technique used when placing a graphic on a website], but I could have done it much better. I could have used a font, put it in a style sheet and make it actual text instead. But I could have made them bigger so that 'About Me' [page title] fitted into the space. I liked my idea but I couldn't really put it into practice. I didn't really work with the font in the navigation bar. I should change it now that there isn't a constriction. [Referring to the constraints imposed by the brief]

Here he identifies the source of his ideas, having borrowed extensively from artistic genres (non-digital or computer generated and displayed art forms like street art, graffiti and stencil art forms, etc) rather than directly from other websites. Richard further acknowledges his struggle with applying the technical skill required to create his ideal look and feel for the home page noting the 'incorrect' look of the fonts on the navigation bar.

Students seem quite confident using other websites as a source for their design idea and are further able to distinguish the type of site and its purpose by looking at the approach to the site design, e.g. they can recognize that an information site will have a different look and feel to a chat site.

Nandi highlights her recognition ability while showing how her interest in the visual aspects of design directs which site she might visit and draw inspiration from on the Internet.

L: So you mostly visit chat sites. And what will draw you to a site?

Nandi: It's the way it's done. Its design, the pictures, the layout, the colours and even the font, the information provided. Not too much information but rather so that you will know what is here. I go to different sites, but I usually go to the chat sites and new artist sites, galleries and art sites.

L: So what is interesting about those sites?

N: It's the design, it's different from information sites. The way the art sites are designed, I don't know how to explain it.

### Finding a balance - The technical skills gap

The idea of finding a balance between the visual/aesthetic interest and technical competence seems to be a difficult one for students. Often the lack of technical know-how is advanced as a core reason for the identified design problems with their websites. There is also an acknowledgement that without technical ability and competence it is difficult to realize ones design ideals. Felicity expressed her struggle with getting the technical aspects right and the subsequent frustration it caused as it interfered with her layout intentions on the home page navigation bar.

L: And why did you put the buttons where you did?

F: They were not supposed to be here. They were supposed to be up there [Directing that the navigation buttons needed to be higher up on the page] so it was a mistake that I did. When I wrote stuff they went down. [I] wanted it to be further up where they usually are.

When adding content and trying to ensure a consistent layout for her CV Page, Felicity's lack of technical skills and the time constraint are advanced as possible reasons for design irregularities.

L: Do you want to go to one of the other pages and we can talk a little about it. Talk about this section [*Referring to the CV PAGE on her site*]

F: I didn't even put in the buttons and the CV, I just wrote it off. This isn't a CV [*referring to the content on the webpage*] I just wrote it off roughly. As I said, my time. Most of the time I struggled with it and I had to redo it. There was a lot.

L: What were you struggling with?

F: At first, just putting the banners and everything. And then when you check it again something is not in the same place, like the buttons. This was a bit difficult for me; it was our first time.

The problems identified above, i.e. the struggle to balance visual interest with technical competence in site design, are ones commonly associated with apprentice web designers. Their visual interest and ideas borrowing from other sites is often not matched with their own technical skill to make these ideas a reality as illustrated above. As the websites were students' first performance attempts in the Discourse, this kind of struggle would be regarded as a normal process of getting used to the Discourse rules and conventions. An interesting aspect revealed by the analysis is that certain students (Grant and Julia) have fewer problems with bridging the gap between the visual and technical and find interesting ways of overcoming this dichotomy.

Students whose visual interest dominated the web design process often used the technical aspects of web development as a means to an end. Julia related an interesting story that appropriately captures her visual interest in the design process. She was so keen to include a splash page on her site that lack of technical skill to create it failed to deter her enthusiasm for its inclusion. She found another student who had the technical competence to do it for her.

L: Now we are going to talk a bit about the website. The first thing that one notices about your website is that you have a splash cover. Tell me about the splash cover and why you decided to use a splash cover?

J: Firstly I thought it was a requirement. I don't know [*smiles then short pause (I think because of her modesty. Julia was the only student in the class to include a splash cover in her personal website).*] I think it looks cool when you see websites with a splash cover.

L: Talk about how you came to do the splash cover?

J: I told someone how to do the splash cover – Wade! I told him what I wanted. For the cherry to come together, and he did it for me. He did the technical work.

L: So you mentioned that you acknowledge that it wasn't a brief requirement but you had seen lots of other sites with splash covers?

J: Not lots, but a few and I liked it – the idea.

This illustration captures a further quality noted in the WDD that encourages web designers to “Have a strong awareness of current design trends” and a willingness to challenge the confines of the brief. The latter aspect I believe underscores the determination and self efficient Discourse evident in her primary Discourse. It also shows Julia’s complete control over the final ‘look’ of the splash page. While she was willing to hand-over the technical work, she maintained strong control over the visual outcome of the exercise. Her ability to ‘spot’ design trends and control the visual design outcomes again points to her strong visual interest in the design process.


This balance between visual and technical ability is illustrated when Grant talks about the strengths of his site.


L: If you sort of look at the site now, what do you think are some of the strengths?

Grant: Well the headers.

L: Why do you think so?

G: Cause they are, [pause] the header almost summarizes what you will find in the rest of the information [on the page] Like with My family [page] it’s got the pictures of the family and the Interest. It’s kind of like a summary of the page in picture form. The strengths I would definitely say one of them is the Interest Page. Cause I really enjoyed doing this page. I also separate it quite nicely, like the sport interest, music interest and then links to snippets of some of the songs I actually like. And then also some of the songs I made.

Grant’s website displays a strong balance between the visual and technical interests that in some instances represent developed applications of web design principles and conventions. His site incorporated elaborately constructed and designed visual headers that complemented the content focus of each page where they are used. In addition, due to this technical ability, he was able to include audio clips of the examples of music he enjoys listening too. 

However students who focus on technical interests were often unable to acknowledge when the visual was neglected or compromised as a result of this preference. So Felicity’s ability to download working buttons from another site that then did not match the overall theme of her designed site<sup>3</sup> provides an interesting example. 

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<sup>3</sup> Excerpts from the interviews that provide Felicity’s motivation for the inclusion of the buttons are noted on pages 73 and 74 while the screenshots are provided on page 59. Alternatively the website can be consulted on the CD ROM.

### **Some synthesizing comments**

Appropriate borrowing activity in the WDD is highly valued. For borrowing to be recognized as appropriate the borrowed item must adhere to all the values espoused by the WDD, e.g. not only must originality be considered, but consistency and coherence of the item with the other design elements of the site must be ensured. The analysis suggests that students are using a highly regarded value of the Discourse that extends the type of code borrowing activity required by the brief, e.g. the inclusion of an e-mail hyperlink as discussed on page 61. It also shows that certain students have successfully been able to show appreciation for the need to amend and reconfigure borrowed ideas or elements to compliment and integrate into their own site style and design. In these instances, their borrowing activities are recognized as appropriately conforming to a professionally orientated stance of the WDD. Furthermore students' borrowing activities are mediated via a technical or aesthetic Discourse interest. Students who have recognized the need to balance these seemingly competing interests are acknowledging and applying a key value of the WDD.

### **2. Student Progression in the Web Design Discourse**

This theme explores the idea that all the participants display some growth or positive change in their understanding and internalization of the WDD between the two data collection moments of the study. This change, movement or progression from the act of practice in creating a personal website in June, to conceptually accounting via retrospective analysis of their design decisions and choices informing their practices in October, illuminates and reveals their progression and meta-knowledge of the WDD. Students articulate and make evaluative judgements about their design decisions thus critically accounting for their shortcomings or mistakes made in the website (both in relation to aesthetic and technical design choices), note new technical skills acquired since the site's creation and illustrate their meta-knowledge of the WDD. Of significance is that while all students in the study were able to offer self evaluative insights into the design of their sites therefore indicating their progression, the depth and degree of descriptive elaboration of this meta-knowledge varied considerably amongst the participants. The differential level of meta-knowledge fluency is

poignantly illustrated by students' increased levels of descriptive elaboration expressed in how they are able to describe the Discourse.

### Signaling Progression

#### *Identifying changes*

When asked to suggest what aspects of their sites could be changed the following insights were offered. While able to suggest aesthetic and content related changes to his website, Selo does not offer reasons for why these changes might be useful (except related to his personal preferences) or how they might affect the overall look and feel of his site.

L: Is there anything that you would change, like a weakness on the site as a whole. Things that you would do differently if you had a chance to do it?

S: Of course! Like the header and the navigation. I would make it vertical on all the pages. Making the navigation, [pause] I like the navigation on the vertical side. I'm not sure what came into my mind. Why I made the navigation horizontal.

The motivations for the changes to the location placement of the navigation bar cannot be ascribed to in-depth understanding by Selo of the correct layout as prescribed by the stylistic conventions of the Discourse. Generally the decision to use vertical or horizontal navigation is at the discretion of the web designer. Interestingly, the brief prescribed the vertical navigation bar, but Selo only used this on his home page, with the navigation bar on other web pages being placed in a horizontal location. Unfortunately the interview failed to determine if Selo did this to challenge the briefs' prescription or if it was motivated by design trends noted on other websites.

Felicity highlights her inappropriate navigation button choice.

L: What do you think are maybe the weaknesses? What are some of the things you are not so happy about with regard to the site as a whole?

F: Site design. I would change the buttons. Now [that] I know how to do buttons. [using Photoshop] So they would be more simpler, as you said this [the buttons] is totally different from the theme, it doesn't relate

She presents an alternative that would see her using newly developed technical skills to create her own 'simple' buttons rather than relying on borrowing activities. However she fails to illustrate an understanding of why the button choice did not work, instead depending on a reason advanced previously in the interview.

*Recognising appropriate Discourse conventions*

Nandi's account of why the black and white photograph included on her 'Home' page should be replaced by a colour image, highlights her ability to identify an inappropriate use of a Discourse convention while suggesting a more viable solution.

N: And what I noticed is my banner its not supposed to be like this. It's not interesting even the pictures. The picture I used on my home page it's not interesting, how can I say it's a beautiful picture but it's black and white?

L: Why did you use black and white?

N: When I was doing the site it was the only good picture I had.

L: Ok, was it taken in Black and White?

N: Yes, so I scanned it.

L: Why do you think it's not interesting, does the colour make it not interesting?

N: It is interesting but for it to be on a Home Page, I don't think it's a proper picture to be there.

L: What kind of picture do you think is more appropriate to be on a Home Page?

N: A picture with colour.

Her understanding of appropriacy is however only framed by one alternative, i.e. the switch from black and white to colour. A more developed understanding of the stylistic possibilities available in the Discourse might have seen her advance several creative alternatives in addition of the colour change.

Grant's reflection on the colour choice of his website shows an awareness of how the contextual nature of the design environment can direct the design choices made.

L: And the colour? Your choice of colour?

G: I really don't know why I chose that honestly. I really don't know. I don't like that colour that's why I am redoing it in blue, I really dig blue.

L: So why then, if you like blue why did you pick, that yellow? It's not even yellow it's a mustard – yellow.

G: I don't know. I was trying to go for an earthy, rustic look [pause] I don't know. Well my Mom is very much into her art kind of things and she quite often uses these sorts of colours and the ways that she uses them actually looks kinda nice. But the way I used them it didn't work out all that well. I think!

L: Do you think it's the ways you used it or is it that it's on the Web and the stuff that she uses is on a different environment?

G: It could be because this is a totally different environment. It could just be because of the colour.

L: Maybe it's because it's so much of it on the site.

G: Yeah, that as well. Its like the whole background has that 'mustardy' yellow and its only alternating with two, three different colours, white, black and that mustard brown the light one and the dark one, so it could be quiet bland.

L: But do you think the colours work?

G: Yeah they kind of do. They complement each other like the light and darker shades, so you kind of recognize them. They compliment each other, it's just the actual choice of colour.

He is able to note that the WDD has its own conventions regarding appropriate colour use and simply borrowing a colour from another Discourse might not always result in an appropriate match.

### *Nuanced awareness of quality in design work*

Based on the recognition qualities operating in the assessment process, Grant and Julia's first website design attempts were well received and were rewarded with good marks (between 68 and 75%). Their sites are considered examples of well designed sites for their level of training. When asked to consider the weakness of the site design or aspects of the site they would replace, the reflections offered suggest a deep level of understanding and appreciation of quality in relation to web design.

Grant's comment on his choice of logo design and why the repetition of the Flash<sup>4</sup> animation might have an adverse effect on the users' experience of his site.

L: Things that you regard as a weakness or would maybe remove?

G: Colour! Definitely! Also I think the logo. I didn't have to use a picture of me. I could have used something that I liked. Definitely change the logo.

L: Why do you think you used the picture?

G: Cause I thought it's a logo for me, so may as well make it about me. Something to do with me rather than a random graphic.

L: The picture is rather realistic, you could have altered it, had an outline of something.

G: Like a silhouette kinda of thing. I didn't exactly think about it at the time. I was more concerned with just having a picture.

L: Sort of a real representation. And the negatives [of your website]?

G: Oh the flash animation on the Home Page. Cause I mean it can get irritating. It keeps repeating. So it does get irritating especially where you use the same pictures. If you used different pictures then it would be alright. It's only like seven pictures so it does get rather irritating.

Julia expresses her concern regarding the quality of images used and the practicality of including a hyperlink ('Fav Links' content link on the navigation bar of her site) that takes users away from her site without providing an explanation of where the link would take them.

L: Ok, and then what are the things you are not so happy about. The negative or weakness about the site.

J: The picture quality. There are some pictures which I scanned.

L: What would you have preferred?

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<sup>4</sup> 'Flash' is software tool used in the creation of animations on websites and CD ROM's. To view the banner animation of Grants home page please consult the CD ROM.

J: Digital pictures. Like this one was taken with a phone [*Referring to the various pictures on the About me page*] and the top one is a very old picture so it doesn't look so great and its stretched but,...[*pause*] And this one is also stretched a bit. The little quotes I would have put on all the pages. Then ok! , the Favourite Links it goes straight to the site. I would have like to have a little thing saying this is Louis Vuitton and you click here to go to the Louis Vuitton.[website]

Both Grant and Julia were able to point out concerns with their previous design choices. These aspects of concern, style of the logo and limited variety of photos on the Flash animation on Grants site, and image quality and usability concerns related to a hyperlink on Julia's site, all show an attention to detail that only a developed awareness of the Discourse rules and conventions might reveal.

The values of these retrospective accounts reside not so much in the fact that students were able to point out mistakes or shortcomings in their websites, but rather in how they account for these, the suggestions offered to improve them which in turn highlights their degree of comfort and familiarity with the Discourse conventions. The analysis reveals that certain students display greater levels of comfort or functionality with using and articulating the Discourse conventions. This is expressed through the use of meta-knowledge and evidenced in the descriptive motivations of design decision making using the terminology and discourse of web design. Students in varying degrees of fluency are therefore using the WDD to inform and account for their design decision making in their personal websites.

### **Describing the WDD**

This sub theme describes how in their retrospective analysis students are able to express themselves using the language and terminology of the discourse. They also show awareness of the visual and technical conventions and styles commonly applied in the Discourse. Detailed motivations, explanations and elaborations are presented for design choices and changes that often single out a particular aspect like colour or page layout for closer scrutiny. Increasingly in these descriptions students begin taking on the identity of the web designer and consciously start to reflect on how the user of their website might be experiencing their site design. The idea that the site design needs to somehow provide clues and reflect the type or genre of the site is also significant and noted by Nandi on page 76, Julia and Grant on pages 84 and 85 respectively.

Nandi's evaluation of her websites' inconsistent page layout approach signals an important awareness of the users' experience. Her discussion, however fails to include the use of web design terminology and a more detailed motivation of why in the WDD her layout approach would be considered inconsistent.

L: Do you think that it's important that the layout is the same on all pages. Your pages on the website are different. Is that ok?

N: No it's not ok. It's suppose to be the same on all pages. Some other sites they don't, but I think it's important to make your viewer move at their own free will and to make sure that they know they are in the same site.

The issue she refers to in the example relates to consistency in page layout and design which she correctly identifies. However her descriptions focus on the issue of user navigation and location, failing to provide more concrete and unambiguous motivations around the issue of consistency.

In this example Julia evokes a sense of how she used the stylistic and layout conventions of the Discourse to create a sense of order for her web users while clearly adhering to the emphasis on the 'personal' elements demanded from a personal website.

L: What do you think are the strengths?

J: Ok! The cherry theme, it's like it made it personal. Order! The order. The users know where they're going, where they are and what they are reading or going to be reading. The page titles give you a clear [sense of] this is the family [page] and the little quotes. My Home Page has no scrolling. Positives? I think my home page is quite clear, this is me! You get a sense of a personal Website.

While her choice of the cherry theme is regarded as having provided the personal touch to her website, Julia still feels it is an element she would change in favour of a more versatile colour option.

J: I think I would have changed the whole cherry theme.

L: Why?

J: Because of the fact that the whole cherry thing came from the fact that I wanted to do circles. It isn't really me. I would have done more 'Me' things.

L: What's more 'me'?

J: Colours, more bright colours. White background with lots of bright colours. The header would have been a bit more colourful. Just more colourful! I probably would have had borders around all my pictures. I would have kept the whole order thing – organisation.

L: It's interesting that you say you would change. [pause] That you would have a white background, why the white background?

J: Because I like colour and I think colour stands out more when it's on a white background.

L: Mmmm, Ja we are allowed to play more with a white background. [A *white background*] allows you to be more overboard with colour.

J: Ja, like here on this background [Referring to her current site] I wouldn't be able to put all the colours I wanted to, because one colour wouldn't go and this one wouldn't [compliment or match the other colour].

L: But how would you use the colour? Would it be background, or sort of like you have her little accents on the side?

J: I think stuff on the side. I don't know I have just seen all these sites with white backgrounds and the colours been splashed all over and I like those.

Her descriptions of her proposed colour choice displays an insight into the creative options it presents, but is directly informed by an awareness of how its appropriate use elsewhere on the Internet has been constructed. Julia's decision to use white as a background links directly to the WDD's approach to colour choices that prescribes that web designers "acknowledge that screen backgrounds work best in white or pastel colours" (Appendix Four: 3). The WDD conventions and values of applying a consistent and coherent approach to the design features of the site is noted by Julia when she refers to having borders around all her pictures and creating order and organisation. These acknowledgements of how white as a colour is best used in web design and how a consistent design approach can be achieved point to Julia's meta-knowledge of the WDD.

In a similar vein Grant's discussion of colour use on the internet displays an awareness of how a designer could influence user's experiences and impressions of a website through the choice of colour.

L: Colours! Do you think colour is important in site design?

G: Yeah! It just says something about the site. You can come to the site and the background could be black and everything is dark and people will say... "Oh this is a dodgy site". Yet you could have one that is very light, lightly coloured, bright colours and people will say this is a nice site, must be a very happy person who designed this site. It definitely does say something about, like blues and stuff and all the lectures we had on colour theory and stuff, blue does have a calming effect and people also associate it with being more stable than black.

L: Do you find that when you surf? [pause] Are you conscious of that when you are surfing the Internet? The colours? [pause] I know you're saying that is how it is [in relation to the theories of colour use], but is it like that when you surf?

G: Not really because I don't really take notice of that because I am more concerned with the information. So I don't notice it. Except if it's the background and it loads first.

L: So when you go to a site do you take notice of the colour?

G: If it's like very different then it will stand out for me and it's very different and it kinda works well. Most of the sites kinda like very much blend in, they relatively the same colour.

L: And this would be? What colour?

**G: A lot of them have white backgrounds and I mean a lot of sites have white background and you get to another site and it's a completely different one and it stands out and it's like WOW! And this is really really cool and then you actually start thinking that its really not so bad. And it sticks and makes you wanna explore the site because it's so out of the ordinary and you're not sure what else might be in the site.**

He clearly signals the recognition that colour choices are a reflection of the site type also making the same acknowledgement about the value of white as a background colour for websites and thus highlighting his meta-knowledge of the WDD.

### **Some synthesizing comments**

The analysis emphasizes that all participants in the study have made some progress in the levels of their understanding and meta-knowledge of the WDD with continued exposure to the Discourse. It also clearly illustrates the differential levels of this understanding amongst students. This is most notable when students are not only able to identify appropriate or inappropriate design decisions but provide detail descriptions and elaborations using meta-knowledge of the Discourse to frame their motivations and discussions.

### **Linking the websites and the interviews**

The distinctions drawn between the data moments provide different vantage point for describing student performances (via the websites) and meta-knowledge (in the interviews) of the WDD. The difficulty of attempting to benchmark student functionality using the continuum metaphor first described on page 54 is however acknowledged. Students sometimes hold multiple positions on the continuum, like Julia and Nandi, or no position at all, as in Richards's case. Most students, except Richard, do however show continuity between their levels of performance in web design and their meta-knowledge and expression of the WDD. Students whose websites displayed strong or increased levels of interdiscursivity also expressed an increased awareness and ability to use the WDD as a resource in their decision making activities in the act of site design. In this respect they are starting to use the WDD as an "identity kit" that provides the appropriate set of words and behaviours enabling their recognition as web designers (Gee, 1990:1996 and explained in Chapter Two). Their

WDD performance and meta-knowledge suggest fluid and elaborative levels of functionality. Students in this categorization would be Grant and Julia.

Selo and Felicity's websites showed an incomplete and fragmented reliance on and reconfiguration of manifest intertextual elements from both inside and outside the WDD. They also expressed a less detailed awareness and inconsistent use of the Discourse. Their Discourse practices and meta-knowledge indicate a more constrained or restricted level of functionality to employ the Discourse rules, conventions, values etc. Based on the analysis, Nandi's performances and meta-knowledge straddles these extreme continuum positions. Richard's performance evidenced by an incomplete and semi-functional website suggests low levels of practical ability, yet during the interviews he displayed high levels of meta-knowledge awareness of the appropriate use of the WDD.

Considering the intertextual analysis of the websites and the content analysis of the interviews suggests that both acquisition and learning activities have informed how students have obtained the WDD. Some speculative suggestion to account for the differential fluency of their WDD performances and meta-knowledge are made in the Interpretation chapter, with some practical implication suggestions considered in the Conclusion.

In the Interpretative chapter which follows, I consider how the analysis has assisted in answering the research questions.

# Chapter 6

## The Interpretations

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This research study posed two research questions

1. How are Discourses reflected in the design decisions made by students in their personal websites?
2. What are the implications for web design literacy in an academic setting?

A key issue revealed by the analysis is that students have a differential experience of using the WDD in both their performances and meta-knowledge expression. The main discussion of this chapter is focused on answering the first question, conscious of the differentials noted by the analysis. To answer the question the discussion will consider the following aspects: how Discourses are used in the web design decision making process; how interest shapes decision making and how student design decisions are recognized in the WDD. This discussion provides the necessary grounding from which the implications for teaching web design literacy in the Skills subject (implied in the second research question) can be addressed. Some practical solutions as they relate to question two are described in the Conclusion chapter.

### **Using Discourses to frame the design decision making process**

The analysis shows that students draw readily from a repertoire of various Discourses they have to inform their design decisions and the act of producing their personal websites, a notion that Paxton's (2004) study into intertextuality and student voices in economic essays also reveals. By identifying intertextual elements the study has established that students draw from varying interpersonal, artistic, digital design, technical and literary Discourses in the content, graphic design and production of their websites. Kress suggests that "...we always draw on the resources which we have available to use for the purpose of making the representations that we wish or need to make" (2003:82). The meaning making environment (of the Web) frames how the imported or borrowed elements might be used, but also that students can only borrow from the resources or Discourses they have available to them. Gee (1996) argues that

certain social groups filter aspects of valued secondary Discourses into their children's socialization in an attempt to advantage their acquisition and performances in Discourses encountered later in life. As a result there will always be differential access to and the use of the kinds of resources deemed appropriate within the WDD as noted in the Discourse use of Felicity and Selo in comparison to those of Julia and Grant.

Gee (1999:17) states that not only are there "...innumerable Discourses in any modern technological urban-based society" each individual may be "... a member of many Discourses" (1996:ix). This is seen in the study where in varying degrees students are able to either draw from the WDD or appropriately reconfigure elements from prior Discourses to 'fit' into the conventions, rules and style privileged by the WDD. The continuum which I developed and describe in Chapter Four, allowed me to trace and relate how students use of manifest intertextuality and interdiscursivity in their website practices provides further evidence of how students use their Discourses in the web design decision making process. Kress suggests that as we become more integrated into the 'culture' or Discourse, we become more socialized into the ways of the Discourse. Our meaning making resources, i.e. websites, therefore becomes more infused with the social and cultural signifiers of that Discourse (Kress, 2000:156). On the continuum this kind of 'infusion' in the websites would signal a strong use of interdiscursive elements. Websites that resemble, draw heavily from and are shaped by the WDD rules and conventions are clearly foregrounding the influence of the WDD in the design process.

### **Interest as a driver for design decision making**

Student design decisions are infused with the range of their available Discourses. Considering the range of student primary Discourses, a Discourse associated with Arts and Crafts is a significant feature of Grant's home, while notions of a Discourse of determination and self efficiency is foregrounded in Julia's family setting. Interestingly an Artistic and Design Discourse is signaled by Nandi, Richard and Julia as being part of their secondary Discourses. In this main layer, various sub-layers of the Discourse are noted. Nandi indicates an inspiration by classical fine-art, Julia by contemporary fashion design and Richard's interest is located in artistic Discourses that represent street and underground artistic expression. Various schooling and social Discourses

also form part of students' secondary Discourse repertoire. Selo's engineering training is manifested in his strong technical design interest, while Felicity's western inspired fairytale-like Welcome blurb points to primary school storytelling discursive influences. Julia and Selo's social communication Discourses foreground a particular practice and understanding of interpersonal communication. The analysis also points to student utilization and reliance on the secondary WDD, with sub-layers of visual and technical discursive practices acting as a strong interest motivator. This brief Discourse classification attempt suggests a complex mix of Discourse location and inner discursive layers. This classification supports Kress and van Leeuwen's contention that within any situation individuals will draw from a range of their Discourses and use the ones "...most appropriate to the interest of the communication situation in which they find themselves" (2001:20-21).

The intertextual analysis further shows the extent to which students are able to appropriately reconfigure discursive elements from one context to aptly 'fit' the design and communicative environment of the Web. Kress suggests that this act of "...remaking of the resource is an effect of both the demands of a particular occasion of interaction and of the social and cultural characteristics of the individual sign maker" (2000:156). The communication environment, i.e. website design within the academic context, and the designers' interest, acts as the mechanism that directs how the imported or borrowed item or resource is transformed and configured (Kress, 2003:82). In the web design environment, students must be able to do two things, firstly, recognize that the design environment of the web is a highly visual one. Secondly, they must be able to draw from their available resources which must include suitable visual Discourses. When they are able to do this, a visual interest in their web design decision making is foregrounded. In this sense Kress's (1998, 2000) notion that interest is both personally and socially located in the students Discourse repertoire is confirmed. Problems arise when the Discourses students bring to the web design environment are either not regarded as appropriate to the new discursive context, or the students are unable to reconfigure them to 'fit' the new environment, as was noted in Felicity's use of the fairytale narrative (page 57) or Julia's contact page (page 64).

### Constrained by the visual interest demands

While the WDD privileges and values design decisions framed by a visual interest, the analysis also highlighted that students new to the WDD seem most constrained and challenged by the complexity and subjectivity of the visual and aesthetic dimension of the Discourse. Principally students experience difficulty in merging what can initially be perceived as a divide between the visual and technical demands of the WDD. Gee alludes to this type of conflict when he states that “Discourses need not and often do not represent consistent and compatible values – there are conflicts among them” (Gee, 1996:ix). As established earlier in Chapter Two, complete functionality in the WDD requires that students are able to bridge the somewhat artificial divide between the design (aesthetic) and development (technical) discursive layer of web design itself.

The analysis highlights that only students whose previous Discourses somehow compliments the visual, aesthetic and stylistic interests and conventions of the WDD appear comfortable with this aspect. This was reflected in both their performances and meta-knowledge, most notably those of Julia, Grant and Richard, and supports Gee’s position that there is an “advantage when any secondary Discourse is compatible with your primary one” (1996:142). These students’ primary Discourse and increasingly many of their secondary Discourses have strong visual elements and features that integrate seamlessly with the values, rules and conventions foregrounded by the WDD. Discourse compatibility can lead to a conflict-free entry period with reduced tensions between ‘competing’ Discourses previously identified on pages 21 and 22. Gee also cautions that where conflicts and tensions do exist, the acquisition of new Discourse could be deterred. (1996:145)

### Recognition work in the WDD

When discussing Discourse recognition Gee (1990, 1996) offers strong advice noting that

Discourses are connected with displays of identity, failing to display an identity fully is tantamount to announcing you do not have that identity, at best you are a pretender or a beginner (Gee, 1990:154).

If literacy equates with fluent control over a secondary Discourse, provision is only made for full mastery or an apprentice status. Based on Gee’s (1990, 1996) views and

regarded from the pedagogic environment, the analysis reveals that all the student participants are beginners or apprentices in the WDD. Considering only students web design performances, the analysis suggests all students are still grappling with the WDD conventions and rules. While Julia and Grant had some of their web design practices, like the creative and innovative interdiscursive inclusions noted on pages 66 and 67, recognized as fluent, overall this represents only partial control over the WDD, as the analysis also reveals their misappropriation of the rules (See Grants logo design on page 62, and Julia Contact page attempt on page 64). From an academic stance their four month exposure to the knowledge and practice of web design would certainly assign them with beginner status.

In the professional environment of WDD as noted previously, other recognition lenses are used. Performance and meta-knowledge of the WDD are distinguished into 'professional' and 'amateur'. Based on the differential levels of student WDD fluency revealed by the analysis, and in an attempt to consider how industry might recognize the participants' Discourse fluency, a secondary level of recognition is advanced, utilizing the 'professional' / 'amateur' distinction.

### What kind of beginner web designer are you?

Two core beginner groups are identified. The beginners exhibit constrained levels of performance in the practice of web design. This is matched by meta-knowledge ability that is restricted by the lack of awareness and expression of the WDD conventions and rules and an inability to use appropriate web design terminology. I believe Selo and Felicity fall into this group as both their web design performance and meta-knowledge would be characterized by amateur tendencies. Selo's interest signals an affinity to the web development realm of the broader web design Discourse, thus outside the more aesthetic and holistic framing of the WDD privileged in the Skills subject.

In the second group, the analysis shows performance and meta-knowledge levels that contradicts a beginner status. Julia and Grant's websites and reflective insights reveal a range of values and practices that industry would recognize as the professional application of the WDD. While industry insiders (and academics) would agree that

their journey to gain full mastery of the WDD will be a long one, there is a disjuncture between their current fluency levels and the extent of exposure to the WDD gained via the academic environment. Explaining this dysfunction unfortunately also hints at a possible constraint of this study, i.e. its limited scope in accounting for a range of factors that might influence the rate at which students gain fluency in the WDD. I would like to offer some speculations that include the influence of student motivation levels to complete the assessment; how the desire (or lack thereof) to enter the WDD affects student willingness to engage in the WDD practices espoused in the classroom; whether certain other secondary Discourses support or complement either the aesthetic or technical orientations required by the WDD and if the academic environments where students learn and acquire the aesthetic ('Skills') and technical (Application and Electrotechnology) skills and competencies of the WDD influences the differential fluency noted in the analysis.

Then there are Richard and Nandi whose WDD fluency levels I believe fail to 'fit' the 'professional' and 'amateur' categories suggested. I want to argue that Gee's (1990, 1996) concept of 'mushfake' provides a useful means whereby these students' engagements and functionality in the WDD can be evaluated. Gee suggests that mushfake of a Discourse refers to the "...partial acquisition coupled with meta-knowledge and strategies to make do" (1990:159).

Richard's fluent expression of WDD meta-knowledge in the interview failed to match the constrained web design practice evidenced by his incomplete website. Richard's mushfaking I believe resides more in his ability to use a strong visual awareness of his incomplete website combined with an apt communicative interview approach to get me to recognize his potential to perform appropriately in the WDD. Whether this kind of mushfaking will assist Richard in future recognition activities in the WDD is uncertain.

'Making do' in the WDD however holds a different enabling potential for Nandi. Nandi's performance levels in web design suggest an unevenness in the application of various Discourse rules and conventions, indicative of a beginner grappling with the complex and dynamic nature of the WDD. Her meta-knowledge awareness, while not

as eloquently expressed, reveals a strong understanding of the WDD to account for her design decision making and uncover new insights into what might be done differently. Together they signal to industry her beginner status, but based on the strength of her meta-knowledge a beginner who has the potential to become a master in the WDD, especially if she can benefit from a wider Discourse of equity espoused in the institutional context.

### **Academic implications**

Accepting Gee's definition of literacy as mastery of a secondary Discourse noted on page 30, the academic environment becomes a site where web design literacy can be obtained. The analysis reveals student levels of performance and meta-knowledge of the WDD and opens the way for Gee's learning and acquisition continuum to be utilized in reviewing the manner in which students gained access to the WDD.

All students were able to articulate meta-knowledge of the WDD, with four participants' assessments in the research context, displaying fluent expression. While this might simply be a function of continued exposure and assimilation time in the Discourse (based on the four month gap between the data collection moments in the study), it also points to the pedagogic practices of the web design topic. It suggests the foregrounding of learning activities. According to Gee (1990, 1996) students' ability to reflect and evaluate their websites using the meta-knowledge of the WDD provides evidence of 'learning'. "We are better at performing what we acquire but we consciously know more about what we have learned" (Gee, 1996:139). But for Gee mastery of a Discourse can only take place via acquisition and cannot be taught whether in a classroom or elsewhere. He continues by stating that "...time spent on learning and not acquisition is time not well spent if the goal is mastery in performances" (1996:144). Thus if the WDD is primarily about the performance of web design, the classroom activities should focus on acquisition. For teaching that leads to acquisition, students must be engaged in a master-apprentice relationship in the Discourse and the classroom must become the site of apprenticeship and social practice of the Discourse (Gee, 1996:139).

The analysis of student performances in WDD suggests that many students are grappling with applying the practices of WDD through the act of website design. Overall their meta-knowledge ability appears more fluid. This suggests that the pedagogic environment of the web design topic places a secondary focus on the acquisition process<sup>1</sup>. This is possibly because, as Gee argues apprenticeship into the social practices of the Discourse can only be guided by those who have already mastered the Discourse, and as a WDD 'partial outsider' I cannot rightfully take on this role. So how then can Julia and Grant's levels of performance in the WDD be accounted for? Again Gee offers an explanation, stating that "...classrooms that do not properly balance acquisition and learning, simply privilege those students who have already begun the acquisition process outside the classroom" (1996:139). Certainly for Grant, who had already produced a website prior to this assessment, direct acquisition of aspects of the WDD had already taken place.

Justifying the constrained performance and meta-knowledge evidenced by Selo and Felicity, Gee would advance the following argument. Having not mastered the WDD but being required to use it, these students might have resorted to the following strategies: a) falling back on their primary Discourse adjusting it to fit the newly required functions of the WDD (as with Felicity's Welcome blurb), b) attempting to use another related Discourses (the technical focus foregrounded by Selo) or c) using a simplified or stereotyped version of the WDD (like the borrowed paw prints in Felicity's navigation bar) (Gee, 1990:153). I argue that unfortunately these students' prior Discourses (especially their lack of a particular kind of visual literacy) offered limited access to the new demands of the WDD, acting instead to signal their 'outsider' performance status. Their failure to adequately 'learn' and articulate the meta-knowledge of the WDD points to possible conflicts that relate not only to the WDD, but also the academic Discourse meant to scaffold their learning of the WDD in the first place. Gee refers to "facilitating factors", i.e. correlation between primary Discourse features and the new Discourse and support provided by the home or family to the new Discourse, which often do not exist for disadvantaged students. He continues, arguing that these students are then further hampered because traditional classrooms are poor

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<sup>1</sup> This statement is made conscious that the study (noted on pages 93 and 101) is unable to verify the influence of the other MM Tech subjects on student performance ability in the WDD.

at facilitating acquisition (1996:146). This might be alluding to a double Discourse barrier in that students prior Discourses fail to provide access to the academic Discourse of the classroom and without this they are unable to gain access or learn the content of the Discourse being taught.

### **Mushfake: an access strategy**

Nandi however sheds the most encouraging light on the pedagogic environment experienced in the web design topic and 'Skills'. Unlike Julia, Grant and Richard whose acquisition activities benefited from their prior complementary Discourses, Nandi's prior Discourses do not seem to overtly privilege her access to either the WDD or the academic Discourses (in fact at a surface level, they seem to resemble those of Selo and Felicity), yet both her performances and meta-knowledge are recognized as appropriate. Her mushfaking ability signals that the 'Skills' classroom environment does hold possibilities to engender a particular kind of access to the WDD. Gee, acknowledging that true acquisition leading to full fluency in a Discourse is not always possible, offers the notion of mushfaking as a viable alternative (1996:147). Gee proposed that classrooms "...ought to produce 'mushfaking', resisting students full of meta-knowledge" (1990:159).

### **Playing the game of web design - an alternative interpretation with similar conclusions**

Gee's concept of Discourse has been used to explain students' differential access to the web design practices in this thesis. I would like to offer a brief overview of an alternative stance using Bourdieu's (1984) concept of practice. Bourdieu argues that any practice is the "...result of various habitual schemas and dispositions (habitus), combined with resources (capital), being activated by certain structured social conditions (field) which they in turn belong to and variously reproduce and modify" (Crossley, n.d: online) Thus [(habitus) (capital)] + field = practice (Bourdieu, 1984 in Raey, n.d: 10) Each field is likened to a 'game' and this metaphor is useful in trying to understand how the social aspects of web design (field) impacts on, shapes and is reshaped by the individuals dispositions and resources (habitus and capital) who play the game. (Bourdieu and Wacquant, 1992:98). Web design has its own goals, rules,

cultural forms and peculiarities like the aesthetic and technical distinction. Students who come to MM Tech want to 'play the game' of web design. They bring along their habitus and capital (which is different for each student) that helps them to develop a 'feel for the game'. Students who have certain dispositions, habitual schema and competencies (e.g. visual awareness) along with core resources (academic and visual literacy) are able to develop a 'feel for the game' a lot quicker than those whose habitus and capital are regarded as not having value in the 'game' (field). While the Skills subject attempts to build or develop certain resources, (web design literacy) in students as required by 'the game', this is dependent on the players' habitus and value they award to 'playing the game'. How students 'play the game' (practice of web design) is related to the interaction between their habitus, capital and state of play of the game (what is valued) and if their location in it (field) is recognized.

Both interpretative lenses allude to similar conclusions, that the social basis of education and web design is fashioned to provide differential access to certain groups. The challenge however remains to balance out that inherent inequality, a consideration the Conclusion chapter attempts to address in relation to the Skills subject.

# Chapter 7

## The Conclusions

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This chapter identifies some practical implementation approaches that directly reflect and support the analysis and interpretation of the study. The conclusion seeks to provide practical answers to the second research question that asks “What are the implications for web design literacy in an academic setting?” The discussion focuses primarily on the Skills subject, with tentative insights into the MM Tech curriculum being advanced. With specific impact on the Skill subjects the implications noted relate directly to my pedagogic strategies as these are regarded as a means whereby access to the web design Discourse can be facilitated. In closing, while the study’s limited scope is identified as its key constraint, its major contribution is in illuminating a valid pedagogic approach to enhance student access to the Discourse of web design.

### **Curriculum implementation possibilities for ‘Skills’ 1**

#### Scaffolding the visual interest required by the WDD

The study clearly highlighted the visual focus and interest of the WDD. The WDD requires that students are visually ‘literate’, yet based on their disadvantaged schooling and economic backgrounds (highlighted in the Introduction) many MM Tech students who enter the programme have limited fluency in visual literacy. This was seen in the difficulty that some students had when required to use a visual interest to inform their design decision making. “Visualization is seen as an unproblematic kind of translation from one semiotic mode into another – as a simplistic kind of translation from one language to another” (Kress, 1998:55). While the Web design topic acts to introduce and familiarize students with the WDD rules and conventions, the curriculum itself provides very limited opportunities for either acquisition or learning activities that stimulate or develop students’ awareness of visual design, failing prey to the translation problem identified above.

As a direct consequence of initial analysis work derived from this study in November 2005, I successfully motivated for the inclusion of a visual design content segment in the curriculum structure of the Skills subject to accommodate this identified limitation. In 2006 a Visual and Design Literacy course was offered to first year students structured along a 16 week non-compulsory programme. Its main goals were to facilitate exposure to the core principles, practices, ideas and appreciation for the concepts of design, visual design, graphic design, design elements, visual literacy and perception via an acquisition type approach to the pedagogic engagement. While the impact of the programme cannot as yet be established, its inclusion in the curriculum suggests an acknowledgement of the need to scaffold and develop visual interest and literacy required by the WDD via the curriculum.

### Balancing acquisition and learning activities

Gee's contention that good teaching is able to accommodate acquisition and learning activities has served as a core evaluative principle for my pedagogic framing of the web design topic and Skills subject. The study highlighted the foregrounding in the curriculum of 'learning' at the expense of acquisition type activities. The following practical pedagogic interventions are being considered to create the balance between learning and acquisition activities deemed appropriate and to off-set my partial 'outsider' status in relation to the WDD.

- Create structured learning activities that allow students to use the Web more intensively to model their design activities.
- Create opportunities for students to explore and reflect not only the conventions and principles of web design, i.e. meta-knowledge, but also the values, behaviours and attitudes associated with web designers. The modeling of these behavioural qualities should also become a focus of the pedagogical environment.
- Create opportunities for industry experts and web designers to engage and interact with students via informal talks and possible mentorships, thus stimulating acquisition type engagements with the Discourse 'masters'. To this end I have just recruited three MM Tech graduates working in industry to act as informal assessors. They will evaluate student assessment work based on industry standard

and provide students with feedback of how their performances are recognized from an industry perspective.

### Reframing the developmental progression benchmarking for students

The reconsideration of student development progress in web design has been another direct outcome of this study. A more realistic view of what students' meta-knowledge and performance levels should reflect after one semester on the course has been adopted. Nandi's experience is now considered as the typical developmental trajectory, those of Julia and Grant are seen as the exception. My judgements in relation to students web design ability has acquired a level of refinement and sensitivity acknowledging the differential ways in which students gain (and often struggle with) access to the WDD. The fundamental influence of prior Discourses in shaping the nature of their access to the Discourse (WDD and academic Discourses) has been strongly acknowledged in the new curriculum. Gee advises that students growing ability must be supported "...even when it barely exist (making it look as if they can do what they can't really" (1996:145). This is a lesson I hope to apply when assessing the 2006 cohorts' offering of personal websites.

### Curriculum possibilities for Multimedia Technology Programme

The main contribution of this study is the tentative insights it has provided into how Discourse can be used in an educational environment such as multimedia technology, to understand both the curriculum practices and student experiences of the curriculum. Accepting the definition of literacy offered by Gee (1990, 1996) as fluency in a secondary Discourse creates an appreciation of the academic literacy practices developed within the MM Tech curriculum. This is particularly pertinent in relation to using the term web design literacy to describe student literacy practices and the pedagogic interventions to enable success in the MM Tech academic environment. Similar to the Skills subject the notion of appropriately balancing acquisition and learning activities in the classroom is regarded as paramount. The study also holds the possibility that I might be able to share insights generated from this investigation with colleagues, encouraging dialogue regarding how student make meaning in our disciplinary environment. The Discourse approach encourages a view that all students

who enter the university do so with a rich set of discursive resources which allow them to engage and remake the practices of the academic environment. Such an approach can help to challenge deficit model perspectives that often ascribe student success and failure in HE to whether or not a student possesses the 'required' cognitive abilities or technical skills.

### **Limitations of the study**

When considering any learning environment the number of variables that shape and impact on actual learning outcomes are not only multiple but complex. In this study I was constantly reminded of trying to account for what influenced student design decision making. As a Masters by coursework research investigation the study's scope was limited and as a result was unable to fully consider either the range of possible influencing variables or an in-depth investigation of them. Influential aspects regarded as pertinent but not directly investigated in this study are: the broader academic environment of MM Tech (in particular the impact of other subjects), the broader Discourse of multimedia and web design, the actual pedagogic activities and curriculum structures both within the 'Skills' and other subjects on the course, the influence of specific student primary and secondary Discourses (e.g. schooling) and the student motivational levels to enter the WDD. While the study has identified certain student Discourses, like most of the factors noted above, their exact influence on student design decision making cannot be completely accounted for.

### **Conclusion**

This thesis represents an instance of my engagement as a reflective practitioner to explore how access opportunities into the WDD can be enhanced via pedagogic interventions. The theoretical concepts of Discourse, interest, intertextuality, literacy, acquisition and learning were used to ground the conceptual framework of the study, while an interpretative case was utilized as research method. The research considered two key data sources: personal websites and semi-structured interviews. These accounted for student performances in and meta-knowledge of the WDD and revealed evidence of how Discourses were reflected in student design decision making in their personal websites. The differential experiences of student access to the WDD prompted

the consideration of how learning and acquisition activities could be used in the classroom to facilitate more balanced performance and meta-knowledge expression. Mushfaking was identified as an access strategy suitable to the contextual realities of the 'Skills' classroom. Further practical curriculum interventions were advanced that attempted to highlight the importance of balancing learning and acquisition activities to ensure web design literacy.

It would seem that access to this Discourse was an increasingly elusive concept especially for those students whose Discourses actively constrained them. Theoretically, this rather defeating scenario was constantly reinforced with even an optimist such as Gee (1990, 1996) arguing that overt teaching could never provide the type of acquisition required for Discourse mastery. But what can be done by a teacher considered an outsider to the WDD? In order to integrate acquisition type activities into the classroom it is important for me as a WDD 'outsider' to have a refined sense of what the WDD is and how it is recontextualised within my practice setting. In this respect the entire research process has helped me to describe and understand the nuances of the WDD and its recontextualised form within the MM Tech curriculum. This enhanced understanding of my practice context will allow me to scaffold appropriate web design practices in the classroom, while being more aware of how to recognize appropriate student performance and meta-knowledge of the WDD. The manifest intertextuality and interdiscursivity continuum is a direct result of my conceptual analysis and use of intertextuality in the WDD. I regard the continuum as a vital recognition tool for my classroom. While the continuum can act as a literacy level indicator, it has an added academic function in that more appropriate and direct scaffolding strategies and suggestions can be communicated to students.

This study has furthermore illuminated a valid possibility in addressing the challenge of epistemological access and while it might not provide the ideal solution, it has created the necessary hope and intellectual grounding for finding that answer. It acts as the necessary impetus to drive my continued reflective practitioner engagements. This possibility was presented in the form of Nandi's experience documented in this study. While the academic environment of HE, particularly that of MM Tech at CPUT, does

not always provide the necessary circumstances for the kind of acquisition activities Gee is suggesting as vital in acquiring the WDD, the academic environment embedded by access and equity Discourses has been able to provide access to the web design industry via mushfaking. I believe that only in industry can real acquisition of the WDD take place. However without the bridge that the Skills subject and more broadly the MM Tech programme as a whole offers to many students, especially those whose Discourses disadvantage them, they will have very limited access possibilities to the web design Discourse.

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# A Post-Script

Reflecting on the hidden implications

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As I started the data collection and analysis tasks of this study certain realizations confronted me. These were insights that I could not ignore because they affected the core of what I believed and valued as a higher education lecturer and ultimately as a person. I struggled to find a suitable place to share these concerns but strongly believed that I could not ignore them. A research activity often yields different results, the tangible ones that relate directly to the scientifically framed and methodologically valid empirical pursuit, and the intangible or hidden ones that indirectly affect those involved in the study in a number of ways often unrelated to the empirical intentions initially set out by the research. This post-script is an attempt within the confines of this thesis to reflect on the personal outcomes of this research. These outcomes impact on my personal pedagogic practices which have not always fallen within the frame of the study's scope and objectives but are still valid within the subjectivity afforded by an interpretive design. The value of this reflective account is that it reveals outcomes that speak directly to me. These very personal outcomes, which are at times uncomfortable, have fundamentally altered my perception of the role I play in facilitating access in the academic setting.

## **The teacher-as-researcher: uncovering the personal bias**

During the study I become acutely aware of the fundamental contradiction of attempting to fulfill two separate roles and identities, i.e. the teacher-as-researcher. All the literature I consulted talks of this possible constraint in abstract terms and suggests methods and approaches to minimize it. My primary role as teacher, seemed to cast a shadow and infect not only my behaviour as a researcher but more importantly shaped the interpretative lens I used to view and analyse the data. I also had to concede that irrespective of how I designed the study, students would invariably see me as primarily their teacher in this study regardless of the 'false' distance I tried to create by introducing myself as 'the researcher' during the interviews.

My teacher role afforded me a special closeness to the research context and allowed me an insider's view. I was able to see the subtleties of students' expressions both in their website design and during the interviews. Instead of dismissing certain incoherences as lack of understanding these were located as part of the total experiences I had shared with students, rather than just the single event of the interview context. In this sense I was allowed a more generous evaluation of their meaning making experiences.

### The interview experience - My Discourses follow me around

The interviews provided the most uncomfortable experiences I had during the entire research process. Here I was most blatantly confronted not only with my own biases, but with the prejudices that confront and challenge anyone when they have to deal with someone who is deemed to be 'outside' their Discourse. During the interviews it seems I had two separate experiences, differentiable dependent on who I was interviewing. In these instances I either privileged my teacher or researcher role.<sup>1</sup> With certain participants it felt as if my teacher identity was foregrounded. I constantly felt that the questions I was directing at the interviewees about their design decisions were simply an interrogation regarding their understanding of the course content. I could not avoid feeling that I was imposing some unconscious sanctioning of their answers if they failed to express it in the ways I demanded, based on the content covered during the topic. Even when I attempted prescribed interview techniques to elicit more discussion about a particular aspect I could not help but feel a certain 'inquisition-like' quality transcended the event. I felt this further signaled to the student that they had got something 'wrong' and I was now demanding the 'correct' answer as I might have in class.

As in my classroom, students who were more articulate, confident and even challenging of my role were engaged in a different way during the interviews. The interview seemed less like an interrogation and more like an engaging discussion between two peers, probing and challenging in an attempt to get behind the motives for

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<sup>1</sup> The interview transcripts bear witness to this. Those transcripts included in the thesis provide some indication of this although not in an extensive form because their inclusion was meant to illustrate different intentions. Consider the excerpts on pages 73, 75 and 81 which are reflective of my engagement associated with a 'researcher' role. The excerpts on pages 74, 76 and 80 reflect the 'teacher' role with a more question-answer type engagement.

decision making in a non-threatening way. Why did I have these two different experiences and would an outsider have had a similar experience?

Reflecting back I have to ask myself, were these different experiences simply an expression of my own bias towards others deemed outside the Discourse? Does the reflection unmask the preferential treatment I bestow on students who early on signal that their Discourses match those demanded in the pedagogic context? I came to the following rather unsettling but honest conclusion. While engaging in a study that I hoped would provide evidence for my hypothesis that the academic environment in which I work differentially privileges students whose Discourses matched those of the curriculum – a curriculum which I felt I had deconstructed for my students in an attempt to create more equal access for the majority of my students – I was now faced with the realization that I was possibly intimately involved in that privileging and differentiating activity myself. I was (un)consciously involved in a gatekeeping activity for the Discourses which students encountered in my classroom – the academic and web design.

I would like to suggest an alternative consideration of this differential interview experience described above using the theoretical insights generated by Bernstein's (1966) elaborated and restricted codes.<sup>2</sup> Using the concepts broadly, Bernstein would argue that the interview situation and the social relationships between the participants, i.e. lecturer and student, directs which coding orientation was privileged. "The codes themselves are functions of a particular form of social relationship, or more generally, of qualities of social structures" (Bernstein, 1966:255). Furthermore the theory notes that everyone is capable of possessing both elaborate and restricted codes, with middle class children socialized and expected to possess and use both codes (Bernstein, 1966:259). In the first experience I described on page 105, both participants in the interview used more restricted codes suggesting that the social relationship reinforced a commonly shared identity (of teacher and student) and expectations (teacher asks questions, student responds with correct answer, teacher will continue to prompt until the correct

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<sup>2</sup> I acknowledge the controversy generated around the use of these concepts. In using the concepts here I believe I am capturing the essence of Bernstein's argument which suggests that code usage is determined by the social context and is not necessarily a prescription of social class.

answer is provided) of how we would relate to each other. In the other situation, students were able to view the interview differently. As Bernstein notes elaborated code use will arise in social relationships where members are required to select verbal arrangements to fit the specific referents and where the intention of the other person cannot be taken for granted (1966:256). In this second situation the research/interview environment was perceived by both interviewee and researcher as different and more 'open' than the classroom environment, and participants were able to take on different roles. "If a restricted code facilitates the construction and exchange of communalized symbols, then an elaborate code facilitates the verbal construction and exchange of individualized or personal symbols" (Bernstein, 1966:257).

It is ironic but I believe the more 'objective' reality bestowed on this interpretation because of my researcher role helped me to uncover these inherent prejudices which I think all teachers have but may not acknowledge. Similar to the interpretations generated by this research, this reflective exercise has uncovered the social basis of some of my personal biases which I believe also act to reinforce the differential access to the academic and web design Discourse experienced by my students. If I intend to take the issue of access seriously in the academic setting these insights cannot be ignored. Rather I should use them as a mechanism to critically reconsider the effects of all aspects of my pedagogic practices.

### **Answers to different questions**

As with most research undertakings, I have been left with more unanswered questions than the research has been able to answer. While I am confident that the research design has delivered its mandate, the complexity of researching a teaching context has been brought into sharp focus. The answers to the research questions have provided a hint of how students' Discourses impact on their design decisions in one instance of their web design practice, providing some implementation strategies to enhance web design literacy in my classroom. Yet the impact of many other factors that fell outside the confines of the research was not even considered. I have however been encouraged by the value that student voices have brought to my understanding of their experience of one aspect of a subject I am responsible for. It has provided a humbling element to

my practice as a teacher and suggests that I have a lot to learn from my students – maybe even more than they have to learn from me. I am encouraged that this research has provided this much needed opportunity for student insights, understanding and knowledge to be privileged.

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## Appendices

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## Skills Learner Guide

## DEPARTMENT OF INFORMATION TECHNOLOGY

## LEARNER'S GUIDE – Multimedia Skills 1

## SUBJECT GUIDE - PART 2 OF 2

<b>SUBJECT NAME:</b>	Multimedia Skills
<b>SUBJECT CODE:</b>	MMSD010
<b>SAPSE CODE:</b>	40510312
<b>SAPSE CREDITS:</b>	0.25
<b>NQF LEVEL:</b>	5a
<b>IMPLEMENTATION</b>	Y2005

## PURPOSE OF SUBJECT

Multimedia Skills serves as an introduction to the ideas and conceptual skills, which underpin the various communicative facets of the multimedia industry. It further seeks to develop fundamental learning to learn skills and strategies and communication skills required in a higher education learning environment.

## SUBJECT OBJECTIVES

On successful completion of this subject, the student will be able to:

- Examine and explore how communication messages are designed and produced for the multimedia environment
- Examine and perform basic information literacy skills and strategies within an academic context
- Practice and perform oral presentation skills incorporating the use of MS PowerPoint software
- Practice the design of a basic web site at a foundation competency level
- Examine the theoretical concepts that underpin the media and communication process in particular, mass media, advertising and the impact of digital communication structures
- Examine and perform project management skills and strategies for a basic project
- Examine and perform the writing and production of a simple narrative text and basic script and storyboard for a short video clip

## SCOPE OF SUBJECT

The coverage of this subject is limited to:

- A basic introduction and competency in information and academic literacy skills.
- A basic introduction to core presentation skills strategies and the development of basic competencies of practical presentation skills.
- A foundation level introduction to the fundamentals of web site design.
- A basic introduction to the field of media and communication and design.
- A fundamental introductory exposure to the core principles and strategies of project management for multimedia products.
- A fundamental introduction to the ideas of creativity and creative writing forms for video production.

## PRE- AND CO- REQUISITE KNOWLEDGE

It is assumed that following learning is in place:

- NQF level 4 or equivalent i.e. Grade 12
- English reading and writing skills

It is also recommended that the following be done in conjunction with this subject:

- Multimedia Applications
- Multimedia Equipment
- Electrotechnology

SPECIFIC OUTCOMES	ASSESSMENT CRITERIA	CCFO s (Refer to table below)
1. Demonstrate the ability to find a variety of written & electronic sources, access and capture information and present this information in a suitable fashion through the production of a basic written academic text	Assessment criteria for each specific outcome will be developed and implemented using various rating scales.	1. CCFO's 2, 4, 6 relating to AC1
2. Demonstrate a practical competency of effective oral presentation through group presentation using PowerPoint.		2. CCFO's 1,2,3,4,6 relating to AC2
3. Demonstrate foundation competency in the design of basic web sites.		3. CCFO's 1,2,3,4,5,6,7 relating to AC3
4. Demonstrate a practical competency in project management through the application and production of various project management tools using a case study.		4. CCFO's 1,2,3,4, 5,6,9 relating to AC 4
5. Identify and describe at a fundamental level how mass media communication messages especially advertising are used in the production of multimedia products.		5. CCFO's 1,2,3,4,5,6,7,8 relating to AC 5
6. Demonstrate an understanding of the various text genres by producing a basic script and storyboard for a short video clip		CCFO's 2,3,4,6,7,9 relating to AC 6

## CRITICAL CROSS-FIELD OUTCOMES (CCFO s)

1. Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made
2. Organise and manage oneself and one's activities responsibly and effectively
3. Collect, analyse, organize and critically evaluate information
4. Communicate effectively using visual, mathematical and/or language skills in the modes of oral and / or written presentation
5. Demonstrate an understanding of the world as a set of related systems by recognizing that problem-

solving context do not exist in isolation

6. Reflecting on and exploring a variety of strategies to learn more effectively
7. Being culturally and aesthetically sensitive across a range of social contexts
8. Exploring education
9. Experiencing collaborative projects / exercises where evaluation is team based

#### ASSESSMENT METHODS

This subject will make use of continuous, integrated, formative and summative assessment forms. Assessment methods will include written assignments and essays, practical demonstrations and observations of skills developed, take home exams, open book tests, peer assessments and group based projects. Assessment may be completed individually, in pairs or in groups. Students will be required to complete certain assessments where no assessment mark will be awarded; rather these assessments will serve to provide valuable feedback about levels of learning before summative assessment for the respective topic is completed.

#### ASSESSMENT CONDITIONS

Due to the range of assessment methods employed in this subject, conditions of each assessment will be dictated by the nature of the actual method used. Your lecturer will provide detailed guidelines of these. Rule and guidelines, which determine assessment conditions at the university, will however be enforced.

#### TEACHING AND LEARNING STRATEGIES

The course will be presented in the following manner:

- 1 three hour practical / seminar session and 1 lecture session per week. The practical session will take the forms of facilitated, interactive group activities that require students to actively engage and participate in discussions, debates and presentations. The lecture session will provide an opportunity for the lecturer and students to communicate course content and deal with logistical and administrative considerations regarding the course and assessments. Individual consultations with your lecturer outside of these periods are available on an appointment basis.
- Students are required to devote a substantial amount of time to self-study and independent research (+- 6 hours per week). Various weekly tasks will be set and students are required to complete this either on an individual or group basis outside formal classroom time.
- Students will also be required to use extensive learning resources which they are required to source using the institutional library and the internet.
- Students will be actively encouraged to participate in all classroom activities and develop their own insights, opinion, understandings and ideas. Group and peer co-operation is seen as a vital learning strategy that students will further be encouraged to develop and use.

LENGTH OF COURSE	
METHOD	NOTIONAL HOURS
Formal Lecturers	30
Tutorials	30
Laboratory	30
Practical / Assignments	100
Self Study	60
Other	0
<b>TOTAL</b>	<b>250</b>

#### RULES AND RESPONSIBILITIES

Students must familiarize themselves with all rules, policies and responsibilities as outlined in the Programme Guide.

#### SYLLABUS AND SCHEDULE

WEEK	TOPIC	REFERENCE
1 – 6	<b>Media and Communication Design I – Section A:</b> Information and academic literacies are regarded as the core skills to ensure academic success in a higher education environment. This topic explores the nature of information and academic literacy and assist in the development of competencies to find various sources of electronic and written information, explore strategies of accessing and capturing this information and finally, methods and procedures of presenting academic information in the form of essays. This segment of the course also explores and identifies the nature of the mass media with specific reference to the South African environment of print and broadcast media.	Core Notes, Textbook, Various Websites
8-16	<b>Media and Communication Design I – Section B:</b> The design and development of web sites form the foundation of what multimedia professionals are trained to produce. This topic takes a holistic view of the production of this form of media communication. The nature of the communication message is also explored with specific reference to the development of oral presentation skills and strategies before moving to more in-depth discussions of web design. In relation to web design the following issues will be investigated; target audience, consistency in design, elements that make for effective web design, common mistakes, the use of design templates and web site protocols and terminology.	Core Notes, Textbook, Various Websites
20 – 25	<b>Media and Communication Management I – Section A:</b> Most multimedia work is completed as projects. This topic seeks to provide at a fundamental level an introduction to the definition, processes, strategies and techniques associated with project management. Student will be invited to use the various project management techniques to define, plan, implement and close a basic project.	Core Notes, Textbook, Various Websites, Recommended Book
27 – 32	<b>Media and Communication Management I Section B:</b> Multimedia is essentially a creative media field. In this section of the course students will be provided with the opportunity to explore and develop their written creative potential and use analytic tools to evaluate the creative impact of print & broadcast advertisements. In this topic students will develop scripts and storyboards with the production of video clips and websites in mind. The creation and analysis of a print based advertisement will also be undertaken.	Core Notes, Various Websites, Recommended Book

# Assessment Brief and Marking Rubric

National Certificate in Multimedia Technology  
MMSD010 & MMAT010 – Term 2 Assessment Brief

Due Date: 9 June 2005 @ 2pm

Draft Consultations: 3, 6-7 June 2005 (by appointment with N Bawa & L Coleman)

## Design, develop and produce a personal website for yourself.

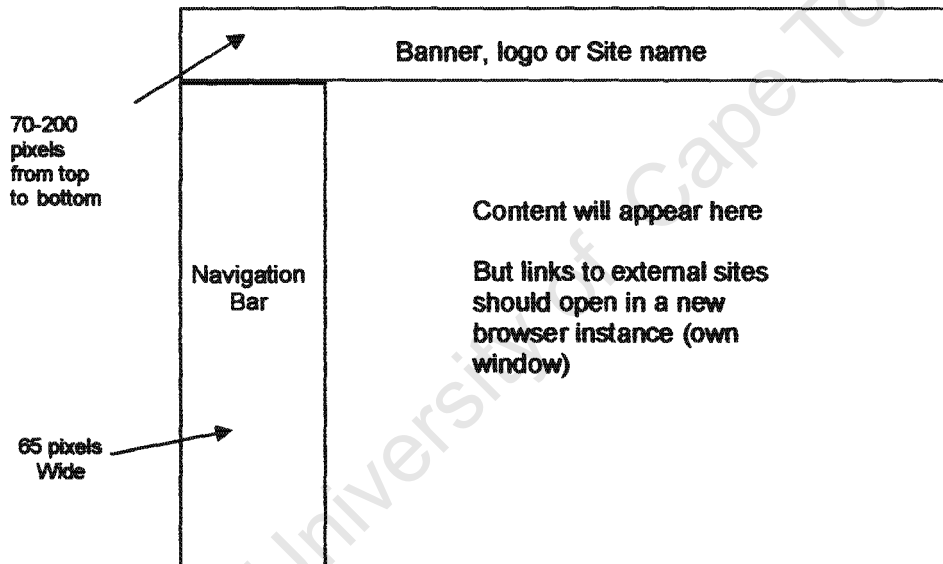
This is a joint assessment for MMAT010 and MMSD010

- o You have to produce ONE website but will receive marks for both Applications and Skills.
- o Both subjects will have their own assessment criteria and requirements.
- o Your site must adhere to all the specifications and requirements noted for each subject.
- o This is an individual task
- o Your final site must be copied uploaded to Moodle by the stipulated time

## Application (MMAT010) Specifics and Assessment Criteria

This assessment and will count 5% towards your final result. (50% of current 10% module)

1. The home page should have the structure as shown below



The page should (contain no framesets) tables must be used with no borders and should fit perfectly in a browser window for a screen resolution of 800 x 600, i.e. there should be no scrollbars if your monitor is set to 800x600. The main page should be called *index.htm*

2. Before you start constructing the web site, produce a template or page grid for your home page and each of the internal content pages on paper. This draft must be submitted to Nieyaaz Bawa by 20 May. If subsequent changes are made to the templates an updated paper draft must be submitted. The paper based draft will be compared with the completed version.
3. The left (cell/cells) should be (65 to 165) pixels wide and contain the navigation links. The look 'n feel and aesthetic design is not prescribed, however the information / content specified must be included.
4. Images and pictures employed, when clicked on should open a new separate window that should contain a bigger, centered image or picture.
5. There should also be an e-mail link at the bottom of the index page.
6. There should be a minimum of 4 working links on your navigation bar (3 of your own content pages including your home page, and one external absolute link to an external web page )Thus your navigation bar must contain both absolute and relative link options.
7. Must use an instance of css Cascading Style Sheets (You'll have to do some research on this, can also be found in the *html 4.0 folder*)
8. Must have an instance of some javascript on your page as well. You will need to find suitable scripts via research on the internet and incorporate this into you site. All script sources must be acknowledged on your site.

9. Use only relative links otherwise your pages will not work when uploaded to the webserver
10. Convert all images used to 72dpi as that is the resolution of a monitor and your site is designed to be viewed on a monitor (DUH).
11. Watch your file sizes for your images, make them as small as possible without degrading too much of the quality (JPEG & GIF)
12. Use of some sort of animation, flash object or animated gif e.g. animated banner.

**HAND IN:** The root folder must be placed on mrrtech on the date shown above. It should contain all the .htm files as well as the image files (in a folder called images) that are needed for the web page, keep all sources like psd files, original images as well as any other files you may have used in the process in a safe place.

### ASSESSMENT CRITERIA

- Use of small letters for your tags, doctype definition used, indenting your code, comments, using descriptive names for your images and pages in small letters only.
- Use of tables according to the specs above
- Working links. Please test your site by moving it to a new folder and check if all links work. Before submitting
- Planned website will be compared to the actual web site- see noted about amendments & changes
- Using sensible folder names to separate you pages and images
- Originality
- Plagiarism (if source code and scripts are not acknowledge on your site)

NB: This task should be hand coded that means no FrontPage, Dreamweaver etc... Only notepad must be used, I do have ways of finding out if WYSIWYG editors were used. Please keep copies of all your work including this website as people in your profession need portfolios to show to prospective employers. Also when we do Dreamweaver MX one of the tasks might require a portfolio.

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### Skills (MMSD010) Specifics and Assessment Criteria

This assessment counts 10% towards your term mark of 10%

- Ensure that your site fulfills the main aims of a personal website, i.e. serving your personal goals and devoted to your needs and interest
- Your site must consist of a minimum of 3 pages i.e. Home page and at least 2 content pages
- Content you should want to include in your site might include:
  - Your background history (where you came from, family background, schooling history), your CV, your interests / hobbies, your family (who are significant in your family, what values, principles and beliefs you share, what is important to your family) , your friends, your motivations/inspirations, samples of your work (Multimedia related or poems, drawings, etc...), links to other websites that expand on your interest
  - Your site must contain original text and photo's / images
  - Explore your creativity and aim to make your site original and uniquely YOURS

### ASSESSMENT CRITERIA

A checklist will be used for this assessment – this means that I will check that all the required elements as discussed in class are present on your site. Where elements are missing a penalty will be incurred.

- Home Page (all page elements required)
- Page Design / Layout (all required elements)
- Headers
- Footers
- Compliance with the 4 C's (Clarity, Consistency, Conciseness, Comprehensiveness)
- Content Editing (spelling, grammar, attention to detail for pics)
- Aesthetic appeal
- Originality and Creativity

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*Good Luck and Enjoy*

Lynn Coleman and Nieyaaz Bawa

# Skills Marking Rubric

National Certificate in Multimedia Technology  
 Multimedia Skills I MMSD010  
 Communication & Media Design I: Personal Web Site  
 Due 9 June 2005

Student Name	Student Number	TOTAL (65)

## Assessment Criteria

Home Page	YES	NO
▪ Logo /icon		
▪ Site name		
▪ Welcome blurb		
▪ Main context links / navigation		
▪ Search box		
▪ Bonus		
▪ Tagline		
▪ Contacts		
▪ What's new		
▪ Above the fold consideration or no scrolling		
Page Elements		
▪ Date		
▪ Author		
▪ Affiliation		
▪ Home link		
▪ Clear titles		
▪ Header		
▪ Page title		
▪ Site name		
▪ Logo / icon		
▪ Current date		
▪ Search box		
▪ Footer		
▪ Webmaster		
▪ Contact details		
▪ Duplicate navigation		
▪ Date, Creation date		
▪ Page Author		
▪ Copyright information		
<b>TOTAL (25 MAXIMUM POINTS)</b>		

	Highly Competent	Competent	Not yet Competent
<b>4'C'S (Clarity, Consistency, Comprehensiveness Conciseness)</b>	Compliance to all 4 aspects evident. Attention equally devoted to each aspect. 10 - 9 - 8	Incomplete attention & adherence to all 4 aspects demonstrated. Obvious gaps evident in approach to 4 C's. 7 - 6 - 5	Very limited adherence to 4 aspects. Certain aspects not considered at all. 4 - 3 - 2 - 1
<b>Content Editing</b>	Professional editorial considerations. High levels of quality evident. No remedial work required. 10 - 9 - 8	Satisfactory editorial considerations. Some careless oversights. Limited remedial work required. 7 - 6 - 5	Unprofessional approach to content editing. Glaring mistakes. Serious remedial work required. 4 - 3 - 2 - 1
<b>Aesthetic Appeal</b>	Outstanding look 'n feel. Attention to design clearly evident. Strongly complimentary to site content & purpose. 10 - 9 - 8	Pleasing & inviting look 'n feel. Some attempts to consider design evident. Compliments site purpose and content. 7 - 6 - 5	Poor design consideration. Haphazard & inconsistent approach to look 'n feel that doesn't compliment content or purpose. 4 - 3 - 2 - 1
<b>Originality &amp; Creativity</b>	Innovative, new and fresh approach to design. Personal and unique feel. 10 - 9 - 8	Ordinary design approach. Common standards and templates incorporated. 7 - 6 - 5	Dull, boring. Lacks any real attempt to show originality and innovation. 4 - 3 - 2 - 1
<b>TOTAL</b>	10 - 9 - 8	7 - 6 - 5	4 - 3 - 2 - 1

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 L. Coleman

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 June 2005

## Web Design Topic: Weekly Task Outline

At the end of this topic you will be able to...

- Recognise, identify and describe the basic characteristics of Web Design
- Explain the purpose of web design
- List and define the web design process
- Describe and identify basic web site design principles
- Demonstrate and apply basic web site design principles in the design of a basic web site
- Describe, identify basic web page layout and design principles
- Demonstrate and apply basic web page layout and design principles in the design of basic web site and web pages
- Examine and compare existing web sites using basic web site and web page layout and design principles

### Weekly Task (Week 1)

- Active Read of
  - o Student Topic Notes
  - o Web Design Virtual Classroom (in Core Notes)
    - o Chapter 1.2
- o Visit & Find different kinds/ examples of web sites and pages
  - o Ask yourself the following questions about the sites
    - o Who is this site intended for
    - o What kind of function / purpose is the site serving
    - o What do I like / dislike about this site
    - o Consider the 5 Forces – rate these sites based on the 5 Forces
      - o Come prepared to share your review with the rest of the class on Monday / Tuesday
      - o Bring along URL's of the sites you have visited

Topic aims presented to students at the first lecture of the topic.

### Weekly tasks (Week 2)

- Complete Process reading
  - Answer questions posed by Practical 2 on Moodle
- Surf the internet
  - Look for compelling and appealing sites
  - Critically review and analyse the site and its features based on classroom discussions & knowledge
  - Prepare a short (2 min) presentation that highlights the features you really like / dislike about the site (bring URL or slideshow to class)
  - Students in each group will have opportunity to show the class their finds



### Weekly Task (Week 2)

- Read – Site Design
- Show and tell activity
  - Find a suitable website
  - Consider quality of the interface design features
    - Have basic elements of a web page been considered
    - Select 3 Basic Interface Design features discussed today
      - Evaluate the site and decide if these features have been incorporated
  - What is your opinion of the design quality of the site

### Weekly Tasks (Week 3)

- Show n Tell group activity
- Find a website to present to the class
  - Describe and provide support for each characteristic element you can identify
    - Type of site
    - Intended Audience
    - Interface design features (select 3-5 specific aspects)
    - Navigation
    - Structural organisation of information
    - Home Page
  - Prepare presentation of your ideas for class on Mon/Tues



## The Web Design Discourse

The following values, principles, design conventions, understandings and ways of working, thinking and practices inform the Web design discourse (WDD) referred to in this study.

Essentially the Discourse requires an individual to draw on and use two seemingly distinct but mutually connected areas of expertise, namely the aesthetic and technical. The design and development of a web page requires the bringing together or merger of this seemingly dichotomous relationship between the aesthetic/visual and technical. The aesthetic and visual aspects of the Discourse are often referred to as the **design** (as in Web Design/ Designer) activity of website creation and accommodate all the conceptualization of how the user will experience the content, organisation and look and feel of the site. The technical aspects are commonly referred to as the **development** (as in Web Development / Developer) focus of site construction and relates primary to ensuring that the site works from a technical or engineering stance. Here skills and understanding of the various software (Dreamweaver, Flash etc) and coding languages and web authoring tools e.g. HTML, XHTML, Java Script and Java that allow the design to be realized are paramount. In industry Web design and development teams in larger companies will bring together specialist in these two areas to fulfill separate design or development roles; however in smaller companies or self employment situations these roles would be merged.

Web design as conceptualized in the Multimedia Skills 1 subject is strongly informed by the design focus of web design. The focus is on foregrounding the roles, functions and activities of the **Web Designer** as appose to the web developer which is catered for more generously in the other subjects of the Multimedia Technology programme. As such the WDD presented here is embodied in the course curriculum aims of the subject. A web designer in the Discourse will be recognized has having taken on the following values, behaviours, approaches to design, practices, rule and conventions.

**A web designer who is part of the WDD will be aware of and apply the following general principles and ways of viewing web design as a practice:**

- See a website as a means of communication.
- Acknowledge that there are different kinds of sites (genres) which serve difference purposes, and these types in turn determine the design decisions made.
- Acknowledge that the site purpose and the clients' needs always determine and influence the overall site design.
- Recognition that a website consists of a home page and a series of content pages. Content pages have different function and design templates depending on what kind of content is being displayed.

## APPENDIX FOUR

- Have a strong awareness of current design trends used on the Web and be conscious of various professional body standards – such as World Wide Web Consortium (W3C).
- Apply and reconfigure design ideas or design elements borrowed from other sites rather than simply copying them directly.
- Understand the limitations or constraints of the medium (Internet) and use both technical and design creativity to work around these limitations: Some of these limitations are
  - Bandwidth constraints which impacts on file compression and downloading time of pages,
  - Screen resolution of monitors is not optimal for reading online or displaying visuals in same depth as print,
  - Limitation of screen size display requires that screen size is limited to screen resolution of 800X600 pixels so that pages will display on standard user monitors.
  - Monitors can only display a limited amount of colours, thus only web safe colours should be used.
- Acknowledge the importance of paying attention to detail in relation to the creative and technical elements. This is regarded as a paramount work ethic for web designers, i.e. the need to pay attention to the quality, resolution and display of visual elements, appropriate use of writing styles and quality assurance measure for all content on a website.
- Ensure that their web design reflects a balance between creativity, innovation and functionality.
- Have a creative approach to the aesthetic aspects of the site design, but also have technical knowledge to make the design concept a reality and function properly.
- Have an open approach to constructive criticism of your design work and be self critical of their work. They also need to know what accounts for good and poor design practices in relation to both the technical & aesthetic aspects of web design and development.

### **A web designer will understand and apply the following design conventions.**

- Acknowledge that Home pages serve a different purpose to internal site pages. Home pages need to be visually appealing and generally look different to internal pages.
- The graphic user interface (GUI), they design for a website must allow users to interact and move through the sites content. They therefore need to understand how the browsers interface functions and ensure that their sites' internal interface has a complementary function.
- Recognize that web pages have basic elements. All pages they design must include the following basic elements:
  - An informative title (page name)
  - Creator identity (site ID or logo)
  - Navigational aid / bar (Site sections)
  - Link to the home page (to prevent dead-end pages)
  - Date (creation or current date)

## APPENDIX FOUR

- Recognize that web pages have headers and footers that have specific functions and contain specific information – i.e. header will contain site ID, navigation bar, while the footer would contain copyright information.
- Apply a consistent and coherent approach to the in the design features or elements in their websites i.e. in the selection of colour, typography, images, page layout and icons.
- Apply the 'above the fold' consideration i.e. top area of the screen display is the most important and valuable space on a website.
- Ensure that where scrolling is necessary they must ensure that the user can always see the navigational options or a 'return to the top' must be included on the page. While vertical scrolling is allowed, horizontal scrolling is consider a feature of poor design;
- When making colour choices the following conventions must be considered.
  - The application of the basic 'colour wheel' selection principle i.e. contrasting and complimentary colours usually work well together
  - For screen backgrounds white or pastel colours work best. These colours should be combined with dark contrast colours for text e.g. a white background with black text
  - That black backgrounds with white text are notoriously poor for readability and are very rarely used in corporate / business sites.
  - Recognize that colour choices also impact on the type of site being designed. Corporate sites tend to use more conservative colours, like blue, green and maroon.
- When designing the page layout of a website the following conventions must be applied.
  - Ensure visual contrast and balance between graphics and text on a page. Avoid creating confusion between emblems, banner and buttons in the page design.
  - Font use should be restricted to a maximum of three different font types.
  - Use various layout techniques that employ the use of bold text, shading, paragraph breaks, and appropriate placement of images/photographs in relation to text that will create contrast and readability of the page.
  - Text on a webpage should always be left aligned.

## Interview Sequence Outline

Open

- Appreciation
- Ethics – if you don't want to answer a question
  - Consent form

Start

- Not an evaluation
- Research interest
  - How students make choices in their web design
  - Interest in what you have to say – so no right or wrongs
- Impressions of the task / assessment

Choices

- Talk to me about this page... - describe this page to me
- What have inclusion been made
- Can you describe style of page / site?
- Strength / weakness
- Change / leave out / stay the same
- Colours
  - Describe
  - How important – do they matter
  - Do they work
  - Do you notice colour when surfing?

WHY?

Discourse

- Other websites
  - Ones that are visited
  - How many
  - Are they different / same to ideas expressed in classes
  - Style?
- Information on site about family, schooling, activities
- Hobbies, interest – how you got into them

Why this interest?

Wind down

- Clarity
- Any other contributions, issues to cover or to add?

Thanks

- Expression of thanks

## Student Consent Form

Dear XXXX,

Thank you for taking part in my research project "Web Design Discourse and Access". I value your participation, and look forward to further contact during the rest of the year.

Your involvement will include the use of your personal website designed for an individual assessment for the Multimedia Skills 1 subject, an individual interview, and possibly a short group based discussion about the various social aspects that determine who you are.

As this is a qualitative study, your contributions will help shape the study as it develops. I undertake to do the following:

- Make sure that your identity will remain anonymous in the final research findings and report, unless you prefer to retain your identity. We will choose a pseudonym when the research is in its final stages.
- Include you in discussions of the research process and data as we proceed.

UCT's Ethics Committee requires that all research participants give consent when participating in a university-based research project. This is to make sure that you understand the process you are involved in, and that research 'subjects' are not exploited. I'd like you to think about this, and discuss any questions with me, before giving your consent below.

Thank you very much.

Email: colemank@cput.ac.za

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I agree to take part in this research project on "Web Design Discourse and Access". I understand the conditions outlined above.

Signature: ..... Name: ..... Date: .....

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Add comments, if you'd like to:

## Student Profiles

**Felicity** is a 20 year old Black African female student who is originally from Kimberley but currently lives at one of the on-campus residences. She describes her schooling as mixed pointing out that she attended a multiracial technical high school and a 'Coloured' high school. God is seen as a key driver in her life and becoming 'born-again' is described on her website as a life changing experience. Her parents are divorced and she was raised by her grandmother. Her father has a higher education qualification and her family is noted as providing the financial support for her studies. Her interest includes movies and music and she often joins her friends who belong to the Drama Society when they see plays performed at a local theatre in Cape Town. Besides noting that she is doing the multimedia course, no other mention of the course or career field of multimedia or examples of her work is included on her website. Felicity failed the assessment and only scored 43%.

**Julia** is 19 year old Black Coloured female student who lives with her mother and two younger sisters in the Northern Suburbs. Her mother owns her own catering business and Julia ascribes most of her drive to her mother's influence. She took a year off before coming to CPUT with the intention of spending it in London, but her plans did not work out and she spent the time working as a personal assistant to her aunt. She has an interest in design and languages and initially wanted to pursue a career in advertising but is now enjoying the flexibility of multimedia. She would like to stay in the industry maybe owning her own agency one day. On her website she describes herself as "...loving colour, creating and originality". Julia did well in the assessment and received 67%.

**Grant** is a 19 year old White male who lives with his parents and younger brother in the Southern Suburbs. He attended a well known and prestigious all boys school in that area and is the second child to attend university. His older brother is a recent engineering graduate of UCT and is currently working in England. He has a range of interest from sports, music, photography, videography of which he provides substantial examples on his website. He has previous web design experience having designed a site for a private school's matric dance. He is clear about staying in the industry preferably in South Africa. Grant received the highest mark in the class for his personal website and scored 75%.

**Nandi** is a 19 year old Black African female who is originally from the Eastern Cape and now stays on campus at one of the residences. Interestingly she notes that her schooling took place in African township schools. Before completing the multimedia course, she completed a PC technician's course, having also worked as a lab assistant in the PC lab at her high school. She has another sibling at CPUT doing a business related course. Her mother has her own business and her parents are divorced. She expresses an interest in art and gallery sites and likes the design and visual aspects of these sites. Her interest in exploring and learning about other cultures drew her to participate in the Multicultural Leadership Programme hosted on the campus by Student Counselling. Nandi's website was deemed competent in the assessment and she scored 55%.

**Selo** is a 28 year old Black African male from Lesotho who has a previous qualification in Electrical Installation obtained in Lesotho. Both his brothers have qualification in Electrical Engineering. He enjoys watching TV and reading magazines mostly about soccer. He would like to return to Lesotho to start his own multimedia or web design company. His parents live in Maseru – his father owns a business and his mother is a housewife. Selo received a competent allocation for his assessment however only scored 50%.

**Richard** is a 19 year old Black Coloured male who lives with his father and stepmother in the Southern Suburbs. After high school, he spent six months at a prestigious art school but realized that his interest was not in fine art. His preference for new media artistic forms led to the decision to drop out of that course. He worked part-time for the rest of the year before coming to do multimedia. He prefers the multimedia environment and has a continuing interest in graffiti and street art, which he says he tried to capture in his website. He is the eldest so the first at university, although both parents have professional careers. He has various artistic interests from music to visual art. He plays the guitar and most of his friends either share this interest (a friend is part of a rock band) or they are currently studying new media or film studies. Unfortunately his personal website was largely incomplete except for the graphic banner and the inclusion of manipulated photographs and examples of his graffiti. As a result he failed this assessment and received a score of 25%.

## Glossary of Web Design Terminology

### Browser

The software program used to access websites by interpreting hyperlinks and text. The most common browsers are: Internet Explorer, Netscape Navigator and Mozilla Firefox. Web pages often appear differently depending on the brand and version of the browser they are viewed in.

### Footer

Refers to the bottom third of the screen in which duplicate navigation links as well as the web page author are found. Copyright information and the date the page was last updated may also be listed.

### GUI

An acronym for Graphical User Interface. It is used to describe a computer systems interaction metaphors, (icons, menus) images and concepts that are used to convey function and meaning to the computer screen. A common example is Microsoft Windows desktop.

### Home Page

The main page of a web site, the first page that appears when opening the website. Typically, the home page serves as a table of contents, with all the section links to other pages in the site.

### Header / Visual or Graphic banner

Refers to the top third of the screen in which the navigation bar could be found as well as graphic logos and images. The website's URL and page title should also appear here.

### HTML

Abbreviation for Hypertext Markup Language, a cross platform programming language which is used for creating websites, including text, images, sounds and animation.

### Hyperlink/Hypertext

A hyperlink is graphical or text-based button which hyperlinks (takes you to) to other pages with the current website or to external websites.

### Mouseover/Rollover

A popular special effect for web graphics that enables the link or graphic image to change colour or reveal a hyperlink when the cursor is over it.

### Navigation Bar

A set of graphical or text-based buttons, typically in a row or column which contains hyperlinks to other pages within the current website or to external websites.

### Online

When connected to the Internet, one is said to be 'online'. Online advertising is done exclusively via email or on the web.

### Page Title

A page title is the text identifying which page of the website the user is currently on. e.g.: Homepage; About Me; CV etc. The page title is typically positioned just under the header and is usually characterized by bold or large font formatting.

### Screenshots

A screenshot is like a snapshot of the computer screen and whatever is on it at the time. This snapshot can then be saved as an image file.

### Splash Cover

An introductory screen, found ahead of the homepage of a website. Often a splash cover will be animated.

### Thumbnail

A small version of an image that allows the web designer to display multiple images on a screen simultaneously without compromising the download time of the web page. Normally users can click on the image to enlarge the view.

### URL

A Uniform Resource Locator is the formal term for web addresses on the Internet, e.g. [www.cput.ac.za](http://www.cput.ac.za).

### Welcome Blurb

A short introduction or welcome message written by the authors of the website, that typically appears on the Home Page.