

**The spaces in-between:
An appreciative inquiry into cross-boundary
collaborative design for Social Innovations**

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growing leaders in emergent markets



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ABSTRACT

In order to support Social Innovation, Social Designers advocate for the use of collaborative design methodologies, inclusive design processes, which produce innovative design outcomes and inclusive societies. While there is a large amount of literature on this topic from a European and US perspective, there is little understanding regarding the effect large social disparity between stakeholders has on these types of engagements.

The researcher describes this as *cross-boundary collaborative design for social innovation*, where “boundary” refers to social and collective identity such as, gender, race, class, etc., which is a reality in most South African collaborative design engagements and a gap in the literature. Thus, this thesis explores this gap by asking the research question, *what practices, mindsets and interpersonal interactions help to support effective cross-boundary collaborative design for Social Innovation?*

In order to answer this question, the researcher conducted 32 interviews followed by a single focus group with disparate stakeholders engaged in these types of initiatives. Using a Constructivist Grounded Theory approach and applying the lens of Appreciative Inquiry to her interview questions, she recorded narratives that focused on moments of effectiveness within these cross-boundary collaborative design engagements.

What emerged from the data was a strong link between the quality of relationships between the disparate stakeholders and the effectiveness of the collaborative design process – what she described as “generative” relationships (connections built on trust, vulnerability, friendship and respect) that blurred the social boundaries between the participants and helped them move across the social divides with ease. This in turn increased the generative nature of the collaborative design process.

Furthermore, these generative relationships were often established outside of the design process, in a preliminary phase (pre-project) before a design engagement began because this phase allowed the stakeholders to focus solely on building relationships, instead of generating design solutions.

However, the importance of generative relationships does not feature strongly in the current collaborative design literature. Instead, it focuses mainly on developing communication methods as a way to support boundary crossing and views relationship building as a secondary by-product of a good communication method.

This thesis, however, concludes that in order to support effective cross-boundary collaborative design engagements, this process should be flipped and attention be given to first building generative relationships that can then help to support the effectiveness of the cross-boundary communication methods and ultimately improve the over all cross-boundary collaborative design process.

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1. RESEARCH TOPIC

1.1 Introduction

This thesis follows the researcher's journey, as she attempts to understand her place as a South African designer and activist in the Social Design field. This process has left her feeling both inspired and paralysed, as she uncovers the tensions and paradoxes that present themselves when working to support deep systemic change and Social Innovation in South Africa. Nonetheless, she hopes that this thesis can help to sharpen these contrasts and offer other designers food for thought as they navigate the social, political and cultural terrain in an attempt to use design to support Social Innovation.

More specifically, the central focus of this thesis explores how collaborative design processes, heralded for supporting Social Innovation in both their ends and means, can be adapted to suit the South African context. This is a discussion prompted by the fast-growing trend that sees these methodologies move away from their roots in the global North and into new contexts situated in the global South. This challenge presents itself as a gap in the literature, given that there is limited academic understanding regarding how best to appropriate these processes to suit these new contexts and cultures (Blomberg & Karasti, 2013; Chavan, 2005; Halabi, Zimmermann, & Courant, 2013; Irani, Vertesi, Dourish, Philip, & Grinter, 2010; Kapuire, Winschiers-Theophilus, & Blake, 2015; Peters, Winschiers-Theophilus, Awori, et al., 2014; Puri, Byrne, Nhampossa, & Quraishi, 2004; Robertson & Simonsen, 2012; Van Boeijen & Stappers, 2011; Winschiers-Theophilus, Bidwell, Blake, Kapuire, & Rehm, 2010).

The researcher thus offers her thesis as a way to address this gap by exploring how traditional collaborative methodologies, born out of relatively homogenous communities, can be successfully adapted to suit the South African context. This context reflects the legacy of colonialism and apartheid, which has institutionalised inequality and discrimination across the social divides, resulting in unrest, distrust and animosity between its citizens. She believes that for these collaborative processes to be successful, they must first acknowledge this power imbalance and then support

stakeholders as they attempt to cross the social divides in order to collaborate in meaningful and equal ways. This is often a difficult process, but one that helps to ensure deep participation and truly innovative outcomes.

In order to answer this question, the researcher engaged 32 interviewees in a conversation around the moments and stories when they were able to collaborate effectively with other participants from socially disparate backgrounds to that of their own within collaborative design initiatives for Social Innovation. She hoped that by focusing on these moments of success, the critical elements that helped to support effective boundary-crossing would emerge from the data and reveal themselves to her. This process, when consolidated, could help to deepen the academic literature on the topic and practical application of the methodologies, ultimately assisting in the strengthening of the Social Design community both locally and abroad.

1.2 Research context

We find ourselves in a world that is experiencing complex social and environmental challenges ranging from growing socio-economic inequality and unrest, to resource scarcity and environmental degradation (Irwin, 2012; Margolin, 2007; Wahl & Baxter, 2008). It has become clear that old models of change no longer work and new innovations, experimentations and initiatives are needed to fill this gap (Emilson, Seravalli, & Hillgren, 2011; Irwin, 2012; Murray, Caulier-Grice, & Mulgan, 2010). In response to this crisis, a growing movement of people are working towards what they define as Social Innovation.

“Social innovation is an initiative, product or process or program that profoundly changes the basic routines, resource and authority flows or beliefs of any social system.” (Westley, 2008, p. 1).

“Our interest is in innovations that are social both in their ends and in their means. Specifically, we define social innovations as new ideas (products, services and models) that simultaneously meet social needs and create new social relationships or collaborations. In other words, they are innovations that are both good for society and enhance society’s capacity to act.” (Open Knowledge Forum as cited in Murray et al., 2010, p. 3).

Social Innovation is not bound to any one discipline or sphere. Instead, it is an overarching goal and movement that aims to affect social change on a systemic level. It does so through the development of ideas, products, processes and services that alter behaviours, shift beliefs systems and embedded power dynamics in an attempt to strengthen and cultivate a culture of resilience (Emilson, 2014; Emilson et al., 2011; Murray et al., 2010; Westley, 2008)

In the design field, a similar movement broadly defined as Social Design, also commonly known as Design for Social Innovation, Design for Social Impact, Design for Social Development, Socially Responsive Design and Design for the Bottom of the Pyramid (BoP) runs in parallel to that of Social Innovation (Emilson, 2014; Janzer & Weinstein, 2014; Lasky, 2013; Veiga & Almendra, 2014). The movement has developed out of a groundswell of professional designers moving away from the more traditional market-driven commercial sectors, in order to explore ways design can address complex social challenges and in essence contribute to Social Innovation (Emilson, 2014; Janzer & Weinstein, 2014; Lasky, 2013; Margolin & Margolin, 2002; Mazé, 2014; Veiga & Almendra, 2014; Zaretsky, 2011).

The meaning and definition of Social Design and its role in effecting Social Innovation is broadly defined within the various design fields. If we are to distil its essence, it can be described as the use of design thinking, creativity, design methodologies and tools by professional and amateur designers to create products, policies, processes, systems, services, technologies, organisations and institutions that foster change on a systemic level and build communities of resilience, democracy and sustainability. It also often focuses on the margins of society with the aim to create inclusive spaces and increase general standards of living for all (Emilson, 2014; Fuad-Luke, 2009; Margolin & Margolin, 2002; McMahon & Bhamra, 2012; Thorpe & Gamman, 2011; Veiga & Almendra, 2014).

Many design scholars place the Social Design movement as far back as the 19th century, with figureheads such as William Morris, a socialist artist and activist who founded the British Arts and Crafts movement, and Walter Gropius, the director of

the German Bauhaus School. Both these men advocated for the use of design and industrialisation to improve social cohesion and the quality of life for the general public (Emilson, 2014; Fuad-Luke, 2009; Melles, de Vere, & Misic, 2011; Mulgan, 2014; Thorpe & Gamman, 2011).

Nevertheless, it has only been during the last two decades that Social Design has gained momentum in Europe and North America, prompting the emergence of new Social Design movements, methodologies, toolkits and institutions. Some of the more popular movements are Participatory Design, Co-design, Agonistic Design, Human-centred design, User-centred design, Design Thinking, Universal Design, Inclusive Design, Critical Design, Human-computer Interaction for Development (HCI4D), Transformative Design, Humanitarian Design, Slow Design, Design Activism, Sustainable design, Meta-design and Biomimicry (Emilson, 2014; Emilson et al., 2011; Fuad-Luke, 2009; Hillgren, Seravalli, & Emilson, 2011; Sanders & Stappers, 2008; Szebeko & Tan, 2010; Veiga & Almendra, 2014).

This fast growth has had an impact beyond the design sector, with the adoption of design methodologies such as Design Thinking, Human-centred Design, Participatory Design and Co-design by the private and public sector in order to support the development of socially innovative products, services and systems (Hillgren et al., 2011; Janzer & Weinstein, 2014; Lasky, 2013). This resulted in the rise of design consultants and agencies that offer services to support this development, some of the better known being IDEO (USA)¹, Frog Design (GER)², Project H (USA)³, Nesta (UK)⁴, The Ah-HA company (SA)⁵. There has also been an effort by some governments and universities to invest in Social Design infrastructure in the form of design labs, research units and short courses. Their mandate has been to deepen and strengthen the academic understanding and practice of Social Design for Social Innovation (Hillgren et al., 2011; Lasky, 2013; Thorpe & Gamman, 2011). Some of these labs and

¹ www.ideo.com

² www.frogdesign.com

³ www.projecthdesign.org

⁴ www.nesta.org.uk

⁵ www.theahhacompany.co.za

courses include MEDIA Malmo Living (SE)⁶, Cape Craft and Design Institute (SA)⁷, DESIS Network (Global)⁸, RLabs (SA)⁹, Design Council (UK)¹⁰, D-school (US, GER, SA)¹¹. Lastly, there has also been growth in Social Design and Social Innovation competitions, festivals, exhibitions, books and toolkits, all of which are aimed at encouraging the public to engage in the field and support the Social Design and Social Innovation movements (Lasky, 2013). Some of these include the INDEX awards (DEN)¹², The Better Living Challenge (SA)¹³, IDEO Human-centred Design Toolkit (US)¹⁴, Open Design Festival Cape Town (SA)¹⁵, World Design Capital (global)¹⁶.

Despite this rapid growth and adoption, the Social Design field is relatively young and it was only recently that large amounts of data could be collected and assessed in order to reveal the true impact Social Design projects have had over the past two decades. This process has uncovered many uncomfortable truths that question the level of impact Social Designers are claiming to have around the globe (Fuad-Luke, 2009; Melles et al., 2011; Mulgan, 2014; Nussbaum, 2010; Tunstall, 2013). For example, from an academic perspective, these challenges include a lack of a shared vocabulary, limited academic literature, an absence of an overarching framework of best practices and ethics that held social designers accountable for their actions in the field (Lasky, 2013; Margolin & Margolin, 2002; Veiga & Almendra, 2014). As a result, one can see a fast-growing trend of short-term costly western design consultants implementing culturally problematic superficial design solutions in developing countries with little local participation or consultation, no long-term maintenance or impact assessments. This has resulted in a waste of already limited resources, a litany of broken ideas, failed experiments and a culture of dependency diminishing local

⁶ www.medeamah.se/malmo-living-labs

⁷ www.ccdi.org.za

⁸ www.desisnetwork.org

⁹ www.rlabs.org

¹⁰ www.designcouncil.org.uk

¹¹ www.dschool.uct.ac.za

¹² www.designtoimprovelife.dk

¹³ www.betterlivingchallenge.co.za

¹⁴ www.designkit.org

¹⁵ www.opendesignct.com

¹⁶ www.wdo.org/programmes/wdc

agency and knowledge (Fuad-Luke, 2009; Melles et al., 2011; Mulgan, 2014; Nussaum, 2010; Puri et al., 2004; Tunstall, 2013).

These challenges are best illustrated by once-celebrated Social Design products, such as the *Playpump*, *Lifestraw*, *Whirlpool's World Washer* and the *One Laptop per Child* project, that claimed to contribute to Social Innovation but upon investigation have failed to produce any real or sustainable impact (Bardzell, 2010; Janzer & Weinstein, 2014; Melles et al., 2011; Warschauer & Ames, 2010; Zenios, Denend, & Sheen, 2012). Not only have these projects failed to work, but in many cases have resulted in harmful outcomes and unethical practices that only compound the social issue further (Brocklehurst & Harvey, 2007; Zenios et al., 2012). All of this has resulted in a calling for deeper academic understanding and critical reflection with regard to the practices, tools and methods used by social designers when working in the field (Fuad-Luke, 2009; Mulgan, 2014; Nussaum, 2010; Tunstall, 2013).

1.3 Research Question and contribution

The author of this paper offers her thesis as a way to address some of these challenges and contribute to the Social Design community both locally and abroad. This move has been motivated by five years of practical experience working as a social designer in South Africa where she experienced many of these challenges first hand and recognised the lack of academic literature from a Southern African perspective.

Since she cannot address all of these challenges in this thesis, the researcher has chosen to focus on contributing to the field of collaborative design for social innovation, with a focus on appropriating these methodologies to suit the South African social and political context. This gap presents itself in the literature, as these collaborative design methodologies have expanded rapidly away from their European and American roots on the African, Asian and South American continents. This has highlighted the need for deeper academic understanding regarding the usability and impact these methods have in foreign contexts, where the social, cultural, political

and economic landscapes look very different to that of their countries of origin in the global North (Kapuire et al., 2015; Messeter, Claassen, & Finnan, 2012; Nieuwma, 2004; Peters, Winschiers-Theophilus, Awori, et al., 2014; Puri et al., 2004; Robertson & Simonsen, 2012). The researcher is all-too-familiar with this matter, as she has been working since 2010 with collaborative design methodologies when engaging in Social Design projects for Social Innovation.

1.3.1 Collaborative design for Social Innovation

The researcher defines collaborative design as a loosely associated group of design movements and methodologies that place value on involving “users” of a design outcome as participants in the design process. This approach was prompted by the recognition that while designers may hold expert technical knowledge, other stakeholders or “users” have experiential knowledge regarding the social issues under investigation, and which when combined can help to produce relevant, sustainable and socially innovative design outcomes (Bannon & Pelle, 2013; Koskinen, Zimmerman, Binder, Redström, & Wensveen, 2011; Sanders & Stappers, 2014; Vines, Clarke, Wright, McCarthy, & Olivier, 2013). These collaborative design processes also help to support Social Innovation in both their ends and means, as they not only produce innovative outcomes but help to connect different stakeholders together and establish robust networks of capacitated citizens resilient in the face of growing social complexity (Björgvinsson, Ehn, & Hillgren, 2012b; Blomberg & Karasti, 2013; Emilson, 2014; Greenbaum & Loi, 2012; Hussain, Sanders, & Steinert, 2012; Robertson & Simonsen, 2012; Robertson & Wagner, 2013; Szebeko & Tan, 2010; Vines et al., 2013). Significant collaborative design movements include Participatory Design, Co-design, Agonistic Design, User-centred design, Human-centred Design and Design Thinking, which have predominately emerged out of the European and American technology sector in the 1970s, 80s and 90s (Björgvinsson, Ehn, & Hillgren, 2010; Greenbaum & Loi, 2012; Janzer & Weinstein, 2014; Koskinen et al., 2011; Puri et al., 2004; Sanders & Stappers, 2008). However, currently they help to support Social Innovation in both the public and private sector globally.

1.3.2 Levels of participation

While all of these collaborative methodologies advocate for the integration of users into the design process, the level of involvement and power these stakeholders are given within this process varies (Puri et al., 2004; Sanders & Stappers, 2008; Steen, 2013; Vines et al., 2013).

For example, one of the earliest collaborative design movements, Cooperative Design, now termed Participatory Design, can be described as a political egalitarian design movement started by the workers' union in the Scandinavian technology sector during the 1970s. This movement fought for the inclusion and participation of workers in the design of new technology, because they believed all stakeholders affected by a design outcome had a right to participate in its development (Koskinen et al., 2011; Puri et al., 2004; Robertson & Simonsen, 2012; Steen, 2013; Vines et al., 2013). At the core of this methodology is the commitment to providing all stakeholders with an equal and shared sense of power during the design process, where users are seen as equal members of the design team and collaborate with designers from start to finish, instead of playing a supporting role and only being asked to collaborate with designers when their input is needed. This methodology has been described as both innovative and “emancipatory”, as it centres on mutual exchange where designers learn about the users' world and users learn about design. This process helps to produce innovative and relevant outcomes, while strengthening the users' capacity to act long after the initiative is over (Björgvinsson et al., 2012b; Emilson, 2014; Hussain et al., 2012; Robertson & Simonsen, 2012; Robertson & Wagner, 2013; Vines et al., 2013).

In recent years, Participatory Design has moved out of the workspace and into the public domain, where it has been framed as an interventionist process focused on strengthening democracy through the inclusion and amplification of marginalised “voices” in society, with the idea that design solutions shaped by marginalised users can help to shift the balance of power in reality (Björgvinsson et al., 2012b; Dantec & DiSalvo, 2013; Hillgren et al., 2011; Hussain et al., 2012; Robertson & Wagner, 2013).

This new wave of Participatory Design has been termed Agonistic Design, inspired by Agonistic Democracy, a political theory that supports and encourages constructive political conflict and debate as a mechanism for maintaining pluralistic public spaces (Björgvinsson et al., 2012b; Disalvo, 2010; Hillgren et al., 2011). The core principles of the Participatory Design movement also spread to North America, where it was adapted and developed by several seminal design scholars and became known as Co-design (Mattelmäki, 2008; Sanders & Stappers, 2008; Steen, 2008; Szebeko & Tan, 2010).

The Participatory Design movement went on to inspire and influence other collaborative design methodologies such as Design Thinking, User-centre Design, Human centred Design and Transformative Design (Fuad-Luke, 2009; Mattelmäki, 2008; Sanders & Stappers, 2008; Steen, 2008; Szebeko & Tan, 2010). While these movements follow similar core principles to those of Participatory Design, in contrast to the Scandinavian tradition, they often place less focus on the “emancipatory” element of the participatory practice. Instead, they view user participation in a more customer-centred approach, which can be characterised by the reproduction and translation of user knowledge in order for designers to develop and “fine tune” design artefacts to better suit their users’ needs (Brereton, Roe, & Hong, 2012; Puri et al., 2004; Steen, 2011; Vines et al., 2013). This resulted in a limited focus on equal participation during the collaborative design process, and instead users play a supporting role by providing designers with contextual information and testing out prototypes at different stages of the design process (Melles et al., 2011; Puri et al., 2004). In this way, designers often maintain overall power in the design process and as a result the tools and methods that have developed out of these movements are often more consultative when compared to other approaches (Bardzell, 2010; Brandt, Messeter, & Binder, 2008; Melles et al., 2011). These include activities such as ethnography, qualitative interviews, focus groups, collaborative prototyping sessions and user testing (Bannon & Pelle, 2013; Sanders & Stappers, 2014; Steen, 2011).

However, the researcher highlights the point that when reading the different literature regarding user participation within the Social Design field it was often hard

to draw clear distinctions between these different collaborative design movements and methodologies, since they have inspired and integrated each other's practices into their work. Furthermore, the terms User-centred Design, Human-centred Design, Design Thinking, Co-design and Participatory Design were sometimes used as overarching umbrella terms¹⁷, to unify all the different collaborative designed movements, and at other times they were used in reference to distinctive independent movements and methodologies. The researcher believes that this lack of clarity stems from the descriptive nature of the terms, which makes it hard to distinguish between the description of methods and the titles of a movement. Regardless of this ambiguity there has been a general shift over time towards viewing the "user" and other stakeholders, as equal participants and co-creators in the most collaborative design movements (Fuad-Luke, 2009).

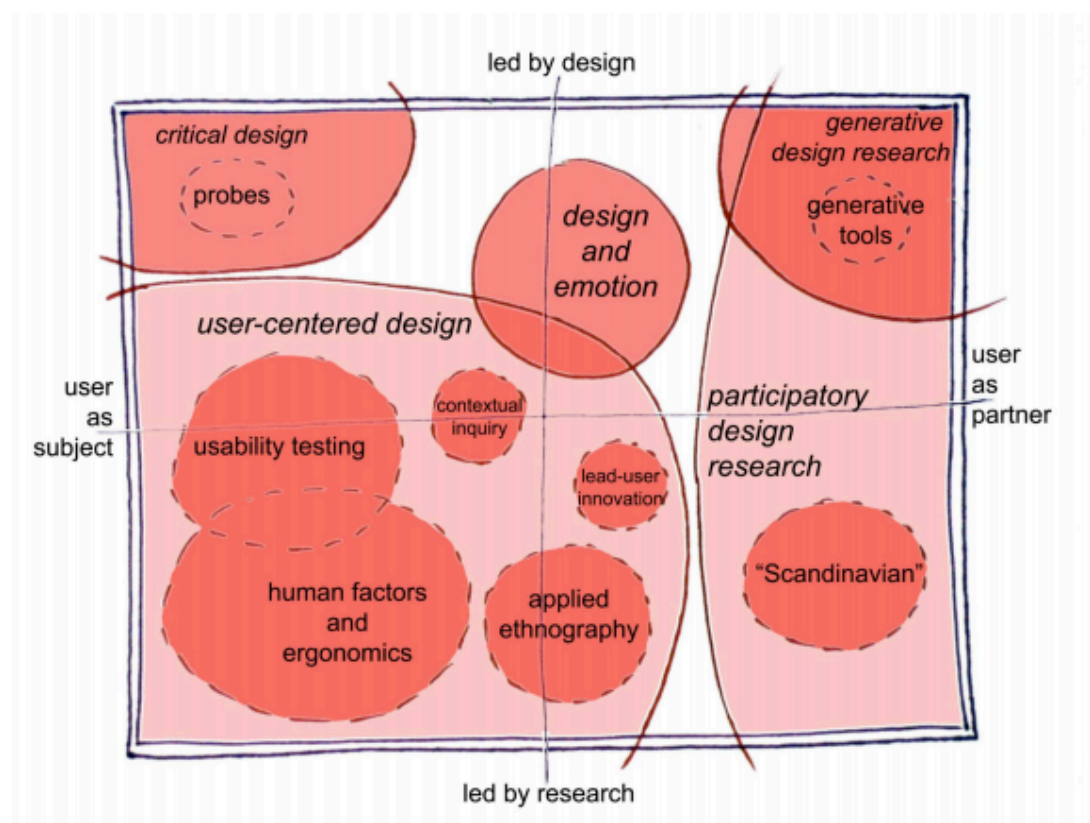


Figure 1. The current landscape of human-centred design research as practiced in the design and development of products and services (Sanders & Stappers, 2008, p. 6)

¹⁷ For example, in figure 1. the authors have used the term Human-centered Design, as an overarching term that encompasses different collaborative design movements. However, Human-centered Design has also been described as a distinctive design movement, with its own methodologies and characteristics (+Acumen, 2013)

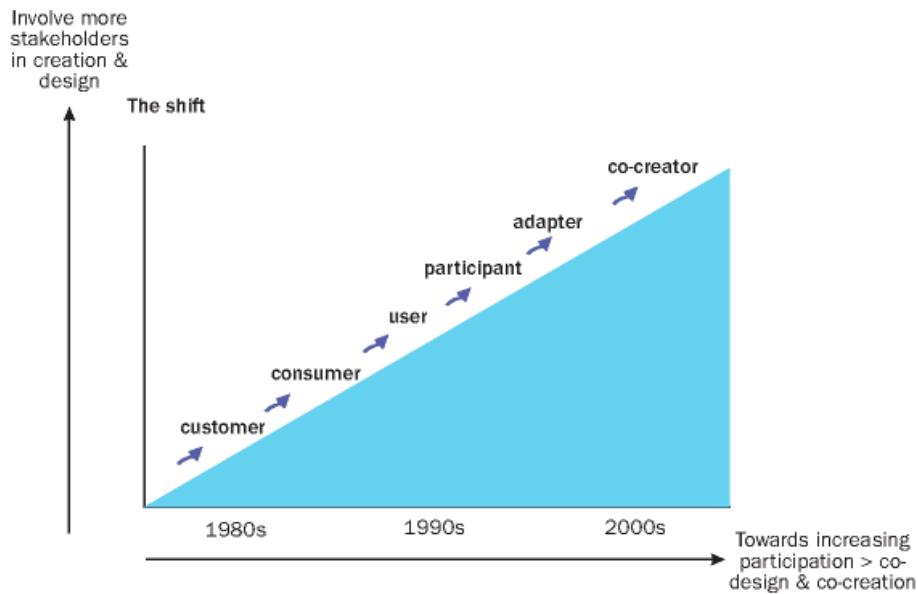


Figure 2. The shift from customers to co-creators (Fuad-Luke, 2009, p. 143)

For the sake of clarity in this thesis when the researcher refers to collaborative design methodologies and later to cross-boundary collaborative design processes for Social Innovation, she is referring to the more “emancipatory” collaborative methodologies inspired by the Participatory Design movement, since these egalitarian processes resonate with her as a designer and social activist. They give voice to those marginalised by society and support Social Innovation in both their ends and means (Björgvinsson et al., 2012b; Dantec & DiSalvo, 2013; Hillgren et al., 2011; Hussain et al., 2012; Robertson & Wagner, 2013).

1.3.3 Cross-boundary collaborative design for Social Innovation

These egalitarian collaborative design processes are often easier theorised in academic literature than practiced in reality, something the researcher quickly realised when she began working with traditional Participatory Design and Co-design methodologies in a South African context. She observed that they often failed to produce equal and meaningful collaborative engagements, and instead resulted in user tokenisation and shallow interactions between the stakeholders. This produced superficial design outcomes and engendered feelings of frustration and animosity from users towards designers, as they felt exploited and disrespected by these hollow

processes. This is a challenge that not only presented itself in the South African context, but also echoed a growing concern from the Social Design community that the term “participation” had become meaningless, poorly articulated and theorised (Bossen, Dindler, & Iversen, 2012; Vines et al., 2012, 2013).

In the case of community-based collaborative Social Design projects, these challenges were often exaggerated by external designers overpromising and under delivering on design outcomes. This would result in them ending a collaborative project and leaving a community when their funding had run out, or when they had achieved their own personal goals, and not when the design outcome had been implemented (Kapuire et al., 2015; Mulgan, 2014; Nussaum, 2010; Puri et al., 2004; Tunstall, 2013). The community’s hope for a better life was crushed and a culture of designer dependency was created. Sadly, these types of collaborative design engagements appeared to be so prevalent that the researcher disengaged from participating in any Social Design projects claiming to be collaborative, for fear of inflicting more harm than good. Instead, she critically reflected upon her role as a social designer and the lack of ethics and accountability within the Social Design field, which led her to this master’s thesis.

One of the biggest challenges the researcher felt contributed to the lack of depth and quality of participation in the South African context was the social disparity and power inequality between different stakeholders. A social divide constructed by the legacy of colonialism and apartheid in combination with the diversity of culture in the country meant that when disparate stakeholders came together to collaborate, they rarely shared a common base of understanding. This made it hard to work together, as cultural differences had to be constantly negotiated, a process made harder by the lack of trust between stakeholders from different racial and class lines (Hofmeyr, J., Govender, 2015).

The understanding of a country like South Africa, divided by an oppressive past and the subsequent lack of social and economic reform and reconciliation, is a topic that the researcher feels is missing from traditional Participatory Design and collaborative

design literature and practice, because these methodologies had largely developed out of homogenous communities in Scandinavia and the US (Bannon & Pelle, 2013; Blomberg & Karasti, 2013; Brereton et al., 2012). Other scholars have articulated similar concerns when working in contexts outside of the global North, where they have expressed that the notion of power and hierarchy in Participatory Design are somewhat overly simplified and incomplete in relation to different political and social contexts (Akama, Stuedahl, & Van Zyl, 2015; Blomberg & Karasti, 2013; Puri et al., 2004; Van Boeijen & Stappers, 2011; Winschiers-Theophilus, Chivuno-kuria, Kapuire, Bidwell, & Blake, 2010).

The researcher feels that there are no adequate terms in the literature that best describe the effect social divides have on the collaborative design process, except for the field of study called Cross-cultural Participatory Design. This is a small academic field emerging out of Human Computing Interaction (HCI) and Information Systems (IS), which looks at the way culture affects Participatory Design methodologies and projects outside of the global North (Rodil, Winschiers-Theophilus, & Jensen, 2012; Vainio, Walsh, & Varsaluoma, 2015; Winschiers-Theophilus, 2009; Winschiers-Theophilus, Bidwell, et al., 2010). However, she feels that the term “cross-cultural” does not suit the South African context entirely, since the social divides encompass more than culture and extend to issues of class, race, gender, ethnicity, education and religion. She has chosen to use the term “cross-boundary” to define these types of collaborative design engagements, making reference to previous research (DiMaggio, 1992; Epstein, 1992; Gans, 1992; Lamont & Fournier, 1992; Lamont & Molnár, 2002) where the word “boundary” describes the study of relational processes, the way people position themselves, or are positioned in society.

(a) social and collective identity; (b) class, ethnic/racial, and gender/sex inequality; (c) professions, knowledge, and science; and (d) communities, national identities, and spatial boundaries. (Lamont & Molnár, 2002, p. 167)

Furthermore these scholars highlight two types of boundaries, those of symbolic and social boundaries (DiMaggio, 1992; Gans, 1992; Lamont & Fournier, 1992; Lamont & Molnár, 2002). Symbolic boundaries are created by social actors who assign meaning to different objects, people and practices, which leads to the development of social

grouping and membership. Social boundaries are social distinctions and differences created by unequal access to resources and social opportunities. They too establish common behavioural patterns of social association (DiMaggio, 1992; Gans, 1992; Lamont & Molnár, 2002). With this in mind, the researcher feels that the term “cross-boundary” best describes the coming together of South African stakeholders from different symbolic and social boundaries.

1.3.4 Research question

This thesis will explore the topic of cross-boundary collaborative design for Social Innovation within the South African context by asking the following research question:

What practices, mindsets and interpersonal interactions help to support effective cross-boundary collaborative design for Social Innovation?

It is hoped the answer will not only deepen and address a gap in the academic literature, but also help to appropriate collaborative design methodologies to suit the South African context. The researcher believes this strengthen the Social Design and Social Innovation communities both locally and abroad.

2. LITERATURE REVIEW

2.1 Introduction

The following section will explore current Social Design literature relating to the research topic, that of cross-boundary collaborative design for Social Innovation, in order to ground the research question within the broader academic conversation, establish the gaps in the literature left to be explored and highlight the ways this thesis can contribute to this field of research.

It is important to bear in mind that there is no single established Social Design field that speaks directly to the term or concept of “cross-boundary” collaborative design for Social Innovation, since this is a phrase used by the researcher to best describe a phenomenon she has not seen named in the literature.

However, scholars in various collaborative design fields have published papers relating to topics that speak to this research question. One of the most notable is Cross-cultural Participatory Design for Social Innovation, a field of research that has emerged from Human-Computer Interaction HCI and Information Systems IS in which one can find literature that explores how cultural boundaries between western designers and local stakeholders effect participatory design projects in contexts outside Europe and the US (Chavan, 2005; Rodil et al., 2012; Vainio et al., 2015; Winschiers-Theophilus, 2009; Winschiers-Theophilus, Bidwell, et al., 2010). This literature is supported by a handful of Human-centred Design, Co-design and Agonistic Design researchers exploring similar themes and topics around the globe (Björgvinsson et al., 2012b; Hussain & Sanders, 2012; IDEO, 2015; Van Boeijen & Stappers, 2011). Most of the current design literature exploring the effects of social boundaries on collaborative design initiatives focuses on the *cultural* differences of participants in the process, with a further focus on understanding and improving cross-cultural communication methods as a way to support effective engagements (Brereton et al., 2012; Hussain & Sanders, 2012; Lee & Lee, 2007; Rodil et al., 2012; Winschiers-Theophilus, 2009). While this research is important, the effect other social

boundaries (e.g. race, class, gender, religion, nationality etc.) can have on a collaborative design process has been largely ignored, presenting the researcher with a gap in the literature for her research question and findings to fill.

2.2 Collaborative Design methodologies move South

The idea that Western technology and design can be used to address complex social issues in “developing” countries began in the 1960s and is still a fast-growing design movement. This trend has been largely influenced by the common belief that social issues and human rights in these contexts are more severe and pressing than those in the West, resulting in social designers wanting to work abroad in order to address these challenges through design (Nieusma, 2004; Van Boeijen & Stappers, 2011; Veiga & Almendra, 2014). However, in reality it is very challenging for foreign designers to work in contexts with which they are unfamiliar and around issues that do not directly affect them. One of the biggest challenges they face is the impact culture has on the usability of Western design methodologies, technologies and artifacts in these new contexts, since transferring design and technology across culture is a complex issue and one that requires deep contextual understanding and adaptation if it is to be successful (Hussain & Sanders, 2012; Kapuire et al., 2015; Lucena, Schneider, & Leydens, 2010; Messeter et al., 2012; Nieusma, 2004; Puri et al., 2004; Rodil et al., 2012; Winschiers, 2006).

One of the ways Western social designers have been addressing this challenge is through participatory and collaborative design methodologies. These methods help to incorporate local stakeholders into the design process, which ensures culturally relevant design ideas and contributes to the communities’ sense of ownership improving the sustainability of the design outcome (Blomberg & Karasti, 2013; Halabi et al., 2013; Hussain et al., 2012; Irani et al., 2010; Winschiers-Theophilus, Chivunokuria, et al., 2010; Winschiers-Theophilus, Zaman, & Yeo, 2015). However, many social designers use traditional collaborative methodologies developed in Scandinavia and the US in foreign contexts without adapting them to the new socio-cultural landscape. These methods are rarely successful in achieving effective collaborative

design engagements with local stakeholders if they are not adapted to suit the new context, since these approaches bias Western perspectives of participation and democracy which often conflict with local forms of knowledge and practice (Blomberg & Karasti, 2013; Chavan, 2005; Halabi et al., 2013; Irani et al., 2010; Kapuire et al., 2015; Peters, Winschiers-Theophilus, Awori, et al., 2014; Robertson & Simonsen, 2012; Van Boeijen & Stappers, 2011; Winschiers-Theophilus, Bidwell, et al., 2010).

If these collaborative methodologies are not adapted they have the potential to enforce a western perspective on to other cultures, which can result in the erosion of indigenous knowledge and reinforce oppressive paradigms (Kapuire et al., 2015; Tunstall, 2013; Vainio et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). In recent years, there has been a growing debate in the Social Design community regarding the impact, intentions and methods of Western social designers working in the global South. There is a concern that current design practices are perpetuating colonial approaches by forcing communities to assimilate and adapt to western ways of working (Akama et al., 2015; Bardzell, 2010; Brereton, Roe, Schroeter, & Lee Hong, 2015; Muller & Druin, 2001; Nussaum, 2010; Tunstall, 2013). This trend has been fuelled by the problematic “saviour complex” many Western designers hold, whereby they desire to “save” people within these contexts without any contextual understanding and recognition of local agency and innovation (Janzer & Weinstein, 2014; Lucena et al., 2010; Nussaum, 2010; Tunstall, 2013; van Stam, 2013).

This challenge has left many Social Designers using collaborative design methods outside of the global North interested in finding ways to better understand culture, in order to adapt and appropriate traditional methodologies to suit new contexts and retain their effectiveness (Blomberg & Karasti, 2013; Brereton, Roe, Schroeter, & Lee Hong, 2014; Chavan, 2005; Halabi et al., 2013; Peters, Winschiers-Theophilus, Awori, et al., 2014; Robertson & Simonsen, 2012). However, while this is a fast-growing field of interest in the Social Design community, there are still few academic papers that provide adequate theory on the topic (Blomberg & Karasti, 2013; Irani et al., 2010; Puri et al., 2004).

2.3 Cultural models and ethnography

In order to understand culture and adapt collaborative design methodologies, Social Designers have turned to the social sciences and employed different methods and models developed by sociologists and anthropologists. Two of the most significant methodologies used by social designers are those of cultural models and ethnography (Blomberg & Karasti, 2013; Brereton et al., 2014; Oyugi, Dunckley, & Smith, 2008; Winschiers-Theophilus, 2009; Winschiers-Theophilus, Bidwell, et al., 2010).

2.3.1 Cultural models

In the late 1990s, developers and designers in the field of Human Computing Interaction (HCI) and Information Systems (IS), turned to cultural models as a way to understand different contexts, cultures and their effects on technology (Oyugi et al., 2008). Among the most cited cultural theories were those of Hofstede and Hall (Kapuire et al., 2015; Van Boeijen, 2013; Van Boeijen & Stappers, 2011; Winschiers-Theophilus, 2009). Unlike ethnography, which attempts to understand culture through a localised qualitative and immersive perspective (Blomberg & Karasti, 2013; Brereton et al., 2014; Crabtree, 1998; Dourish, 2014), cultural models tries to define and theorise the overarching structures and values of a whole society (Hofstede & Hofstede, 2005; Oyugi et al., 2008; Van Boeijen, 2013; Van Boeijen & Stappers, 2011).

For example, Hofstede writes about five different cultural dimensions that set different societies apart, which many design scholars and practitioners have referenced when writing about cross-cultural collaborative design and integrated into their practice when working in different contexts and with users from different cultures. These dimensions include power-distance, collectivist vs individualist, femininity vs masculinity, uncertainty avoidance and long-term vs short-term orientated societies, all of which has an effect on the way individual users interact with designers, participate in a collaborative design process, engage with each other and a design artefact (Hofstede & Hofstede, 2005; Oyugi et al., 2008; Winschiers-Theophilus, 2009). Design researchers and practitioners have also drawn upon

Edward Hall's theory of high-context vs low-context cultures. High-context cultures communicate through nonverbal, indirect and context specific ways in long-term close social relationships, whereas low-context societies are more individualistic with shorter interpersonal relationships and explicit and direct communication (Hall, De Jong, & Steehouder, 2004; Yang, Wen, Adamic, Ackerman, & Lin, 2011).

A good example of how these types of cultural dimensions can affect a collaborative process can be seen in a Participatory Design project in Sweden where women from two non-profit organisations collaborated on a design project. The first group of women comprised first and second-generation Afghan immigrants from a high-context collectivist culture, who found their voice and strength when working together. The second group were of Swedish descent, a low-context individualistic culture, and felt most comfortable working in individual ways. Challenges emerged when the Swedish women proposed that the group work in pairs with one woman from each organisation, while the Afghan women wished to work as a group. This cultural clash slowed the Participatory Design process to the point that the partnership dissolved, as no one was willing to compromise and no common ground was found (Björgvinsson et al., 2012b).

Finally, designers have also drawn upon Politeness Theory (Brown & Levinson, 1987) which discusses the importance of maintaining "face", which can be describe as "the public self-image that every member of a society wants to claim for himself" (Brown & Levinson, 1987, p. 311). They further go on to describe two types of "faces": the positive face reflects our desire to be liked and approved of by others, and the negative "face" is our desire not to be disrupted or forced to do things that we do not want to do (Brown & Levinson, 1987). Ting-Toomey (1988) has links this theory with Hall's high vs low-context model, describing how in individualist, low-context cultures there is more emphasis on personal freedom and the desire not to be disrupted by others, at the expense of being liked within the group. In high-context cultures there is a need to be approved and liked by others at the expense of personal freedom and comfort (Hall et al., 2004; Lee & Lee, 2007; Ting-Toomey, 1988).

Since most participatory methods have been developed in western or Scandinavian societies, individualistic low-context cultures that value the importance of negative face over positive face. They often bias this perspective making the transfer of these methods to other contexts difficult (Lee & Lee, 2007; Winschiers-Theophilus, 2009). This is well documented by western scholars when working in Asian or African contexts, which are generally considered to be collective high-context societies that favour positive face over negative face (Hussain et al., 2012; Lee & Lee, 2007; Oyugi et al., 2008). In these contexts, the different value placed on negative and positive face affects the way participants engage with collaborative design methodologies that can render the design process ineffective. For example, in three participatory projects based in Cambodia, Namibia and India, standard prototyping techniques failed to produce generative outcomes, as local stakeholders were often wary of openly critiquing their peers or the other researchers publically, fearing that they or others would lose “face” and their honour in the group (Hussain et al., 2012; Oyugi et al., 2008; Winschiers-Theophilus, 2009). This extended to other group activities, such as brainstorming or think-aloud processes (Winschiers-Theophilus, Chivuno-kuria, et al., 2010), where lower-ranking individuals within a social group were afraid to disrespect high-ranking members by talking out of turn or contradicting their ideas. This then results in one or two people participating by sharing their ideas, while the others just listen (Sabiescu, David, van Zyl, & Cantoni, 2014; Winschiers-Theophilus, 2009), defeating the purpose of activities meant to help a group generate collective ideas.

These cultural models are often combined with others and applied by researchers and practitioners to better understand new contexts and appropriate western methodologies in order to facilitate better participation and engagement across culture. However, it is important to note that many researchers, and indeed Hofstede himself, warn against stereotyping whole groups of people using cultural metrics, models and tools. While models can help to provide insight regarding culture and behaviour, they are often generic and do not adequately take into account the complex and multifaceted aspects of individuals and interpersonal relationships. In addition to this challenge, societies have the capacity to change and develop, thus cultural models should not be seen as stagnant or fixed (Van Boeijen, 2013; Van

Boeijen & Stappers, 2011; Winschiers-Theophilus, 2009; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

To illustrate this point, one can look at a project based in Kenya where European designers arrived two weeks late for an appointment they had set up with local stakeholders. The designers had assumed that timeliness was not valued in an African setting, as they had heard from others that “African cultures” were polychronic. To their surprise, the local stakeholders were upset that they had arrived so late. This then challenged their perspectives and forced them to reflect and rethink much of what they had assumed (Van Boeijen & Stappers, 2011).

2.3.2 Ethnography

In contrast to cultural models, ethnography can be described as the study of culture through the immersion of researchers in the everyday environment of those they wish to understand. This involves exploring the culture of the people and space through dialogue, experiential learning and observations, which is synthesised by the researcher into an ethnographic analysis (Blomberg & Karasti, 2013; Brereton et al., 2014; Crabtree, 1998; Dourish, 2014). The history of ethnography is rooted in the social sciences and was developed by western anthropologists in order to understand other cultures (Blomberg & Karasti, 2013; Dourish, 2014). However, it has been applied to broader contexts and integrated into many disciplines. One of these disciplines is that of Participatory Design. In the 1980s, a group of anthropologists joined computer scientists to improve information technology systems in what was termed the cooperative design movement (Blomberg & Karasti, 2013). Subsequently, it has also been integrated into other collaborative design movements such as Co-design, HCD, UCD and Design Thinking (Brereton et al., 2014; Janzer & Weinstein, 2014; Steen, 2011).

There are many parallels between ethnography and collaborative design processes. They both recognise and value all forms of knowledge, especially with regard to viewing a “user” as an expert in their own lived experiences. They both take a holistic

approach when trying to understand a phenomenon by investigating not just the small details but also the larger context and history of a space. They both value mutual learning, through the act of participating in daily events or experiential activities with “users”, in order to develop empathy and understanding (Blomberg & Karasti, 2013; Brereton et al., 2014).

However, where they differ is that traditional ethnography is mainly concerned with understanding a culture and its context without the data being used to enact change, whereas Participatory Design and other collaborative design methodologies aim at developing design interventions, thus they use ethnography as a way to collect data to stimulate design dialogues and inspire design outcomes (Blomberg & Karasti, 2013; Brereton et al., 2014; Crabtree, 1998). This new application of ethnography has been described as rapid ethnography, a faster and more focused form of ethnography, which aims at collecting data that can help to inspire a design outcome without long-term emersion in a context, gaining acceptance into a foreign community or the development of strong relationships with the “users” (Blomberg & Karasti, 2013; Brereton et al., 2014, 2015). While there are positive advantages to this new form, such as the speed and cost, Social Design scholars and sociologists have warned that should one choose not to engage in long-term emersion and relationship building with “users”, the research gathered by rapid ethnography is often shallow, generalised and informed by the researchers’ own biases (Blomberg & Karasti, 2013; Brereton et al., 2014, 2015; Janzer & Weinstein, 2014). Should designers lack self-awareness and critical reflection when engaging in rapid ethnography, they can easily be fooled into a false sense of confidence in their understanding of their users and the context. Should they act on this understanding this can result in ill-fitting and problematic design outcomes and unethical practises that can anger individual users and communities, as they feel stereotyped, probed and exploited by the external designers (Blomberg & Karasti, 2013; Brereton et al., 2014, 2015; Van Boeijen & Stappers, 2011; Winschiers-Goagoses, Winschiers-Theophilus, Rodil, Kapuire, & Jensen, 2012).

2.3.3 Power Dynamics

Cultural models and ethnography can be useful tools for social designers to better understand contexts and people who are different to them. However, what is often omitted in the design literature and in practice is how the designer's culture impacts a collaborative design process, since these tools and models often only focus on understanding the "user's" context and culture, with little reflection on the designer's own background or the power dynamics between these two different stakeholders (Brereton et al., 2014; Sabiescu et al., 2014; Winschiers-Theophilus, 2009; Winschiers-Theophilus, Bidwell, et al., 2010). Historically western designers' perspectives, methods and technology has been seen as "neutral" or "universal" (Bardzell, 2010; Irani et al., 2010; Kapuire et al., 2015; Robertson & Simonsen, 2012; Rodil et al., 2011; Winschiers-Theophilus, 2009), however this is clearly not true since they have been shaped by their own culture, history and context (Irani et al., 2010; Kapuire et al., 2015; Sabiescu et al., 2014). If this notion goes unexamined, there is a real danger that designers view differences in other cultures as deficiencies to be remedied (Brereton et al., 2014; Winschiers-Theophilus, Chivuno-kuria, et al., 2010), especially if the social norms of the foreign context conflict with their own value system and they find it hard to work within the allotted boundaries. This is most common when western designers work in hierarchical or patriarchal communities, given that these structures can challenge their own ideas of participation and democracy (Blomberg & Karasti, 2013; Boeijen & Stappers, 2011; Hussain & Sanders, 2012; Rodil, Winschiers-Theophilus, & Jensen, 2012; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). However if they choose to enforce their own western ways of working they can echo a "colonial" approach, which can upset local stakeholders, destabilise communities and displace different knowledge traditions (Bardzell, 2010; Kapuire, Winschiers-Theophilus, Chivuno-Kuria, Bidwell, & Blake, 2010; Rodil et al., 2012). All of this then contradicts the underlining core value of the Participatory Design movement (Blomberg & Karasti, 2013; Lucena et al., 2010) and place strain on the cross-cultural collaborative design process. (Peters, Winschiers-Theophilus, Awori, et al., 2014; Winschiers-Theophilus et al., 2015).

In the social sciences, this challenge is well understood, given that many methods, indeed ethnography itself, emerged from a colonial past (Brereton et al., 2014; Dourish, 2014). One of the ways traditional ethnographers address this power imbalance is to turn the mirror on themselves and practice deep self-awareness and reflection. Researchers explore and acknowledge their own biases and attitudes to a foreign context before, during and after they enter the space. This helps them to identify any internal paternalistic or problematic approaches they may carry with them into a project, helping to ensure that their interactions with foreign stakeholders are respectful and free of prejudice (Blomberg & Karasti, 2013; Brereton et al., 2014; Christopher, Watts, McCormick, & Young, 2008; Dourish, 2014). Social Design scholars have highlighted that this personal reflexivity and awareness is often missing in cross-cultural collaborative design projects and emphasise that designers should integrate this practise into their work in order to increase their cultural sensitivity and awareness, ensuring that their engagements with others are respectful and free from harmful biases (Blomberg & Karasti, 2013; Kapuire et al., 2015; Sabiescu et al., 2014; Van Boeijen & Stappers, 2011; Winschiers-Goagoses et al., 2012).

However, it is often difficult for them to interrogate their worldview, especially if it is the dominant global paradigm. Yet there are ways to overcome this challenge and gain a deeper understanding. Design scholars have proposed this can be achieved through reflective activities, such as journalling or partnering with local stakeholders who are able to provide insight and guidance regarding their behaviour (Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). Most important are their attitudes towards others, which should be humility, bravery and openness. They need to listen, learn and change their internal “roadmaps”, which is often an uncomfortable and scary process, but one that is necessary if they are to work in culturally respectful and generative ways (Lucena et al., 2010; Van Boeijen & Stappers, 2011; Winschiers-Theophilus, Bidwell, et al., 2010).

While it can be difficult and problematic as an outsider to challenge local norms in a foreign context, it is not always a bad thing to introduce new ideas or ways of

working. However, that should be done with great respect, self-awareness and in conversation with local stakeholders. A good example can be seen in the Namibian Participatory Design project with the introduction of visual methodologies and use of a computer tablet. At first the designers were worried that these forms of communication were too foreign for the users to understand, or might conflict with the predominantly oral tradition of the village since the elders had little practice with either a pen or a computer. To their surprise, all participants enjoyed both technologies to the extent that the elders continued to use the tablets long after the activity was over (Kapuire et al., 2015; Rodil et al., 2012). The participants explained that while they valued their traditional knowledge and wanted to preserve it, they were also happy to learn new things, as they often felt isolated and removed from the fast-growing urban world (Kapuire et al., 2015).

2.4 Cross-cultural communication

A large part of cross-cultural collaborative design literature focuses on cross-cultural communication, with the assumption that effective communication can assist disparate stakeholders to better navigate cross-cultural collaborations (Brereton et al., 2012; Hussain & Sanders, 2012; Lee & Lee, 2007; Rodil et al., 2012; Winschiers-Theophilus, 2009). The following sections have been divided into common communication barriers and highlight the different ways design scholars and practitioners are overcoming these challenges.

2.4.1 *Social structures, protocols and cross-cultural communication*

No matter what form of communication we choose to use in order to collaborate across the social divides, the social structures and protocols of the space we find ourselves in will have an impact on the way we participate and interact. These norms and boundaries are influenced by perceived social categories, such as age, gender, race, class, language, religion, physical ability, nationality and education. In order to ensure that participatory processes are generative and successful, design activities and forms of communication must be appropriate to suit the protocols of the context (Brereton et al., 2014; Hussain et al., 2012; Janzer & Weinstein, 2014; Peters,

Winschiers-Theophilus, Awori, et al., 2014; Winschiers-Theophilus, Bidwell, et al., 2010; Winschiers-Theophilus, Chivuno-kuria, et al., 2010; Winschiers-Theophilus et al., 2015). This is particularly relevant when working in established communities where long-standing implicit and explicit social systems and rules are in place. This makes it easy for foreign stakeholders who lack self-awareness and cultural knowledge to disrupt and disrespect these protocols and potentially jeopardise the design process and relationships with local participants who may feel offended and upset by this behaviour (Hussain et al., 2012; Strømstad, n.d.; Van Boeijen & Stappers, 2011; Winschiers-Theophilus et al., 2015).

As a result, many design scholars stress the importance that foreign designers engage in preliminary research regarding the communities they wish to work with before entering the space (Janzer & Weinstein, 2014; Lucena et al., 2010; Winschiers-Theophilus et al., 2015). While this is often a difficult task, given that many social norms are implicit and can only be understood once immersed in a context, it is important that the designers understand how the context may differ from their own, in order to remain self-aware and show respect to the local culture (Hussain et al., 2012; Strømstad, n.d.; Van Boeijen & Stappers, 2011; Winschiers-Theophilus et al., 2015).

A great way for outside stakeholders to understand implicit social behaviours and adapt methodologies to suit new contexts is to partner with local organisations or individuals before entering a community. These types of stakeholders have been described in the design literature as “bridges” or “gatekeepers” (Hussain & Sanders, 2012; Kapuire et al., 2015; Winschiers-Theophilus et al., 2015). They act as “watch dogs” by providing a safe space for local participants to express any unhappiness or frustration regarding the outside stakeholders’ behaviour. They hold outside stakeholders accountable for their actions and either help to change their behaviours or they ask them to leave if they do not believe they hold the community’s best interests at heart. The reason gatekeepers are effective is that they often match the power of the outside stakeholders and are unafraid to call them out or challenge their behaviour which can be hard for an individual participant to do (Kapuire et al., 2015;

Ramachandran, Kam, Chiu, Canny, & Frankel, 2007; Winschiers-Theophilus et al., 2015).

Gatekeepers and bridging stakeholders also provide foreign designers with a wealth of information, as they are able to reveal implicit social norms, educate designers with regard to social protocols, and highlight potential taboo topics or controversial power dynamics in the space. They can also assist in the adaptation of design methods and activities to suit a context and connect designers to key local stakeholders. All of these are imperative to the success of cross-cultural collaborative design (Chueng-nainby, Fassi, & Xiao, 2014; Hussain & Sanders, 2012; Kapuire et al., 2015; Winschiers-Theophilus et al., 2015)

Other common ways social designers attempt to understand the social norms of a foreign context are through activities aimed at building empathy and cultural understanding. These include design games, storytelling, cultural probes and drama activities. The main aim of these activities is to facilitate a process where the users invite the designers to enter their world, in order to better understand their value systems and cultural behaviours. This is done either through dialogue or experiential learning (Buskermolen & Terken, 2012; Mattelmäki, 2008; Mattelmäki & Battarbee, 2002; Muller & Druin, 2001; Vines, Denman-Cleaver, Dunphy, Wright, & Olivier, 2014). For example, a popular ethnographic design tool is that of the cultural probe. Described as an autobiographical reporting tool, it is often comprised of diaries, prompting questions, maps, postcards and cameras for users to document their everyday life. The information gathered is used in the design process to inspire designers and enhance collaborative design dialogues between the different stakeholders (Blomberg & Karasti, 2013; Brereton et al., 2014; Mattelmäki, 2008). In a Namibian cross-cultural Participatory Design project, Herero villagers were given probes in the form of flip phones and asked to record their daily life. The autobiographical nature of the probe meant that the data were not influenced by the researcher's presence. The data were reviewed by the researchers, first on their own and then with the villagers. During the group dialogues, the probes acted as triggers, helping to stimulate discussion and highlight differences between the two groups

(Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). While these types of probes help to reveal culture by giving designers a window into their user's world, they can be one-directional and extractive, requiring that users reveal elements of their life without the designers reciprocating. This can lead to users feeling exposed and exploited, adding to power imbalances within the design process and limiting the development of trusting relationships between the different stakeholders (Blomberg & Karasti, 2013; Brereton et al., 2014; Kapuire et al., 2015).

Adapting the collaborative process to suit a specific context is often a nuanced process. Over time, common challenges have emerged and general solutions have been developed by design practitioners that others can learn from. For example, in more hierarchical or patriarchal societies "think out loud" group activities, such as brainstorming and prototyping, are often unsuccessful and need to be appropriated if they are to suit these contexts. The social norms that govern these spaces usually dictate who can engage in an open forum, and the participation of some participants is then limited (Boeijen & Stappers, 2011; Hussain et al., 2012; Winschiers-Theophilus, 2009). Many case studies highlighted the fact that women did not fully participate in the presence of local or foreign men in Asian and African rural contexts (Kapuire et al., 2015; Sabiescu et al., 2014; Van Boeijen & Stappers, 2011; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). The same was true with younger participants or employees when their boss was present in urban Asian contexts (Hussain et al., 2012; Kapuire et al., 2015). This is not to say that the participants did not have anything to contribute, or that the elders or bosses did not want them to participate. It just meant that the form of the activity did not create a safe space as it conflicted with local norms and needed to change if the participants were to feel comfortable to participate freely (Hussain et al., 2012; Kapuire et al., 2015). Simple ways in which designers facilitated this was to separate the group and hold smaller or individual engagements. In the intimate groups, participants were able to open up and speak freely without the fear of contradicting others or challenging social structures (Hussain et al., 2012; Van Boeijen & Stappers, 2011).

The separation of stakeholders is also a useful method when discussing taboo or politically charged topics. The controversial nature of these issues meant that they prevented participants from speaking openly, as they either felt embarrassed or scared to talk in front of those they did not trust (Björgvinsson et al., 2012b; Hussain et al., 2012; Van Boeijen & Stappers, 2011). These topics can often be implicit and difficult for the designer to understand. In a case in Cambodia, a Norwegian designer working with physically disabled youth to design better prosthetic limbs, found it difficult to engage with the youth or their families about the topic of disability. She learnt that, according to local practice and religion, a physical disability is a punishment from a past life and brings with it shame and stigma. In addition to the controversial nature of the topic, the age of the participants, and the fact that she was foreign, meant that the participants and their families felt even more uncomfortable discussing the topic with her as they did not know her or trust her (Hussain & Sanders, 2012; Hussain et al., 2012). For this reason, it is important that foreign designers partner with local stakeholders in order to understand what emotional responses their project may elicit before starting the engagement. This will help them to prepare and create safe spaces that will not negatively impact the participants by putting their emotional or physical safety at risk (Hussain et al., 2012; Van Boeijen & Stappers, 2011).

In more collective communities, individual activities and separating a group do not work that well, as participants can be uncomfortable voicing their opinions without discussing it in the presence of others (Björgvinsson et al., 2012b). In these cases, designers must find creative ways to address power dynamics in the group to ensure everyone is able to participate. In a collaborative Participatory Design project in India, designers tapped into the Bollywood culture in order to create activities in which users felt comfortable to openly critique design prototypes. They did so by designing a template that drew inspiration from Bollywood film reviews, a socially acceptable form of critique. They applied this concept to the design prototypes and asked users to write reviews as if they were Bollywood movies. The process was very successful, as the participants felt comfortable to openly critique the designs in this manner (Chavan, 2005; Winschiers-Theophilus, 2009).

In a Participatory Design project in China, users found it difficult to openly critique design prototypes, or talk about their opinions in the presence of researchers. Researchers developed a method using well-known pewter statues of characters from Chinese folklore that represented 10 different emotions. The designers asked users to match the statues with the emotion the design object or prototype represented. This provided the designers with an opportunity to talk about the match and the underlining emotional response in non-threatening and fun ways. This activity was successful as it helped to create a safe and familiar environment for the users to participate in (Chavan, 2005).

In a Namibian cross-cultural Participatory Design project, researchers felt that the cultural disparity between them and the villagers was so vast that only through a preliminary collaborative design process could they successfully adapt the design methodologies to suit the context. Together with the villagers, they began to understand the differences in communication and attempted to find activities that provided them with common ground. They felt that this collaborative design process was necessary in order to address any power dynamics in the group, since if they chose and adapted methods by themselves they were most likely to choose ones that bias their own perspective and place them in a position of power. This group started the design engagement by collaboratively designing the design process itself. This was a difficult process, but one that they felt would ensure the success of the overall project (Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

2.4.2 Verbal communication

There is often more than one language in a cross-cultural design process, which can lead to miscommunication and unequal participation. To address this challenge, many practitioners advocate for the use of a translator (Hussain et al., 2012; Van Boeijen & Stappers, 2011), who can help to bridge the language divides, but this is not without its own challenges. In a Namibian Participatory Design, project designers, developers and researchers from the Polytechnic of Namibia and some European universities collaborated with Herero rural villagers in order to design a technological indigenous

knowledge management system able to capture knowledge that had begun to erode with the urbanisation of rural youth (Rodil et al., 2012; Winschiers-Theophilus, Bidwell, et al., 2010). In order to address the language and cultural barriers, researchers initially communicated with villagers through a lead researcher who had grown up in the village. He was well positioned for the role as he was fluent in all languages and trusted by the village elders (Kapuire et al., 2015; Rodil et al., 2012; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). However, his position as a young male in the community hierarchy meant that he had to abide by social norms and this limited his ability to fulfil his role. For instance, he was not able to interrupt the elders in order to translate for the other researchers as this was seen as disrespectful. Thus, he mostly provided translations of conversations after the engagement and from video footage. While this process respected local social protocols it was lengthy and excluded the other researchers from participating in the moment (Rodil et al., 2012).

Frustrated by this engagement, the researchers experimented with other forms of translation. They introduced shorter and smaller group interviews that could be translated in situ. This process offered the designers immediate insight and participation, however it was not a familiar form of communication in the community and the villagers felt uncomfortable. This resulted in the villagers keeping their engagement to a minimum, which compromised the depth of the discussion. Also, the often short and direct questioning limited spontaneity, which impacted the quality of information. Feeling that this form of translation did not produce rich collaborations, the researchers explored other options. They employed the use of a young male villager, with whom they had developed a relationship. He was trained in basic interviewing skills and acted as their guide. However, like the first lead researcher, by assigning him the role of translator the researchers were flipping the established hierarchy, upsetting the elders and putting a strain on their relationships, which had the potential to end the design engagement (Rodil et al., 2012).

It is clear from this example that translators are not neutral stakeholders, but hold their own biases and social positioning, which can affect the way they receive, listen to and communicate information in the design process. Translators may also add

what they deem “useful” or additional information to the conversation, which makes it hard for researchers to decipher what the participants have actually said (Hussain et al., 2012). Designers may unintentionally gravitate toward local people who echo their perspectives and ask them to be guides and translators, potentially skewing the power dynamics, as the translators may interpret the information in a way that supports the researchers’ agenda (Rodil et al., 2012; Vines et al., 2013).

One way to limit the use of a translator and a great way to strengthen relationships across social divides is the act of learning another’s language. Not only is it practical, but also a sign of cultural respect and commitment to equal participation (Kapuire et al., 2015; Van Boeijen & Stappers, 2011; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

2.4.3 Visual Communication

A successful way to work around language barriers is through activities that require limited verbal interactions and instead rely on visual communication (Rodil et al., 2012; Van Boeijen & Stappers, 2011; Winschiers-Goagoses et al., 2012). These activities are popular in Participatory Design literature and include design games, 2D and 3D mapping and prototyping. The success of these activities lies in their ability to provide a space in which participants can visually represent their thinking and experiment together in order to better understand each other. For example, 2D and 3D prototyping assist participants to visually articulate their ideas, which they may find difficult to do through words alone. These physical representations help to stimulate design dialogue by highlighting the similarities and differences of opinions in the group. The physical nature of the prototype also serves as a prop, assisting the group to think together and establish common ground (Hillgren et al., 2011; Muller & Druin, 2001; Rodil et al., 2012; Sanders & Stappers, 2014).

While visual activities may limit or remove the need for language, it is important to recognise that visual depictions, symbols and even depth perception are not universal but context and culturally specific (Irani et al., 2010; Van Boeijen & Stappers, 2011;

Winschiers-Goagoses et al., 2012). This must be taken into consideration when implementing these types of activities into cross-cultural collaborative design engagements. In the Namibian Participatory Design project, the differences in visual language between the stakeholders became clear with the development of the first prototype, a 3D interactive virtual map. The map depicted the village and was developed from narratives told by the villagers, but designed by foreign developers who had no understanding of the culture or context. As a result, the map was influenced by the developers' own visual language and cultural bias, which meant that when the villagers interacted with the map, there was misunderstanding and confusion around depictions of objects and activities. For instance, a generic tree was used to populate the map because the developers did not place importance on trees and instead focused on depicting people and animals accurately. When the villagers saw the virtual trees they were unhappy with the generic rendering and stressed the importance of depicting trees according to their species. They also stressed the importance of tree locations in order to develop an accurate map of the space which was an aspect that the developers had not known about or considered (Rodil et al., 2011, 2012).

Other visual challenges included the depiction of daily activities such as slaughtering of livestock or milking, which left the villagers confused when looking at the virtual scenarios. They also found the use of the computer icon for a rubbish bin for a village well confusing, because they would never throw their rubbish down a well in reality. Even after it was explained that the well and rubbish were virtual, they still felt uncomfortable with the idea (Rodil et al., 2011, 2012).

The designers realised that they needed to incorporate a more participatory approach in the next iteration of the map. They decided to experiment with a Pictionary-style visual game, as they felt a verbal process could not adequately address visual representations. They also hoped the visual activity could bridge the communication divide. The activity made use of a think-aloud, drawing, brainstorming session, and a Pictionary-style game and a design template. These all helped to highlight the differences and similarities in perspectives and imagery in a non-threatening and fun

way. The images and stories that came out of these sessions were used to develop the next iteration of the map which was closer to what the villagers visualised and could identify with (Rodil et al., 2011, 2012).

The researchers attributed the success of these activities to their ability to establish and maintain constant dialogue throughout the process. The stakeholders were provided with an equal platform of communication where they could better understand one another and co-create culturally accurate and relevant designs together (Rodil et al., 2011, 2012). Similar visual techniques have been used in other cross-cultural participatory design projects around the world, particularly when designers attempt to bridge the language and cultural divides (Chavan, 2005; Hussain & Sanders, 2012).

2.4.4 Technological divide

As cross-cultural collaborative design methodologies have emerged from the technology sector, many of the Social Design projects incorporate the use of technological devices as a way to support collaboration. These devices can be described as boundary objects (Fischer, 2004; Houssian, 2011), which can help to facilitate incremental development of a shared understanding between disparate people. Examples include documents, artefacts, activities, terminologies, rules and technologies. Boundary objects are not fixed, but evolve over time through their use and refinement, as the discussion they facilitate serves to improve communication, not the artefact itself (Fischer, 2004; Houssian, 2011). A good example of this can be seen in the Namibian Participatory Design project, where the researchers experimented with different technologies in an attempt to improve communication between them and the Herero community. They chose a computer tablet, a device the villagers found easy and fun to use, given their low level of computer literacy. The tablet served as a successful boundary object helping to highlight the different perspectives, navigation, visual rendering and iconography between the two groups, which facilitated different design discussions and improved the overall collaborative process. The device also helped to improve the communication between the village

elders and youth. The elders were hesitant to use the device, but the youth were eager to learn about the new technology, and together they were able to assist each other and interact with the technology (Kapuire et al., 2015; Rodil et al., 2012).

However, using technology to bridge the cultural divide is not a simple process and a number of challenges can arise when attempting to do so. The most common one is the difference in technological literacy between the stakeholders, which is a relatively simple challenge to overcome with the implementation of education and skills development (Merkel, Xiao, Farooq, & Ganoë, 2004; Winschiers-Theophilus, Chivunokuria, et al., 2010). However, the challenge of cultural biases inherent in different technologies based on where they were developed is more complex. These biases not only create power imbalances between disparate stakeholders, but also maintain them (Kapuire et al., 2010; Peters, Winschiers-Theophilus, Awori, et al., 2014; Winschiers-Theophilus, Bidwell, et al., 2010; Winschiers-Theophilus, Chivunokuria, et al., 2010).

In the Namibian Participatory Design project, designers realised that the technology they intended using to capture indigenous knowledge was biased towards a written tradition, as it was developed in the West and they knew this would conflict with the oral and performance-based practice of the Namibian community. This raised concerns regarding the usability of the technology, as they knew it would be difficult to match the western text-based recorded linear hierarchical communication system with the story-telling process of the Herero tribe. In the face-to-face collaborative story-telling process, the identity and social position of the person or people telling the story, in combination with their context, added a secondary layer of information for the listener to digest; the researchers knew this would be difficult to integrate into current software. However, they also recognised that they needed to find an alternative solution, as they were concerned that if they used western technology, it might force the Herero community to assimilate and adopt a written tradition. Allowing this to happen would ultimately result in the loss of the community's culture and further contribute to the degradation of their indigenous knowledge, which

would conflict with the central aim of the project (Winschiers-Theophilus, Bidwell, et al., 2010; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

Matching technology with local forms of communication is a global challenge, as it is easy for western developers to override the “voice” of local users by developing technology that biases their own worldviews. Yet there are things designers can do in order to ensure this does not happen. These include practicing self-awareness, adapting design methods to ensure equal participation and constant testing of prototypes in order to better understand cultural differences. These actions, along with others highlighted in previous sections, help to ensure technological solutions are culturally sensitive, inclusive and relevant, all of which helps to produce innovative and sustainable solutions (Kapuire et al., 2015, 2010; Peters, Winschiers-Theophilus, Awori, et al., 2014; Rodil et al., 2012; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

2.4.5 Bridging stakeholder

Research around boundary objects also describes the role of a “power user” (Fischer, 2004, p. 157), a human knowledge broker who assists the different stakeholders to connect with one another and with the object itself (Fischer, 2004). This is similar to what cross-cultural collaborative design scholars have described as bridging stakeholders - an individual or organisation that can move between different worlds with ease, helping to establish connections and building bridges between disparate stakeholders. Not only do they connect the disparate stakeholders together, but they can also help to speed up the relationship building process. This is due to the fact that by connecting outside stakeholders to local users, they inadvertently extend their social capital to include these outside stakeholders which then can help to establish trust between them. These bridging stakeholders also help to reveal implicit social protocols and guide outside designers regarding correct behaviour, preventing them from disrespecting local community members and jeopardising their relationships (Best, Smyth, & Serrano-Baquero, 2009; Hussain et al., 2012; Kapuire et al., 2015;

Peters, Winschiers-Theophilus, Awori, et al., 2014; Winschiers-Theophilus, Chivunokuria, et al., 2010; Winschiers-Theophilus et al., 2015).

For example, the lead researcher in the Namibian Participatory Design project was described as a bridge, since he was born in the Herero village and then educated as a developer at the Polytechnic of Namibia, which provided him with the knowledge and experience to understand the social norms of both spaces and assist the different stakeholders to communicate with one another across the different social boundaries (Chamberlain, Crabtree, & Davies, 2013; Kapuire et al., 2015; Peters, Winschiers-Theophilus, Awori, et al., 2014). Other bridging stakeholders described in the literature included, universities (Björgvinsson et al., 2012b), local organisations and community members (Best et al., 2009; Hussain et al., 2012).

2.5 Ethics and cross-cultural collaborative design

Over the past decade the Social Design field has grown and with it the research regarding the impact and ethics of stakeholder participation in Social Design projects. There is a growing call from scholars for the Social Design community to interrogate their methodologies and be held accountable for any unethical or problematic practices, especially with regard to collaborative projects implemented by western designers in the global South and other foreign contexts (Bardzell, 2010; Janzer & Weinstein, 2014; Muller & Druin, 2001; Nussaum, 2010; Tunstall, 2013; van Stam, 2013). This section will highlight some of the concerns raised by current scholars and practitioners regarding this topic.

Some of the hardest collaborative projects to manage are those involving vulnerable people or around taboo topics, since they can result in destructive and damaging real world outcomes if they are not handled sensitively and correctly (Björgvinsson et al., 2012b; Hussain et al., 2012; Robertson & Wagner, 2013). For example, this can be seen in a project that set out to improve toilet facilities for elderly and disabled people. The able-bodied young designers were not aware that many of their activities were difficult for the disabled participants to engage with and affected them in

negative ways. This only became evident during a break when a participant started crying, as he felt he had let the designers down when he could not activate an alarm system with his voice. The designers had not noticed his discomfort, as he had been masking his pain in order to participate with the rest of the group (Robertson & Wagner, 2013).

In a second Participatory Design project based in Sweden, the organisers came to realise that the aim of their design initiative - to provide immigrant women with employment - unintentionally challenged the patriarchal structures in their homes and communities. The outcome had serious, real-world consequences for those involved in the project, as they became targets of aggression and their premises were fire-bombed twice (Björgvinsson et al., 2012b).

These examples raise many questions regarding the involvement of vulnerable people in a design process. The challenge in these situations is that by excluding them from the design process as a “protective” measure, designers may unintentionally silence their voices and marginalise them further. Including them could also place them in physical and mental danger. In these cases, designers must find a way to include them, while ensuring their safety and well-being. Suggested ways of doing this include consulting with experts regarding the development of sensitive processes, working with local partners in order to better understand social taboos and always ensuring the anonymity of those participating (Hussain et al., 2012; Robertson & Wagner, 2013; Van Boeijen & Stappers, 2011).

A second common ethical challenge is that of overpromising and underdelivering. All too often foreign designers parachute into a community enthusiastic to make a change. They quickly realise the complexity of the social issues and the challenging task of implementing design solutions. With limited time and money, they often are forced to exit a community having underdelivered on design outcomes, leaving the community’s expectations unfulfilled and potentially contributing to feelings of distrust and animosity toward future foreign designers (IDEO, 2015; Lucena et al., 2010; Peters, Winschiers-Theophilus, Awori, et al., 2014; Sanoff, 2010).

In order to prevent this from happening, it is important that before a design initiative starts, those who wish to take part come together to articulate their different expectations. This helps the group to align expectations and ensure that everyone is happy with the general direction and intended outcomes of the project (Sanoff, 2010; Taylor, Wright, Olivier, & Cheverst, 2013). It also provides organisers and designers with an opportunity to clarify any misunderstandings or assumptions the other stakeholders may have regarding their participation and the project's outcomes (IDEO, 2015; Peters, Winschiers-Theophilus, Awori, et al., 2014). It is common for local stakeholders to assume that foreign designers may bring with them resources or job opportunities. Conversely, designers often presume that local stakeholders will be happy to participate free. These common assumptions are based in global stereotypes and problematic narratives, but are rarely the case (Kapuire et al., 2015; Lucena et al., 2010; Peters, Winschiers-Theophilus, Awori, et al., 2014).

An example can be seen in a Social Design project based in an informal settlement in the Western Cape, South Africa, where a rumour started that if the local people participated in the project the designer could connect them with electricity. The rumour was false and even though the designer was not to blame, local stakeholders felt unhappy once the project was over because they had participated with the hope that they would receive electricity (Roux & Costandius, 2013). A similar challenge was noted in Zambia, where a group of American designers started working with local people to develop innovative solutions to sanitation issues. During the prototyping phase, the designers unintentionally led the local people to believe that a test design idea would be implemented. When they found out it was just a concept and that there was no commitment from the designers to implement the solution, the local stakeholders were infuriated. In retrospect, the designers realised this misunderstanding could have been avoided with clear upfront communication (IDEO, 2015).

A common challenge in case studies is that the power dynamics between different stakeholders often prevent them from talking openly about their intentions and expectations, even when asked. For example, the local participants from the South

African project did not feel comfortable asking the designer if the rumour was true, as he was American and not from the community. He therefore did not know the rumour existed and was not able to address the issue until it was too late (Roux & Costandius, 2013). In these situations, a “gatekeeper” can play an important role by mediating the discussion around expectations, providing local stakeholders with the right information regarding what their participation will entail and assisting outside designers to examine their language and behaviour in order to minimise any unintended consequences of their actions (Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010; Winschiers-Theophilus et al., 2015). In some cross-cultural Participatory Design projects, researchers and local partners have developed project protocol guidelines and introductory workshops for foreign designers to better understand the culture and context before entering the project. These guides aim to protect established relationships with the local community by highlighting the importance of respecting local social protocols (Brereton et al., 2012; Cabrero et al., 2015; Winschiers-Theophilus et al., 2015). Even with this in place, there are often incidences of foreign designers disregarding established ethical protocols and putting relationships at risk. While this is unavoidable, these guidelines, like the gatekeeper, can hold designers responsible for their actions and if necessary remove them from the context all together (Cabrero et al., 2015; Winschiers-Theophilus et al., 2015).

The next ethical issue is around payment of participation in a Social Design project. Debate on this issue mostly focuses on payment of users or local stakeholders, and not designers or professional stakeholders. It is a common practice to pay professional stakeholders for their time and participation, but there is much debate and tension regarding payment of informal stakeholders, which raises the question regarding whose time is valued in the process (Kapuire et al., 2015; Thorpe & Gamman, 2011; Winschiers-Theophilus et al., 2015). Those in favour of paying local participants recognise that they are equal members of the design process and should be compensated for their time and involvement (Hussain et al., 2012; Peters, Winschiers-Theophilus, Bidwell, et al., 2014; Rodil et al., 2012). However, there are still many unanswered questions regarding how much these stakeholders should be

paid and what impact this may have on local social structures of the community (Peters, Winschiers-Theophilus, Awori, et al., 2014; Rodil et al., 2012). In the Namibian Participatory Design project, designers wanted to pay a young local translator more than the rest of the community because they had developed a relationship with him and felt he had worked harder than the others did. However, the local researcher disagreed, and felt this would upset the social hierarchy of the space and compromise their working relationships with the elders. Ultimately they found a balance between a western approach to payment, based on time and type of engagement, and the local social protocols of the space (Peters, Winschiers-Theophilus, Awori, et al., 2014; Rodil et al., 2012).

Non-monetary tokens of appreciation are other common ways for designers to show gratitude for local stakeholder participation. These may include thank-you dinners, small gifts and written acknowledgements. However, there is no standardisation regarding these types of tokens and they very much depend on the context and culture (Hussain et al., 2012; Kapuire et al., 2015).

Another ethical issue focuses on an “exit strategy” at the end of a Social Design project. There has been a legacy of Western social designers leaving communities with no contingency plans, resulting in participants being dependent on their return in order to continue or maintain the design initiative (Melles et al., 2011; Mulgan, 2014; Taylor et al., 2013). Often designers do not return and design solutions are quickly abandoned. Unsuccessful and discarded projects further contribute to feelings of resentment towards future foreign designers and in more extreme cases can have devastating consequences for the community (Meroni, Fassi, & Simeone, 2013; Mulgan, 2014; Taylor et al., 2013; Vines, Clarke, Light, & Wright, 2015)

It is important that designers put as much thought into their exit strategy as they do on their entry into a foreign community. Some of the recommendations for a successful and ethical exit include limiting short-term engagements and developing long-term relationships with a community. This approach provides participants with the skills to ultimately take over the project once the designers have left

(Björgvinsson et al., 2012b; Emilson et al., 2011; Sanya, 2012; Taylor et al., 2013; Winschiers-Theophilus et al., 2015). However, if a long-term engagement is not possible, then either the design outcome must be small and manageable, or foreign stakeholders should partner with local organisations that have the capacity to take on the project once they have left (Kapuire et al., 2015; Taylor et al., 2013). Another recommendation includes supporting and amplifying existing local design solutions. By supporting these initiatives, foreign designers avoid creating dependency, as local stakeholders are able to maintain design solutions themselves. Local solutions are also often more sustainable, as they already have community buy-in and are culturally relevant (Brereton et al., 2014; Thorpe & Gamman, 2011). Ironically, successful collaborative projects are often the hardest to end, as the different stakeholders may have developed deep relationships with one another and face a painful process of separation, which can result in their desire to collaborate indefinitely or fear being forgotten. There is very little one can do about these feelings, besides discussing them openly in an attempt to prepare stakeholders for the eventual departure (Kapuire et al., 2015).

While some suggestions have been articulated by scholars on the ethics of cross-cultural collaborative design, there is limited literature on this topic in the Social Design field. However, there is a growing movement from scholars attempting to address these issues and provide designers with a framework of best practices in order to limit problematic engagements and hold designers accountable for their actions (IDEO, 2015; Vines et al., 2015).

2.6 Relationships and Cross-cultural collaborative design

While most of the cross-cultural collaborative design literature focuses on understanding culture in order to improve communication methods in the collaborative process, a small group of scholars, mostly positioned in the global South, have begun to look at relationship-building as the foundation for successful cross-cultural collaborative design (Brereton et al., 2012; Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). They believe the depth and quality of

relationships between disparate stakeholders are more important to the success of cross-boundary collaborative design than the communication methods themselves. These relationships help to improve trust between participants and level power imbalances within the group, which, in turn, helps to support equal participation, leading to effective communication across the social divides (Brereton et al., 2014; Peters, Winschiers-Theophilus, Awori, et al., 2014; Rodil et al., 2012; Van Boeijen & Stappers, 2011; van Stam, 2013; Winschiers-Theophilus, Chivuno-kuria, et al., 2010)

“Peer-to-peer collaboration calls for trust, and trust calls for relational qualities: no relational qualities means no trust and no collaboration.”(Jégou & Manzini, 2008, p. 32)

Some of the ways scholars suggest trusting relationships can be established is through informal activities, such as sharing personal stories, teaching each other new skills, eating together, participating in daily activities, sharing photos, attending birthdays and other significant celebrations (Brereton et al., 2014; Kapuire et al., 2015; Peters, Winschiers-Theophilus, Awori, et al., 2014). While these activities are similar to those that seek to improve cross-cultural understanding in the design process, where they differ is that they focus solely on relationship-building and thus do not produce any design ideas or outcomes. These activities are often more cyclical when compared to more traditional cross-cultural collaborative communication methods. They ask participants to participate and share equally, whereas cross-cultural communication methods are more one-directional and researchers learn about the user’s culture and personal life but are not required to share their own. Conversely, users learn about design methods, but do not teach designers about their own participatory or design practices (Brandt et al., 2008; Winschiers-Theophilus, Bidwell, et al., 2010).

Without the mutual act of sharing and vulnerability there is little room to establish trusting relationships and cultural understanding across the social divides (Van Stam, 2013), which is an important process if the group is to successfully navigate potential cultural clashes in the collaborative design process. By only focusing on the user’s culture, the designer is not required to become self-aware or recognise that their background has as much impact on the design process as those they collaborate with; not realising that they may be in danger of forcing their worldview on to other

stakeholders through the use of biased methods and design processes (Blomberg & Karasti, 2013; Kapuire et al., 2015; Van Boeijen & Stappers, 2011; Winschiers-Goagoses et al., 2012).

In a community setting, this process of relationship-building can help outside designers demonstrate their commitment to equal and ethical partnerships with local stakeholders. It can provide a space where participants can get to know one another and recognise their shared humanity, limiting the potential for exploitative or dehumanising practices (Winschiers-Theophilus et al., 2015). In an Australian Aboriginal community, the designers described this process as “reciprocity” and stressed the importance of engaging in reciprocity before starting a design engagement in order to establish trusting relationships with the community. Like many other indigenous groups, the community held deep distrust towards outside researchers, given the long history of exploitation and abuse they had suffered at the hands of similar people. This process of reciprocity provided them with a space to acknowledge the oppressive past and reconcile with one another, in order to collaborate equally moving forward (Brereton et al., 2012, 2014; Peters, Winschiers-Theophilus, Awori, et al., 2014; van Stam, 2013).

Despite the benefits of establishing relationships before starting a cross-cultural collaborative design engagement, these types of informal activities are often ignored or limited. This is mostly due to designers often growing impatient when engaging in activities with no design outcome. This, in combination with real-time and money constraints, can force stakeholders to move into the design process before establishing relationships (Kapuire et al., 2015; Peters, Winschiers-Theophilus, Awori, et al., 2014).

2.6.1 *Infrastructuring*

One more concept connects back to the idea that relationship-building helps to support cross-boundary collaborative design for Social Innovation: the “infrastructuring” of what Scandinavian Participatory Design scholars describe as

networks of long-term, open-ended relationships that help to support social innovation (Björgvinsson et al., 2012b; Dantec & DiSalvo, 2013; Hillgren et al., 2011).

“Coming from a participatory design tradition, we focus on the idea of infrastructuring as a way to approach Social Innovation that differs from project-based design. The activities carried out are aimed at building long-term relationships with stakeholders in order to create networks from which design opportunities can emerge”(Hillgren et al., 2011, p. 169)

These scholars propose moving away from short-term Participatory Design project-based initiatives toward the establishment of long-term, open-ended, citizen-driven collaborative design platforms. In Sweden this has manifested in “living labs” that are permanent government-funded public spaces that help to facilitate and support collaborative design engagements between diverse citizens around different topics over an extended period of time (Björgvinsson, Ehn, & Hillgren, 2012a; Björgvinsson et al., 2012b; Dantec & DiSalvo, 2013; Hillgren et al., 2011). In Italy, one can find a similar concept known as Creative Communities, citizen-led design platforms or groups for Social Innovation (Cantù & Selloni, 2013; Jégou & Manzini, 2008). In this sense, “infrastructuring” helps to prepare the “scaffolding” and lay the “infrastructure” for citizen-led platforms, where diverse people can come together in order to strengthen their relationships, design collectively and support Social Innovation. This is a process that these scholars propose better ensures longevity of the Participatory Design movement and contributes to an urban environment that supports social inclusion and innovation (Björgvinsson et al., 2012a; Dantec & DiSalvo, 2013; Hillgren et al., 2011).

The researcher found no academic literature that linked the work done by the small group of cross-cultural collaborative scholars (Brereton et al., 2014; Winschiers-Theophilus, Chivuno-kuria, et al., 2010) focused on relationship-building in the global South as a way to improve cross-cultural collaborative design projects, with the Participatory Design scholars (Björgvinsson et al., 2012b; Hillgren et al., 2011) focused on infrastructuring as a way to support cross-boundary collaborative design in the global North. There are clear parallels between the two groups, as they both place emphasis on the importance of relationship-building as a way to ensure the

development of resilient networks of stakeholders who are able to collaborate across the social divides successfully and develop joint design solutions that support Social Innovation in the face of growing social complexity.

2.7 Conclusion

It is clear from the literature that collaborative design in all its forms and degrees of participation positively contributes to and supports Social Innovation (Björgvinsson et al., 2012b; Blomberg & Karasti, 2013; Emilson, 2014; Greenbaum & Loi, 2012; Hussain et al., 2012; Robertson & Simonsen, 2012; Robertson & Wagner, 2013; Szebeko & Tan, 2010; Vines et al., 2013). However, as the design practice moves away from its place of origin and into different cultures and contexts it is important to recognise that the act of participation and democracy may not manifest itself in the same way around the globe. This has become increasingly apparent as western social designers move into the global South and attempt to implement western design methodologies in these new contexts. This often results in western methodologies contrasting and conflicting with local participatory practices (Blomberg & Karasti, 2013; Chavan, 2005; Halabi et al., 2013; Irani et al., 2010; Kapuire et al., 2015; Peters, Winschiers-Theophilus, Awori, et al., 2014; Robertson & Simonsen, 2012; Van Boeijen & Stappers, 2011; Winschiers-Theophilus, Bidwell, et al., 2010), which highlights the misconception that these collaborative design methodologies are “universal” and can be applied to any context without cultural adaptation (Bardzell, 2010; Irani et al., 2010; Kapuire et al., 2015; Robertson & Simonsen, 2012; Rodil et al., 2011; Winschiers-Theophilus, 2009). This common challenge has resulted in an increased interest by social designers to adapt appropriate collaborative design methods to suit new contexts if they are to be successful and retain their underlining values (Blomberg & Karasti, 2013; Brereton et al., 2014; Chavan, 2005; Halabi et al., 2013; Peters, Winschiers-Theophilus, Awori, et al., 2014; Robertson & Simonsen, 2012).

In addition to the adaptation of methodologies, there has been a call for greater self-awareness and reflection from western designers who wish to work in foreign contexts (Blomberg & Karasti, 2013; Kapuire et al., 2015; Sabiescu et al., 2014; Van

Boeijen & Stappers, 2011; Winschiers-Goagoses et al., 2012). This is so especially if they wish to work in the global South, where the legacy of colonialism remains real and painful, and where, without self-awareness, social designers have the potential to reinforce age-old global power dynamics and contribute to the displacement of local forms of knowledge and practice (Kapuire et al., 2015; Tunstall, 2013; Vainio et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). It is important that before designers enter a space, they reflect upon and understand how their social identity and position may affect the cross-cultural collaborative design engagement. It is only through self-awareness and reflection that they can attempt to effectively support Social Design and Social Innovation abroad (Lucena et al., 2010; Sabiescu et al., 2014; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

With these challenges in mind, Social Design scholars have begun to explore what constitutes culturally sensitive and ethical collaborative design processes outside a western context and between socially disparate stakeholders. While this is a fast-growing trend, few academic scholars are writing on this topic (Blomberg & Karasti, 2013; Irani et al., 2010; Puri et al., 2004), with even fewer positioned in the global South¹⁸. This has meant that there are large gaps in the literature to be explored and understood. For example, from this literature review it is clear that most of what has already been discussed with regard to cross-cultural collaborative design for Social Innovation focuses specifically on projects based in rural communities and across national and cultural boundaries. Here, it is common to find that organisers, researchers and designers come from an urban western background, whereas users come from a rural indigenous African, Australian or Asian context (Brereton et al., 2012, 2014; Hussain & Sanders, 2012; Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). This results in a dominant focus on understanding cross-national and cultural boundaries in order to improve collaborative processes, with little focus on other social boundaries such as race, class, gender, religion, etc. In addition, there is a need to further explore cross-boundary collaborative design

¹⁸Only the lead researchers from the Namibian and Australian projects were from the global South (Brereton et al., 2012; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

processes set in urban contexts and between stakeholders from the same country or community.

These gaps present the researcher with a unique opportunity to deepen the literature on cross-boundary collaborative design processes for Social Innovation both locally and abroad. The South African context is a perfect environment in which to investigate projects set in urban spaces with stakeholders from a range of social boundaries and who come from the same context or country. Thus her central research question reads:

What practices, mind-sets and interpersonal interactions help to support effective cross-boundary collaborative design for Social Innovation?

In addition to deepening the literature on this topic, her position as a design academic from the global South also helps to boost the representation of different academic voices in the Social Design community, which can help to balance the Western perspective in the field and equalise the underlying global power dynamics both academically and practically.

3. RESEARCH METHODOLOGY

3.1 Research design

The researcher chose to follow a qualitative Constructivist Grounded Theory approach, given that there were no predetermined hypotheses to test. This research method allowed the phenomena to emerge from the data, providing the researcher with an opportunity to construct her own hypothesis and answer the research question (Charmaz, 2014; Patton, 2002).

In order to collect data, she used purposive sampling in combination with semi-formal intensive interviews (Charmaz, 2014; Patton, 2002), in which she selected and interviewed 32 individuals who had participated in what they described as cross-boundary collaborative design initiatives for Social Innovation within a South African context. The types of social innovations produced by these projects did not interest the researcher, as she was more concerned with understanding the collaborative process itself. Thus, the projects the interviewees described came from a large range of Social Design initiatives, such as urban and environmental renewal, innovation in education and healthcare, the strengthening of social cohesion and so on. They shared a commitment to a collaborative process, which saw the bringing together of disparate individuals in an attempt to develop joint social innovations with the ultimate aim of implementing Social Design projects that were innovative in means and ends.

Given that the research question focused on the nature of cross-boundary collaborative design, the researcher intentionally sort out individuals that came from diverse backgrounds and held different positions within a collaborative design initiative. This ensured the richness of the data and limited it from biasing a specific perspective or voice. A full breakdown of the interviewee profiles can be found in the upcoming sections.

The researcher chose to apply the lens of Appreciative Inquiry (Cooperrider & Whitney, 2005) when developing the interview questions, which focused on the

moments of life and success experienced by the interviewees when engaging in collaborative design processes, instead of the more common deficit model that focuses on understanding a phenomenon by interrogating the challenges and breakdowns individuals experience (Cooperrider & Whitney, 2005). There were several reasons the researcher chose to use this approach, which will be elaborated upon in this section. The main reason for approaching the data from an appreciative angle was that she felt weary of the critical culture within the local Social Design community. This is not to say that she does not support critical reflection and commentary in the field. On the contrary, she advocates strongly for designers to become more critical of their actions, but is aware that this can take a toll on their wellbeing and those they interview. She felt that by inquiring into the moments of life and growth she could find the passion and joy she had lost, as well as provide the interviewees with a space to appreciate and celebrate their involvement and communities.

Once she collected the first set of data, she decoded the information using a Constructivist Grounded Theory approach (Charmaz, 2014; Corbin & Strauss, 1990; Suddaby, 2006). This inductive and interpretative process differs from other methods, as it does not apply or force pre-existing codes or categories on to the data. Instead, codes and categories emerge out of an iterative comparative process and are refined through theoretical sampling (Charmaz, 2014; Corbin & Strauss, 1990; Suddaby, 2006). Supported by the computer-coding programme NVivo, the researcher developed the first iteration of her theoretical framework from the data. She then presented it back to those she had interviewed in the form of a focus group. However, not everyone was able to come to the workshop; in the end only 17 people came. Of those present, ten had been interviewed previously and seven were new individuals from the Social Design and innovation sector. She hoped that by including new people in this focus group their presence and fresh perspective would further enrich the data. The structure of the workshop comprised an initial presentation followed by group dialogue. The workshop provided her with a safe space to receive constructive feedback regarding the first set of findings and ensuring that it reflected what had been said in the interviews. The dialogue offered interviewees a space to

discuss and refine the findings. In addition, the researcher asked them to think about how the work could support and be of value to the Social Design and innovation community locally and abroad. This helped to cultivate the findings further and produce a clear hypothesis that provides an answer to the research question.

3.2 Grounded Theory

Grounded Theory is a research methodology that was established in the 1960s by sociologists Barney G Glaser and Anselm L Strauss when researching death and dying in hospitals. What makes this methodology different from other research strategies is its emphasis on allowing a hypothesis to emerge from the data through an iterative process. This process involves the cyclical interplay between collection, comparison and analysis of the data, with the aim of uncovering common patterns and relationships in the empirical world. Theoretical sampling then guides the research journey as it evolves and establishes a robust theory (Charmaz, 2014; Martin & Turner, 1986; Suddaby, 2006; Wimpenny & Gass, 2000).

Glaser and Strauss offered Grounded Theory as an alternative to the popular positivism that had come to dominate the social sciences. They opposed the idea of “grand theory”, the notion that pre-existing universal truths governed human behaviour and that through scientific research these truths could be uncovered. Instead, they argued that social behaviour was constructed through the different and collective ways social actors understood and interpreted their world. They offered their method not as a way to test hypotheses, but as a way to generate new ones grounded in empirical data (Charmaz, 2014; Martin & Turner, 1986; Suddaby, 2006; Wimpenny & Gass, 2000).

Several years after Glaser and Strauss introduced Grounded Theory, they began to differ in their understanding of emergence. This led them to publish different methodological approaches to the analysis and coding of data in order for a hypothesis to emerge. Strauss, along with scholar Juliet Corbin, developed and published papers on technical and prescriptive ways to interpret and analyse data. Glaser disagreed with their approach and advocated for a more creative and loose

technique, but this unstructured approach was criticised for its complicated and vague composition (Cho & Lee, 2014; Kelle, 2007; Kenny & Fourie, 2014).

During the 1980s, Kathy Charmaz, a grounded theorist and student of Glaser and Strauss, modified the methodology further into what she defined as a constructivist approach. She had become dissatisfied with the notion of the researcher as neutral observer and detached expert. She rejected Glaser's idea that a theory was waiting to emerge from the data. Charmaz proposed that theories are constructed through the researcher's interactions with people and influenced by different research methodologies. She also softened Strauss's prescriptive rules and structured methods, replacing them with flexible guidelines, yet keeping them simple and easy for researchers to use. Thus, Constructivist Grounded Theory draws upon the original principles of the methodology, incorporating both Glaser's and Strauss' work, but recognises the researcher's involvement and advocates for researchers to examine the ways their own biases, assumptions and preconceptions influence their work (Charmaz, 2014; Cho & Lee, 2014; Kenny & Fourie, 2014).

Glaser criticised Charmaz's new methodology, arguing that it was misleading and did not resemble Grounded Theory, while Strauss and Corbin welcomed the practice and felt its adaptation appropriate in the ever-changing research trends and intellectual movements (Kenny & Fourie, 2014).

3.3 Method selection

The main motivation in using a Grounded Theory approach is the opportunity to develop a unique hypothesis where one does not already exist. The researcher has already highlighted the absence of a robust pre-existing hypothesis in the literature review and therefore does not wish to test a hypothesis, but instead seeks to develop a unique theory through Grounded Theory's inductive emergent process. The researcher has also chosen to use Charmaz's Constructivist Grounded Theory approach. The first reason for this decision is Charmaz's clear and user-friendly methodology, which is easy for a novice researcher to follow yet retains creative freedom and flexibility.

The second reason for using Charmaz's constructivist approach is its emphasis on the constructivist paradigm, which recognises the researcher's bias and influence in relation to their work. The researcher feels that while the data consists of her participants' narratives and experiences, she cannot help but analyse the data through her lens of understanding, and any hypothesis that she draws out of the data cannot be separated from her frame of reference or worldview.

Acknowledging this internal bias was one of the main motivations for holding a focus group after the initial interviews were finalised and the first analysis of the data completed. The focus group served as a space for past interviewees to reflect and critique the researcher's initial findings, with the intention that this may further dilute the researcher's "voice" and bias in the process when moving towards a final hypothesis. However, she recognises her "voice" cannot be entirely removed from the research.

3.4 Data Collection and interviews

Data collection in Grounded Theory is a systematic yet flexible process. Grounded theorists approach their data with rigour, actively exploring their research participants' worlds, learning from their lived experiences and attempting to uncover the relationships and patterns that emerge (Charmaz, 2014; Martin & Turner, 1986). In contrast with other qualitative approaches, grounded theorists do not wait until a large amount of data is collected before it is analysed. Instead, the analysis is conducted alongside the collection process. This iterative method aims to uncover leading questions and categories that then help to focus and guide future research. (Charmaz, 2014; Cho & Lee, 2014; Corbin & Strauss, 1990).

Grounded theorists use different forms of inquiry when collecting their data, which include informational, investigative or intensive interviews. Informational and investigative interviews help researchers to uncover the "facts" about a situation. Intensive interviews aim to understand how the research participants experience and relate to the world. Their in-depth nature helps to facilitate a space where participants can explore and interpret their lived experiences, inviting the researcher

into their world and revealing their terminology, value systems and lived experiences (Charmaz, 2014; Patton, 2002).

It is for this reason that intensive interviews are the main form of inquiry in Grounded Theory and the method selected by the researcher when conducting her interviews.

The researcher chose a semi-structured approach when conducting the intensive interviews. It provided her with a loosely defined structure, ensuring consistency between interviews while still allowing a level of informality. This helped to provide a relaxed environment where the researcher and interviewees could engage in a rich dialogue (Charmaz, 2014; Wimpenny & Gass, 2000). To ensure consistency, the researcher developed and used an interview guide¹⁹, a script that supported her during the interviews. The guide contained her predetermined interview questions and reminded her to hold a generative attitude of openness, objectiveness and non-judgment. It also helped to ensure good time management and reminded her to put measures in place that ensured the safety and wellbeing of her participants (Charmaz, 2014; Patton, 2002).

Some grounded theorists have criticised the use of an interview guide, arguing that it prevents spontaneity and emergence within the interview. However, Charmaz cautions against not using a guide, as interviews may become awkward, intrusive and untimely if left unstructured. Instead, she recommends that researchers use their guide in a flexible way, ensuring that spontaneity is still incorporated into the interview (Charmaz, 2014).

Interviewing is a complex qualitative research method and is not without criticism. One of the main concerns with this method is the retrospective and subjective nature of an interview, which raises questions around the accuracy of information. Critics argue that human behaviour is often inconsistent and there are differences between what people say in an interview and what they do in reality (Charmaz, 2014; Daphne, 2000). To offset this negative effect, Grounded Theorists attempt to collect a substantial amount of data, as it reduces the likelihood of misinformation and false

¹⁹ To read the interview guide refer to appendix A.

narratives. Furthermore, if inconsistencies become apparent in interviews it is important not to dismiss the data, but rather to use the opportunity to understand why this may be happening. Understanding inconsistencies helps researchers to uncover controversial topics or develop better interviewing techniques to address any technical problems (Charmaz, 2014).

Another challenge is the relationship between the researcher and research participant. Age, gender, race, class and education play a role in creating power dynamics in the interview. Building trust between the interviewer and interviewee is an important way to attempt to equalise power dynamics, however this is often difficult to achieve. Without trust, interviewees may falsify their information or redirect the conversation to suit their own agenda (Alsaawi, 2014; Charmaz, 2014; Goulding, 2002).

The researcher attempted to build trust with her research participants in simple ways. Before an interview took place, she discussed the confidential nature of the discussion and ensured the safety of the interviewee's personal data (Charmaz, 2014; Daphne, 2000; Goulding, 2002). She also encouraged interviewees to ask any questions about the study in order to create a safe space and ensure their comfort (Alsaawi, 2014). During the interview, she played the role of an interested learner and not a condescending expert, ensuring that her demeanour and attitude were open, curious and non-judgmental. This encouraged interviewees to open up and become experts in their own right, enabling deep communication (Charmaz, 2014; Daphne, 2000).

3.4.1 Interview questions

In keeping with a Grounded Theory approach, open-ended questions form the foundation of this research inquiry. Open-ended questions allow for spontaneity and are in contrast with the predetermined response categories of a questionnaire (Daphne, 2000; Frey, 2011). The lens of Appreciative Inquiry was applied to the carefully crafted questions.

3.4.2 Appreciative Inquiry

Appreciative Inquiry is an approach made popular by David Cooperrider and Suresh Srivasta in the late 1980s. It is a field of study that falls under the umbrella of Positive Organisational Scholarship, a loosely associated field of study that seeks to understand unusual and prominent positive phenomena in organisations, institutions and from the individuals who inhabit them. These researchers believe that by studying and understanding what makes happy and healthy organisations they may begin to articulate in a scientific manner how best to foster goodness, growth and resilience in organisations. This field of study has until recently been largely ignored in organisational development, given the belief that it was not possible to study “positive” phenomenon scientifically or rigorously. However, Positive Organisational Scholarship scholars have disproved this belief and are providing clarity on the naturally occurring but under-researched predisposition toward positivity that exists within our organisations and institutions (Cameron, Dutton, & Quinn, 2003; Nilsson, 2015).

In this way, Appreciative Inquiry offers a positive “life-centred” focus in organisational development, as it is a process that engages the individuals of an organisation in conversation regarding the life-giving moments and narratives they experience within the system, in order to grow these elements and strengthen the organisation. Appreciative Inquiry believes that words and images are active agents in building relationships, constructing collective meaning and ultimately shaping the way we see our world. Thus the foundation of Appreciative Inquiry rests on the idea that an appreciative inquiry in an organisation has the potential to create positive imagery and language that in turn triggers positive transformation in reality and contributes to the wellbeing of a system (Bushe, 2001; Cooperrider & Whitney, 2005; Watkins & Mohr, 2001).

While this method is currently used in the field of organisational change and development (Bushe, 2012; Cooperrider & Whitney, 2005), the practice did not start as an organisational development tool, but as a technique aimed at making Action Research more generative. Cooperrider discovered the power of

Appreciative Inquiry while completing his doctorate in 1979. He collected personal narratives that focused on “life-giving” moments within physician leadership, instead of moments of disjunction and breakdown. He found that people responded positively and openly when discussing aspects of a system they felt was most alive and healthy. This helped to generate rich data and improved the overall happiness of the interviewee during the process. This was in sharp contrast with the often defensive and secretive attitude interviewees had when questioned about any challenges and failures they faced. This would usually result in limited data and an interview that often engendered feelings of sadness and hopelessness, only impounding the problems people faced (Cooperrider & Whitney, 2005; Watkins & Mohr, 2001).

Cooperrider studied the difference between the two approaches and concluded that one could achieve as much success, if not more, using an appreciative lens. He pointed to the fact that the method’s lack of popularity is mostly due to the historical bias placed on the deficit model that positions it as more “effective” and “scientific”. However, this is not necessarily true and Cooperrider, along with other Appreciative Inquiry academics, have demonstrated the generative power of Appreciative Inquiry when attempting to grow the “life force” and sense of wellbeing in individuals, organisations, institutions and systems (Cooperrider & Whitney, 2005; Watkins & Mohr, 2001).

However, it is important to note that this appreciative approach is not about focusing on positive stories and rejecting negative ones, but finding value in all of life’s experiences. Successful approaches allow space for research participants to uncover value and appreciate aspects of even the most painful experiences. It is important that researchers do not regard asking positive questions as simply practicing Appreciative Inquiry. Appreciative Inquiry is an in-depth investigation of moments when a system was at its greatest and these narratives may be told through pain, sadness, anger and despair (Bushe, 2011, 2012; Watkins & Mohr, 2001).

3.4.3 Motivation to use Appreciative Inquiry

The researcher chose to use Appreciative Inquiry when developing her research questions for several reasons. The first stemmed from her curiosity regarding this new approach, as she was familiar with the deficit model of investigation and wished to try something new. She was specifically interested in the idea that Appreciative Inquiry focused on revealing the “life force” of a phenomenon, instead of its dysfunction, as she had become wearied by her involvement in past design projects that focused heavily on the breakdowns of systems and communities. She observed that this process had often left her and those she interviewed feeling depressed and hopeless, as many of the challenges discussed seemed so large and complex that affecting change seemed unattainable. She hoped that by focusing on the moments of life and growth within the interviewees’ experiences and narratives, they might begin to find the beauty in even the most difficult experiences. She hoped this process might also renew her own sense of wonder and passion for the field. Many interviewees responded well to this style of questioning and expressed the fact that they indeed felt a sense of happiness after finishing an interview. This pleased the researcher, as she did not want the interview process to be extractive and exploitative, and was happy it could provide a space for interviewees to reflect upon the powerful and positive moments in their experiences, regardless of the difficulties that often accompanied them.

The second reason for choosing this method was that it did not require the building of a large degree of trust before the interview process began. This was mostly due to interviewees feeling comfortable and happy to share moments of life and success in a personal narrative because it rarely painted them or others in a negative light. She also found that discussing difficult challenges through the lens of Appreciative Inquiry provided interviewees with a safe space to reveal intimate information in an easy and generative manner.

In some instances, interviewees only wished to discuss challenges they faced and found it hard to appreciate anything about an experience. This mostly occurred when they spoke of traumatic experiences that have left them still feeling triggered and

upset. In these cases, the researcher did not ignore their hurt or pressurise them to find moments of greatness in the sadness, but instead listened to their stories and allowed them the space to process their feelings. This did not occur often and when it did it was mostly isolated to one part of an interview.

Another benefit of Appreciative Inquiry is the fact that it focuses on latent moments of life and growth in an experience, regardless of whether the overall outcome of a project was considered successful. This meant that the researcher was able to draw from a large range of Social Design projects. She did not care if the project and its outcomes were labelled as failures. She was only interested in what the interviewees deemed as effective moments of cross-boundary collaborative design that occurred between the disparate stakeholders.

The researcher supports the argument made by Positive Organisational Scholarship scholars that it is not always possible to understand what gives a system “life” if one only studies its breakdowns. Instead, one must study the elements that give it vitality and maintain its health, in order to understand the phenomena in a more holistic manner (Kim S Cameron et al., 2003; Nilsson, 2015). The researcher believes that by applying the lens of Appreciative Inquiry to her research she can begin to understand what constitutes healthy cross-boundary collaborative design engagements and help to articulate these elements in a way that can benefit others in the Social Design community.

3.4.4 Selected Interview questions

Below are the open-ended appreciative questions used in the semi-formal intensive interviews. Due to the semi-formal nature of the interviews, not all questions were used in each interview. The questions also developed over time and some were only included in later interviews.

Key questions:

- Describe a time in your organisation when you felt most engaged.
- Tell me a story of a time when you felt especially innovative when working with a group of diverse people in a collaborative design process.

- Describe the most powerful and positive design partnership you have had with someone from a disparate background. What do you think contributed to its success?
- What has been your greatest learning from a participatory collaborative process?
- Describe an effective collaborative method that you have used or seen others use when working with groups of cross-boundary stakeholders.
- What advice would you give the different stakeholders before they enter a collaborative design process?
- What methods do you use to manage conflict across the social divide during a collaborative design process?

3.5 Sampling method

The researcher started with purposive and snowball sampling and moved on to theoretical sampling once the hypothesis began to emerge. Purposive sampling is the pre-selection of specific individuals or organisations by the researcher, based on the belief that they will supply rich data on the researched phenomenon (Oliver, 2011; Palinkas et al., 2013). In addition to purposive sampling, the researcher engaged in snowball sampling, a technique that helped to reveal potential future interviewees based on recommendations made by previous participants once they had completed their interview (Atkinson & Flint, 2011). She did so in order to expand the pool of interviewees and engage with a new and diverse group of people, a process that helped her collect rich data and deepen the subsequent findings. Once the researcher had conducted some interviews using purposive and snowball sampling, she was able to use theoretical sampling, a research technique connected with Grounded Theory. This method worked in conjunction with the iterative data analysis process of Grounded Theory, which meant that as the researcher began to code she observed overarching theoretical categories emerging. With these categories in mind, she selected the last set of interviewees and redefined her interview questions in order to specifically populate and saturate these groupings. This process helped to ensure the theoretical categories were robust, which would contribute to a solid hypothesis (Charmaz, 2014; Maines, 2011; Thornberg & Charmaz, 2013).

3.5.1 Participant selection

The researcher conducted a total of 32 interviews with individuals who had taken part in Social Design initiatives that used a collaborative process in order to develop design solutions contributing to Social Innovation. Below are the demographics of the interviewees. The researcher has chosen to highlight the interviewees' gender, race, nationality, profession and role in the collaborative design process. The categories were selected in order to show whose "voices" were included in the research and had an influence on the hypothesis. The researcher asked the interviewees to provide their own social identities, preventing misrepresentation by the researcher.

Interviewees were given the option to decline any categorisation that made them feel uncomfortable, although no one did.

Table 1. Demographics of interviewees			
Gender	Race	Nationality	Role Player
Male: 18	Black: 12	South African: 25	Designer/facilitator: 9
Female: 13	White: 9	Zimbabwean: 2	Facilitator/organiser: 4
Non-binary: 1	Coloured: 4	SA/Zim: 1	User: 4
	Cape Malay: 2	Italian: 2	User/facilitator: 3
	Other: 5	SA/Italian: 1	Facilitator: 3
		Colombian: 1	Social entrepreneur: 3
			Designer: 2
			Organiser: 2
			Designer/Social entrepreneur: 1
			User/Social entrepreneur: 1

In addition to the summary, one will find an interviewee map, which reveals the interconnectivity between the participants and projects. To protect the participants and the organisations that have set up the various projects, no names have been used. Instead, the researcher has chosen to use the social challenges that these projects aim to address as node titles.

interview and withdraw from the research at any point should they feel uncomfortable, or change their mind. If they chose to do so, the researcher would not use the information that they provided in the study. This did not occur and all the interviewees were happy to participate. The researcher provided the participants with a written consent form²⁰, indicating that all information they provided in their interview would remain confidential. Once the interview was completed, the researcher provided each interviewee with a written transcription, which they could amend should they feel it was incorrectly recorded. These actions aimed to ensure that the participants felt comfortable taking part in the process.

In addition to following an ethical code of conduct, the researcher acknowledged that she held a position of power within the interview and focus group process. She therefore attempted to remain self-aware throughout the research process and did not use this power for personal gain or to harm the research participants (Daphne, 2000; Goulding, 2002). By examining her internal biases and assumptions, she was able to collect and interpret the data in the most objective way possible (Charmaz, 2014; Daphne, 2000; Goulding, 2002).

3.7 Data Analysis

Grounded Theory is an interpretive process and its strength depends on the researcher's ability to understand and decode the data. Coding processes help researchers label, categorise, link and summarise different pieces of information. Grounded Theory coding differs from other methods, as it does not apply or force pre-existing codes or categories to the data. Instead, codes and categories emerge out of the iterative comparative process and are refined through theoretical sampling (Charmaz, 2014; Corbin & Strauss, 1990; Suddaby, 2006).

Supported by Nvivo, a qualitative data-analysis computer programme, a Constructivist Grounded Theory approach was taken in the collected interviews. This meant that the researcher started with an open coding process and moved into a focused coding approach. In the open coding process, she interrogated the interviews

²⁰ The consent form can be found in appendix B

line by line and incident by incident, labelling the data according to what theme or incident it was describing and clustering them together according to loose associations. This process was often iterative, as the researcher coded new interviews, resulting in the renaming of codes and organisation of clusters (Charmaz, 2014; Corbin & Strauss, 1990; Goulding, 2002).

After a large majority of the interviews had been loosely coded, she began to identify the most significant codes and group them together in a selective coding approach in which she formalised loose associations into overarching core conceptual categories. She then retitled and defined the concepts of each core category and its subsequent sub-codes and highlighted the interconnectivity between them (Charmaz, 2014; Corbin & Strauss, 1990; Thornberg & Charmaz, 2013). Once the main conceptual codes had emerged, the researcher moved into theoretical coding in order to generate the theoretical framework. Theoretical coding and its subsequent framework is the process whereby the researcher begins to apply their own analytical understanding on to the data, and instead of simply sorting and comparing the information they begin to describe the emerging hypothesis that integrates into a theory (Charmaz, 2014; Goulding, 2002; Thornberg & Charmaz, 2013). An initial hypothesis should not remain unverified, but refined over time as the core theoretical codes are populated until the researcher feels they have reached a saturation point and help construct a solid theory explaining the phenomena under study (Charmaz, 2014; Corbin & Strauss, 1990).

It is important to note that in keeping with the principles of Constructivist Grounded Theory, the researcher practiced self-awareness and reflection during the coding process as a way to avoid her own desire to explore what interested her, instead of focusing on what the data was telling her. Of course it is not possible for researchers to completely detach themselves from the analysis, but they can make a concerted effort to ground their categories in the empirical data (Charmaz, 2014; Corbin & Strauss, 1990).

One of the prominent and central categories to emerge from the interviews was that of relationships, which upon deeper exploration were divided into the following four sub-categories: relationship with self, with others, with history, and with process. While each of these categories contained different codes, they were linked to and influenced the others. Below is a brief description of each sub-category.

The first grouping sat under the title of “relationship with self”. This node focused on ways in which interviewees took an internal approach in order to better prepare themselves before entering a cross-boundary collaborative design engagement. The importance of practicing self-awareness and reflection before and during a collaboration was highlighted, which helped to increase respect and understanding between disparate stakeholders in the collaborative process and resulted in effective cross-boundary collaborative design.

The next category focused on “relationships with others”, which emphasised the importance of building strong and generative relationships across social divides. These relationships helped stakeholders establish a common base of understanding, and improved the collaborative process. The next grouping focused on “relationships with history”. These codes spoke to the fact that collaborative design projects do not take place in a vacuum. On the contrary, the social, political, cultural and historical landscape of a context has a large impact on cross-boundary collaboration. Many interviewees spoke about the importance of understanding the context and social norms of a space before engaging in collaboration. This awareness helped them to follow and respect local social protocols, minimising cultural misunderstandings and conflict, which led to easy and robust collaborations.

The “relationships with process” node focused on different processes and actions surrounding a collaboration that ensured its success. These included the set-up and exit strategy, their length and depth, and the methodologies and ethics implemented by the project team and participants involved.

3.7.2 Focus group

The initial findings were presented back to those interviewed, along with other external people from the Social Design and Social Innovation community, at a focus group hosted by the researcher. The reason she chose to hold a focus group rather than isolated interviews was twofold. The first was that it provided a social context, and the dialectic quality helped to highlight controversies and common viewpoints in the group. Focus groups can provide new information, as the participants build off each other's contributions to the conversation and form new opinions and draw new conclusions (Goulding, 2002; Hofisi, Hofisi, & Mago, 2014; Patton, 2002). The researcher then used the new information generated in the focus group to refine, deepen and focus the initial theoretical framework.

The second motivation for holding this session was to counter the concern that the researcher may be testing her own preconceived ideas, or following codes that interested her, instead of allowing the data to emerge, a common challenge within Grounded Theory (Cho & Lee, 2014; Suddaby, 2006). By providing a space for those she had interviewed to critique the initial theoretical framework, she could ensure that her "voice" and biases were diluted as much as possible.

Lastly, the focus group provided her with an opportunity to discuss how her research could be used to benefit the Social Design and Innovation community. The researcher had always intended that her findings remain open source and help to strengthen collaborative practices for Social Design and Innovation.

3.7.3 Focus group attendees

The researcher invited all 32 interviewees to attend the focus group, but only 10 individuals were able to attend. In addition to the past interviewees, the researcher opened the session to new individuals who were interested in the topic and involved in the Social Design and Innovation sector. By broadening the invitation, she was able to get new perspectives and integrate new voices into the thesis. Seven new participants came to the focus group, making a total of 17 who attended the session.

Below are the demographics of this group. It is also important to note that unlike the initial interviews, which were centred on an individual’s experience, this session focused on the collective articulation and opinions of the group.

Table 2. Demographics of focus group			
Gender	Race	Nationality	Role Player
Female: 10	White: 12	South African: 15	Facilitator: 8
Male: 7	Black: 4	SA/Zim: 1	Designer: 6
	Coloured: 1	American: 1	User: 3

3.7.3.1 *Ethics*

The researcher followed a similar process to that of the interviews when engaging with the focus group. However, before starting she privately informed all interviewees as to who would be present and allowed them the opportunity to decline the invitation should they not wish to engage or reveal themselves to anyone in attendance. At the meeting, she emphasised the confidential nature of the discussion and asked that all participants sign a confidentiality agreement. The researcher hired a trained facilitator to lead the discussion, manage the focus group and ensure that all participants had an equal opportunity to speak. The facilitator helped to create a safe space that safeguarded against any harmful and aggressive confrontations.

3.7.3.2 *Presentation and structure*

The researcher started the session with an icebreaker aimed at creating a friendly and relaxed environment. She discussed who was in the room and the type of engagements that were expected from the group. This included being respectful of each other’s contributions and allowing everyone a chance to speak. The researcher presented a background to the study, a brief literature review, her own interest in the topic, the demographics of the interviewees, and the initial theoretical framework before the participants moved into group dialogue.

3.7.3.3 *Large group dialogue*

The researcher was happy to hear that the interviewees were satisfied by the initial findings and expressed that it reflected what they had said as individuals and resonated with them as a group. The newly invited participants echoed this sentiment and felt that the presentation provided them with an overview of their common experiences. The group remarked that while the findings were not necessarily new or ground-breaking, they had not realised how similar their experiences were to those of others in the field. They felt that the presentation articulated a complete overview of the different elements that influenced effective cross-boundary collaborative design and provided them with the vocabulary with which to better articulate what they experienced in practice.

While the group discussed all sub-categories equally, two nodes from the sub-category “relationship with process” became central points of discussion. These were the “pre-project” and the “exit strategy”. Both were described in the individual interviews and by the focus group as different stages in a cross-boundary collaborative design process that came before and after the central design phase. For instance, the “pre-project” phase was described as the work that needed to be done before starting a cross-boundary collaborative design process in order to ensure its success.

Before a group even starts to participate together, I think there needs to be principles set out, expectations established and value systems aligned, a “preject” or “pre-project” I want to call it; a process where the group asks each other questions like “what are your expectations? What are your challenges that you have experienced? Where are the opportunities of you guys working together?” Because you need to get that right before you can work together. Of course you could just dive in and work together and hope to get lucky, but a lot of the time that is not the case, especially when the group of people are very diverse and share little common ground. – Participant 7 (facilitator/organiser)

The “exit strategy” was described as the final stage in the design process and end of a collaborative engagement.

"What is your exit strategy?" because it can't just be, "thank you this is the last session, there you go". If a plan is not put in place there is a high chance that

the project will fail once the designers have left, in addition to emotionally damaging the relationships formed, as local participants feel abandoned. – Participant 30 (designer/facilitator)

The group was interested in better understanding these phases, given that they suspected they played an important role in the cross-boundary collaborative design process. However, they knew little about the structure, impact and best practices of the process. They attributed this lack of knowledge to the current focus on understanding and developing the central collaborative design process, which focused on immersion, ideation, prototyping and testing workshops that resulted in a multitude of academic papers, methods and toolkits on the topic, but little information regarding the work surrounding the design workshop itself. This has also been articulated by other academic scholars (Andersen, Danholt, Halskov, Hansen, & Lauritsen, 2015).

The discussion highlighted different reasons the stakeholders wish to further understand these phases. For example, the designers and facilitators in the focus group wished to understand these phases so they could strengthen their practice in the field. They spoke with enthusiasm about the idea of compiling a list of best practices in each phase in order to strengthen the Social Design field. The local stakeholders and “users” in the focus group wished to understand how best to prepare themselves for the arrival of “outside” designers who may enter their community and exploit their resources and relationships. They felt that by strengthening the stages that came before and after a design process they could protect themselves and ensure that the collaborations were mutually beneficial and generative.

The group also spoke about how the disparity, diversity and history of the South African context posed more challenges when engaging in collaborative processes, as opposed to that in more homogeneous countries. They felt this to be especially true since there had been a rise in immigration and economic inequality, resulting in aggression, distrust and xenophobia between culturally disparate people in South Africa, as well as in other countries. However, it also provided an opportunity to better understand this process.

The researcher agreed with what was said in the focus group and found it immensely useful. Upon reflection, she decided to use what was discussed by the group to refine her initial framework, focusing on the pre-project phase and its role in supporting effective cross-boundary collaborative design for Social Innovation. Ideally, she would have liked to focus on both phases, but due to time limitations was not able to collect new data and felt that her current data focused mostly on the pre-project phase. She chose to re-look, label and organise her current data with this new perspective in mind, in order to build a more a specific and robust framework that spoke directly to the pre-project phase.

4. RESEARCH FINDINGS

4.1 Pre-project and generative relationships

This section explores the research findings collected from the second iteration of the data analysis, which specifically focused on the narratives that described the “pre-project phase”. This process then led to the development of several theoretical categories, which formed the foundation of the final hypothesis.

The researcher followed the description provided in the focus group when defining the pre-project phase, which she described as the preparation and groundwork implemented before the start of the collaborative design ideation, prototyping and testing phase. While coding and organising this data, she noticed a single theme begin to emerge: the importance of establishing and maintaining relationships between the disparate stakeholders before starting a collaborative design engagement.

At the core of what we're doing it's about relationships. The key assumption is that if you don't have good relationships, the idea of cohesion and the idea of meaningful democracy goes out the window. So we start with relationships, with fundamentally how people understand one another, appreciate one another and acknowledge one another. Then we come together and start collaborating. - Participant 12 (facilitator/organiser)

The researcher noticed that the description of these types of relationships established in the pre-project phase in order to support the future cross-boundary collaborative design engagement was not general, but a specific type of connection. While there is no single definition that emerged from the data to describe these types of relationships, the interviewees used a number of similar words and feelings to describe these connections, such as relationships of humility, vulnerability, trust, understanding, listening, empathy, tolerance, mutual benefit, learning exchange, investment and friendship. In summary, they described interpersonal interactions that had moved beyond simple acts of linear exchange and polite engagements to the establishment of intimate mutually beneficial connections.

As this category became a dominant theme, the researcher chose to use her own umbrella term, “generative relationships”, to define these connections. She felt the word “generative” best described the impact these relationships had on the cross-boundary collaborative design process, because the depth and quality of these relationships helped to establish a safe and welcoming environment that allowed participants to express their authentic thoughts and feelings without fear of judgment or attack by others. This, in turn, helped the group establish common ground, increase cultural understanding, level power dynamics and help the participants navigate the inevitable cultural clashes in the future design process. Ultimately, these connections helped to blur the social boundaries and disrupt embedded power dynamics between the disparate participants, so they could begin to acknowledge their shared humanity and ensure the generative nature of the future cross-boundary collaborative design engagement.

It quickly became apparent in the data that without these generative relationships, cross-boundary collaborative design engagements ran the risk of producing shallow participation and superficial outcomes. The legacy of colonialism and apartheid in South Africa has left a political climate of extreme economic inequality, with feelings of distrust and animosity across the racial and class lines. This has been exaggerated by problematic narratives such as the “saviour complex” and exploitative research and design methods used in the Social Design field, resulting in research fatigue and the alienation of different communities by social designers. This was revealed to the researcher in her data, as time and again interviewees made mention of two communities in the Western Cape that had experienced extreme design research fatigue and now refused to work with foreign social designers.

So it is very important building trust and relationship first. It is very important because if you don't have it there can be a tense atmosphere when you start a design process, which one doesn't want there. Because what happens is that the community members feel uncomfortable talking with the designers and are hoping and praying that they finish quickly so they can go home. I'd rather we don't talk about the design work at all and instead take the whole day to first build a relationship between us. Because if that relationship is in place then once you start working you are going to fly through the process more than what you could have done when you are actually trying to solve conflicts

all the time. Conflicts start when people don't trust or know each other. This delays the design process because it will take time for people who have just had a fight to start again, pick up and work together. - Participant 22 (designer/facilitator)

As this interviewee describes, generative relationships helped to build trust, which in turn contributed to the longevity of a project. A lack of trust meant that they were less willing to negotiate disagreements, became sceptical of other's intentions and felt undermined by alternative ideas. This slowed down the design process or resulted in the permanent breakdown of the project.

If I trust you and we have a fight because we disagree but we trust each other then we can stay together and say "what can we do?" But if I don't trust you then in every solution that you make I will try to look and think "mmm" she tried this solution because it is good for her not for me. So there is something that is wrong. We need the personal trust so I don't feel you undermine me and you not feel that I undermine you because I said something you don't like. For me that is the importance of developing personal trust and the personal relationships before starting a collaborative design process. - Participant 2 (designer/facilitator)

While the researcher could see the obvious value generative relationships brought to a cross-boundary collaborative design engagement, she was eager to reveal the nuanced reasons why they worked and how these connections were established and maintained across social divides. This is a challenge in the current South African climate, where there is little social integration and cohesion between citizens from different social boundaries, and where the process of reconciliation needs to take place on many societal levels for trust to be restored.

The final findings of this thesis explore this process in-depth, outlining the different ways interviewees ensured that these relationships developed across social divides, in addition to the measures they put in place in order to support their maintenance and growth during the collaborative design process itself. While the process of developing these relationships was described as organic and non-linear, the researcher chose to organise her findings in a linear framework, which consisted of two main themes with three subheadings in each section (as seen below). She felt a framework could better

articulate the “invisible” work of developing generative relationships during the pre-project phase. However, she acknowledges that the themes and examples placed within the framework often work in conjunction with one another and may not follow a clear-cut outline in reality.

Table 3. Outline of the Pre-project	
Establishing relationships	Maintaining relationships
<ol style="list-style-type: none"> 1. Internal actions 2. External actions 3. Connectors 	<ol style="list-style-type: none"> 1. Creating a group culture & safe space 2. Aligning expectations & timelines 3. Ethics

4.2 Establishing relationships

The first part of the pre-project phase focuses on the establishment of generative relationships between disparate stakeholders. Interviewees described a number of ways they intentionally or unintentionally were able to build bridges across the social divides. The researcher consolidated this information into three subheadings (internal actions, external actions and connectors) and outlined their importance and impact on a cross-boundary collaborative design engagement.

4.2.1 Internal actions

The first subheading in this section relates to how our internalised perspectives and worldview affect the way we interact and collaborate with others. If we are to build generative relationships, we must start from a place of self-awareness and reflection, exploring our internalised biases and triggers, in order to prevent them from negatively affecting the way we think about and engage with others. If we remain unaware and lack critical self-reflection it is easy to intentionally or unintentionally perpetuate stereotypes and reinforce power imbalances and social biases within our cross-boundary collaborative design engagements – which is not conducive to building generative relationships across social divides.

There is something that makes me very uncomfortable about a group of white designers winning all these awards and money, travelling around the world

because of a design idea they developed based off a problem that they don't even experience directly. It is an awful thing to feel because the end result is that lots of communities will benefit from their design solution, but it is very painful and uncomfortable for me as a person of colour to watch this process leading up to the use of this thing. What ends up happening is they get all the glory for doing this work and it's again like the relationship that we have the answers and we will save you. I would almost wait another couple of years to have the same thing come up in a way that has actually involved or spearheaded by someone who has got these problems. I think that these are the kinds of things that enforce the global white superiority complex and black inferiority complex and everything in between. So it is very uncomfortable for me to say that out loud but that is the way I feel. - Participant 7 (facilitator/organiser)

I realised that I thought because I have a lot of skills and I am a hearing person I can go and help deaf people. So I wanted to reach out, but I did it in the wrong way, mostly because it was all about me helping them and feeling superior to them, not thinking that they could teach or inspire me. I also didn't realise I had these feelings because I have a deaf brother and I thought I understood how to work with deaf people. But after a while and through self-reflection, I realised it was not an equal process and I did not respect them by thinking they could not teach me anything. That was a bias I had against them just because they were deaf. So now I have changed and I try to manage this bias by listening and learning from those around me, which is a humbling experience. - Participant 4 (social entrepreneur)

I always say that education makes us better. It makes you better than the next person. But it is not a nice phrase to say in isiXhosa, you are better than an uneducated person, just because of your education. Many designers come into poor communities with this attitude and it is not good. We should just say education improves our lives, but not makes us superior to other people. - Participant 22 (designer/facilitator)

These three quotes speak to a common superior attitude social designers often hold when engaging with less educated stakeholders, an arrogance that is often reinforced at university level, as the last interviewee describes when he points out how professional designers are often taught to act as specialists disregarding informal knowledge and practice. Regardless of the origin of this bias, coming in with a superior attitude can be detrimental to a cross-boundary collaborative design process, as it can cause participants to feel disrespected and undervalued, and prompt them to leave a project. Informal stakeholders may also feel intimidated by this superior attitude and only tell the designers what they think they want to hear,

which does not help to establish honest sharing, or the development of generative relationships.

Interviewees recommend that before designers start an engagement in a foreign context they reflect inwardly and interrogate their internal assumptions and biases regarding the context, the challenge and the other stakeholders. They need to ask themselves critical questions with regard to their involvement and impact on a cross-boundary collaboration and become aware of their own behaviour before attempting to engage with others.

I think the most important thing is to know yourself and be honest and try and find out more about yourself before you try and find out more about others. Just try to understand you and your position before you try to understand others and their positions. Understand why you're getting involved, but also to understand the lenses that you're viewing the project through. Is it someone else's issue? Or is it an issue that you experience? What will your role be in the project? Are you the correct person for this position? It might affect you in a different way than directly, so try and understand also the indirect ways that a project could affect you and you could have an effect on the project. – Participant 23 (designer/facilitator)

So definitely do your due diligence, figure out some stuff before you go in. Ask yourself these questions. Is this process necessary? Are these processes necessary? If I don't do this process what is going to happen? Are things going to continue as normal? How destructive will my presence be? Examine your privileges and the space that you are in and what you bring to the table. Why and I doing this? I would suggest that you really take a long time to do that. I think a lot of the time when we do things it is like kind of ego-driven and it is hard to tell when it is ego-driven. There is a place for ego, but you really want to ask yourself the big why questions before starting. If it is from an authentic space then go ahead and try minimise the potential damage. – Participant 7 (facilitator/organiser)

These critical questions serve as a starting point that guide designers through a process of self-awareness and reflection, and can unpack any problematic internalised biases they may carry. It can be uncomfortable and unsettling, but designers need to suspend and unlearn these behaviours in order to prevent them from creeping into their interactions with others. It is an important start to the pre-project phase, as it helps to provide a foundation for generative relationships.

It can also be hard to identify one's own biases, as they are often subconscious. This can be seen from the second quote when the social entrepreneur spoke about how he thought he held no bias towards disabled people., as his brother was deaf. What he had not realised was that we all hold internalised biases, regardless of our exposure to others. It was only through self-awareness and reflection that he shifted from a place of teaching to that of learning. He acknowledged that he had as much to gain from disabled individuals as they did from him.

Many interviewees spoke about the importance of entering collaborations from a place of learning instead of teaching. This is a powerful act of humility that demonstrates a recognition of the expertise and knowledge of others, which in turn creates an opportunity for mutual sharing and learning and provides fertile ground for relationship-building and successful collaboration.

It is important that we recognise we are experts in our own experience rather than an expert on the other. So we come from a place of learning instead of a place of knowing. And that was cool and people opened up and responded to one another. - Participant 6 (designer/facilitator)

I think going in saying that "we have no idea, this problem doesn't affect us" I'm being honest about it and helps give voice to those who it does affect. So we make it clear that we are here to actually learn from the community, because they are the specialists, we aren't coming in to be the specialists. – Participant 23 (designer/facilitator)

While some people may struggle to identify their internalised biases, others may be fully aware of them yet still battle to overcome their prejudiced thoughts and actions, since these thoughts and feelings are often triggered by past experiences.

Even as a facilitator you also have to unlearn some of the things that you know. With the gender-based violence group there was a guy there who had been in Pollsmoor (prison) for all kinds of things. So if you look at him and if you were walking in the street and he was walking you would pull your bag closer to you. But as a facilitator I needed him to feel that he was present in the room. I needed him to feel that he has as much at stake as all of us in the room. I had to see him as a human being not as a gangster or bad guy. And when I heard his story I was like "boy, am I glad I saw this guy as a person" and

not a person who had been in Pollsmoor. It helped me a lot to hear his story and it also helped others in the group. I was very glad that he was part of the project and collaboration. – Participant 29 (facilitator)

In this quote we can see that the interviewee was triggered by a participant (a former gang member) because of her own traumatic past with gang violence. However, through the practice of self-awareness she was able to fight any negative feelings she held towards him and treat him with equal respect. After hearing the man's story and seeing how it nourished the group and positively contributed to the process, she was glad she was able to manage these feelings and not exclude him from the process, which would have been detrimental for the group and for the man's own development. It is important that we identify our triggers before we enter a collaboration, limiting their negative impact on our interactions with others.

A second benefit of understanding our triggers in the pre-project phase is that it helps us to remain in control when we feel confronted.

I think people need to look inward. For me, I don't think I have taken the time to look inward enough and say "these are my pains etc". So when I do go out and encounter a person that triggers me it does not affect me that negatively and I can deal with them. But I didn't do that and I get frustrated and angry by these people. I think that I need to take the time to think about them and how to stop them from triggering me, but I know I shouldn't have to do this, they need to also work on themselves. But in reality these types of people will not change and they will never take me seriously. So a lot of inward work will help me to be stronger and deal with outward situations. – Participant 7 (facilitator/organiser)

This quote is from a woman of colour who often finds herself the subject of prejudice, particularly from white male designers, who often undermine her authority or underestimate her position. While she feels she has every right to call out their biases and challenge their actions, she was often full of anger and frustration when addressing these issues and struggled to articulate her feelings. One solution that she found helpful was to identify triggering situations before they happened and better prepare herself to deal with them. This helped her to remain in control and push past her anger, in order to calmly address any social ignorance and biases directed at her.

As we become more self-aware, so do we better understand our own personal tendencies, which at times can conflict or hinder the Collaborative Design process. For example, in the quote below the interviewee talks about how his natural tendency is to take a leadership position. However, this is not always appropriate or useful in cross-boundary collaborations, especially when he is participating in a community that is not his own, or one that he will not return to.

From my personal history, I tend to become a leader very easily and I know that is my weak point. Because if you become a leader it is very good for yourself, you feel important. The burden is then on your shoulders. But sometimes you are not the right leader, because I am a facilitator and not from the community. So because I am not the right leader I occupy a space and I make worse service for the community because I make it impossible for other people to occupy this space. For me this realisation is very difficult as it goes against my natural response. When I came here from Italy I started to see this more clearly and understand my natural tendency to be a leader. I never talk too much in Italy about this. Here I learn a lot. – Participant 2 (designer/facilitator)

This quote highlights the interviewee's internal struggle to suppress his desire to take on leadership roles in a collaborative project because he is a natural organiser. However, he recognises that he is not always the right person to take on this position, especially now that he has moved to South Africa from Italy and often works in communities that are not his own. He understands that by stopping himself from taking a leadership position he is allowing others from the community to fill the role, which helps to ensure the sustainability and success of the project once he has left. Without self-awareness, he would stifle the project, compromise its success and limit its sustainability and impact.

It is important that participants reflect on how their personality and social positioning can impact a cross-boundary collaborative design engagement. If they feel they are not the right people for the job, or it would be inappropriate for them to fill a certain position, they should step aside and allow someone else who is more suited to step in. Again, this is not an easy process as it requires that they forgo self-interest for the betterment of the collaboration.

There are so many different community groups and interests already involved in the project, which is great. But we knew that was going to be difficult to manage and we also felt that it wasn't best for us to do it, because unfortunately most of our core team are white women and in the setting there are a lot of strong male figures in the community and older women. So we knew that just from a cultural political perspective we were still fresh, we didn't have really rooted relationships. We knew to get through some of the conversation we needed to break down boundaries first and that wasn't our place to do that. So instead we chose a facilitator who was from the community and could successfully navigate the cultural landscape, understand the context, understand the social dynamics and who has the ability to work around. That was absolutely incredible. I will do it again and again. He was also seen as neutral and not a stakeholder, given he is neutral to the site and to the project, but he was born in Khayelitsha. So to the space he is neutral but to the culture and the greater community he isn't. – Participant 13 (facilitator/organiser)

This quote highlights the decision taken by a young white woman to hire an external facilitator to run a collaborative project, instead of doing it herself, a role that she had filled in the past. She recognised that, given her social position and foreignness to the context and culture, she would not be the right person for the job. Instead, she hired a young black male facilitator from a neighbouring township whose background, social status and multilingualism provided him with the skills and knowledge to better navigate and manage the collaboration. He was also a trained designer, well versed in her design process and language, which made him an ideal bridge. While it was hard for her to give up her position as a facilitator, she knew it was the right thing to do when she observed how easy it was for him to facilitate the workshop. She was so happy with the decision that she realised she had to be more intentional about selecting the right people to fit the different roles in cross-boundary collaborative design workshops.

While we can try to pay attention to our biases, triggers and natural tendencies, no one is perfect and it is impossible to be completely self-aware. Therefore, it is important that we listen to others when they provide us with constructive feedback regarding the impact of our behaviour. It is sometimes difficult to hear that, but crucial if we are to engage with everyone in respectful and equal ways.

The facilitator said to me “because you said you are uncomfortable about technology I think you should try first!” But I felt so embarrassed mostly because she kept pointing out my weaknesses in front of everyone and I was telling her I was uncomfortable about this, but she kept on just shoving it in my face. In the end, I withdrew and didn’t want to participate. It was as if she was unaware of her behaviour, or she didn’t want to listen to my feedback.
– Participant 29 (facilitator)

This quote highlights the facilitator’s lack of self-awareness and disregard for personal criticism. Not only did she embarrass the interviewee by publically highlighting her weaknesses, but continued to do so even after she was asked to stop. When the interviewee was asked why she thought the facilitator did not listen to her request, she told the researcher she thought that the facilitator, who was doing her master’s on participatory videoing, was more focused on proving that her new process worked and less interested in her own behaviour. This is a common challenge with designers and facilitators who can get caught up in testing processes and following methodologies, instead of paying attention to the group. Forcing participants to participate when they do not want to, results in shallow and superficial collaborations and does not serve the group or collaboration. Interviewees recommended that all stakeholders practice asking for and receiving personal feedback, even if it was hard to hear and made them feel uncomfortable, since it was an action that helped deepen their self-awareness and participation.

This section has focused on the importance of self-awareness and reflection by all stakeholders, particularly designers, in the pre-project phase. This internal awareness helps to improve the quality of external engagements and assists in developing generative relationships across social divides. However, it is important to note that the practice of self-awareness and reflection should not be limited to the pre-project phase, but should be an ongoing exercise that follows stakeholders into the design process.

The next internal practice important in this preliminary stage is that of shared control.

At every single workshop in my observation there was one group, sometimes out of 4 groups, sometimes out of 15, that built completely out of scale. So

they ignored the idea of scale completely and they felt that scale was not important, but the elements were important and they wanted enough space. They would build their people big enough so that they could make a proper swing set to show what they meant because they did not feel comfortable building that small. Then in the first workshop a designer came to me crying because he couldn't make them build in scale and I had to reassure him "don't stress about it, it's not your job to get them to build in scale. You are purely there as a facilitator. If they want to build totally out of scale, it's ok. It's about the process of what they are doing rather than the product". And I think people are not used to that environment. – Participant 16 (organiser)

For many, building out of scale is not something to cry about. However, it obviously held significance to the designer who was accustomed to doing projects in a certain manner. While he may have had someone to remind him to work collaboratively and focus on the process, not the product, it is up to all stakeholders to practice flexibility and compromise when working collaboratively. Not only is this a problem designers face, but it also affects community members or groups of people who are used to doing things in a certain way. They too can struggle to listen or agree with ideas from outsiders who wish to challenge embedded structures or patterns of behaviour. It is important that they also remain open and flexible in the design process. If they are too quick to shut down ideas that do not conform to the current ways of working, they may miss important innovations.

Be open-minded, be willing to talk and willing to see more. Don't get stuck by saying "this is how it's done in my community". Be willing to see outside your reality. Realise there are bigger things outside of your own community and that you can learn from new people and ways of working. – Participant 27 (designer/facilitator)

Listening to each other without judgment and commitment to equal collaboration by respecting the different opinions present in the group requires humility and compromise. It is not always easy to do but is one of the ways participants can practice shared control.

I think a lot of designers are used to just saying what they think the design solution should be. That is the modus operandi in the corporate world. They're not used to listening to people, who are the end users of the design, speaking about their experiences and what they think the design should look

like. What often happens with the designers is that they look at the problem and leap to the solution in their own heads before they've actually investigated the social context. Then when people are talking to them about their opinions, experiences and ideas they don't really listen because they already have a solution in their head. I saw this again and again in our co-design workshops. The professional designers had to listen to what end-users had to say, but they did not truly listen to them. – Participant 15 (designer/facilitator)

This resistance to compromise can also be linked to the fear of change and being forced to leave one's comfort zone. Participants need to be brave and open to new experiences within the pre-project phase as it allows for shared encounters, which help them to establish and strengthen generative relationships. The importance of shared experiences is discussed in depth in the next section.

Be willing to move out of your own comfort zone. Try new things like eating what other people are eating. People will be like "ooh wow, that's cool!" because we are still at the phase where we are learning about each other. – Participant 27 (designer/facilitator)

Not only is it important that participants practice moving out of their comfort zone and experience new things, it is critical that they hold a respectful mindset and an accommodating attitude with regard to different cultures and worldviews. For example, an Italian interviewee spoke about a collaborative project in which one of the stakeholders, an Iranian woman, asked that her husband accompany her during the design workshops because they were staying in another man's house, which culturally required her husband to be her chaperone. This practice was foreign to others in the group, but they allowed him to join since they recognised that it would be disrespectful and discriminatory to exclude her, based on the fact that they did not hold the same cultural practices. In the end, his skills as an engineer assisted the group and everyone was happy with the arrangement.

The table below concludes this section by highlighting the important internal actions and attitudes stakeholders should enact and reflect upon during the pre-project phase. All of these help to prepare stakeholders before they engage with one

another, ensuring that when they do, the quality of these interactions is respectful and generative.

Main elements	Key points
Self-awareness and reflection	Participants should start by understanding their internal biases and prejudices towards others before engaging with them, as this awareness helps participants to form generative relationships and they approach one another with an open and respectful manner.
	Participants should come into a collaborative process from a place of humility, given it provides fertile ground for the establishment of generative relationships. They can do so by entering a process or partnership from a place of learning and not teaching, which is an act that recognises the value and knowledge of others.
	Participants should identify their triggers upfront and think about ways they can manage these negative reactive behaviours before they occur in a process. This helps them to remain in control and ensure a process that is inclusive and safe for all.
	Participants should reflect on their natural tendencies before entering an engagement so that they can remain self-aware during the process and ensure that they do not hinder a partnership or collaborative process.
	Participants need to become comfortable asking for and receiving constructive feedback from others and become brave enough to make the changes suggested.
Shared control and respect	Participants need to prepare themselves to share control with others, remaining aware of their actions with regard to their ego and issues of dominance.
	Participants need to suspend their own ideas in order to fully listen to others without judgment and practice compromise during the collaborative process.
	Participants need to be brave and prepare themselves to move out of their comfort zone in order to try new things and strengthen their established relationships.
	Participants need to hold an open and accommodating attitude towards other cultural practices, beliefs and worldviews, even if they do not hold the same belief themselves.

4.2.2 External actions

The next section focuses on external actions that participants can take in order to establish generative relationships in the pre-project phase. These actions help to build trust and understanding between the disparate participants, which helps them to establish common ground and move into a cross-boundary collaborative process with ease.

Sharing personal stories, dreams, hopes, fears and desires with others is one of the first external activities that helps establish generative relationships. This process helps participants recognise their shared humanity and establish common ground.

I worked with a guy from Lavender Hill. At first I thought we were very different, because I was coming from Italy. But I then realised we completely have a same way of thinking in the sense of how to see the society. So he surprised me in what he was thinking about, sustainability and community. I was thinking the same, but he had a totally different background than me. So it was a nice. It looks like he was different from the rest of the community, but is similar to me. – Participant 25 (designer)

There is this traditional isiXhosa leader in Vrygrond I've become quite close to through the collaboration process. This man leads by doing. We find common ground because we both like humour, we both dislike state schools, we like football. We like all sorts of things, but mostly we like laughing with kids, so we do a whole bunch of workshops with kids through this non-profit that is connecting our two communities. – Participant 12 (facilitator/organiser)

I have a friend from Denmark who dropped out of school. He didn't drop out for the sake of being rebellious. His parents allowed him to pursue a career in music and be entrepreneurial. I come from Khayelitsha where you know that kind of situation where you have to study to get a job, but I never went that route. I was allowed to do the same. So we came to realise that we were pretty much similar, but grew up in two different parts of the world. – Participant 19 (Social entrepreneur)

From these quotes it can be seen that the interviewees were surprised and pleased to find out that those who they thought were very different to them in fact shared similar values, goals and ways of being. This realisation helped them to bond and build generative relationships. As a result, many interviewees spoke about the importance of incorporating formal and informal activities into the pre-project phase that help to provide disparate stakeholders with an opportunity to learn more about each other.

Popular formal activities included icebreakers, speed-dating games, drama and storytelling. These activities often employed the use of humour, fun and play. These elements encouraged people to open up and lower their guard. This helped level the power dynamics and provide a space for honest personal sharing.

Fun was at the centre of it all. When we invited people into the space the first thing we did was we got everyone to stand around in a circle and then we did this yelling exercise and it is very off-putting for people in the beginning. They would say “no, I don’t do that”, but we made sure everybody gets involved and that helps to change the energy in the room and now people feel at ease with each other and they begin to open up as friends. – Participant 7 (facilitator/organiser)

Humour helps you to establish relationships. It is important to make fun of yourself and others. Because it helps people to say ok, take off the professional jacket and play and become more relatable to each other. – Participant 2 (designer/facilitator)

Often you will find people in government and big business do not have time for games. “What is this now? This is something children do. This is not something I do.” So there is a lot of resistance at first. Once they break through that and everyone is having fun you immediately get down to the personal level and that friendship level, that space where friendship comes from and so you inadvertently have a more successful chance of getting to know the real person inside. – Participant 32 (user/facilitator)

Fun and play are powerful ways to ensure open and authentic sharing that helps stakeholders establish common ground and generative relationships. However, it can often be an intimidating experience, especially when participants do not know each other, or if they view these activities as childish, disrespectful and beneath them. It is important to first create a safe space and appropriate these activities to suit the group and culture. How this helps to encourage participants to move out of their comfort zones will be discussed in subsequent sections.

So I was asking the mamas and the papas “let’s go outside and play a game” and I know they will complain and say “What? Play a game?” And I am like “ya I will wait for you guys outside”, so that they cannot stop me and their curiosity will make them follow. I know that some people will not want to play games because they are older, but I know that they will enjoy it. So it’s about pushing them out of their comfort zone, but not too far so that they will leave. It’s a fine balance. – Participant 29 (facilitator)

While it is widely known that formal personal-sharing activities help to establish relationships, the researcher was surprised to learn that informal activities help as much if not more when establishing generative relationships. Examples of these types

of engagements included sharing meals, coffee breaks, after-work drinks, car rides and hikes.

Myself and those that collaborated with me would cook together a lot and that was an important part we all felt really strongly about that, so we would eat together and had the most amazing meals and really became friends. This was an important part of our relationship. - Participant 32 (user/facilitator)

I met this Swedish guy and we had a good connection. He liked climbing, and my girlfriend at the time liked climbing and he came with us. Half of the time he would just rock up to Khayelitsha on a Sunday. He'd come through to chill in a shack with me and just relax. It wasn't fake, he just wanted to hang with me. And he was 100% authentic in every sense. – Participant 19 (social entrepreneur)

My favourite moment in the collaboration was the guy who gave us a lift to the design workshops and the relationship that we established. We had so much in common through our work. I actually met his brother before and we spoke about him and our interest in cars. So we formed a real friendship during the car rides, it was the most beautiful journey. – Participant 14 (user/facilitator)

The researcher speculated that the power of these informal interactions came from the fact that these acts of sharing were genuine and not enforced by a process or facilitator. The sincerity of the stakeholder's interactions with one another was clear; they were actually interested in learning about each other.

Sometimes with other people when you have coffee other leaders will go aside and separate themselves. But the outside designers didn't do that, they wanted to join us and drink coffee with us. One of the designers actually stood up and served the young community members with tea and coffee. This showed us that they believed we were all equal and they wanted to be our friends. So from there we had that bond that clicked and now we have that click until today. – Participant 18 (user)

This quote helps to illustrate this dynamic, as the act of sharing coffee demonstrated to the community that the outside designers saw them as equals and were genuinely interested in forming generative relationships with them. This left a positive impression on the local stakeholders and helped to establish a bond they still have.

Sharing our authentic selves with others can be a scary process, especially when we are not sure how we will be received. Yet there is something very powerful about witnessing this vulnerability that can resonate with others in a way that positively shifts their interactions and relationships with us.

We started with handshakes, but we left with hugs... My friend told me don't hug the racist, and I just kind of felt that even though we are the most opposite people and have very different belief systems, we are still people at the end of the day. We need to find common ground if we are to work together towards our joint goal. I put aside my differences and reached out to him with honesty and spoke from my heart and revealed my true self to him. It was scary. I didn't know how he would react and if I would be met with anger. But he did not respond negatively and we spoke from the heart and we were completely truthful, even though we were scared it might cause eruption... To my surprise our conflict that had been going on for so long got resolved in that meeting and I even got a gift of olive oil from one of his friends. I was amazed at the power of telling our personal stories and listening to each other had on resolving the conflict. – Participant 32 (user/facilitator)

The following quote speaks to the power of vulnerability and personal sharing as an effective tool to establish common ground and resolve conflict within a cross-boundary collaboration. This story describes the struggle of a young activist when working with an older farmer in a food sovereignty organisation. They regularly clashed due to their social positioning, personal biases and different beliefs regarding land reform. However, they shared a common goal of food sovereignty. In order for them to work together they needed to resolve their differences and establish common ground. In an attempt to reconcile, the activist arranged a face-to-face meeting with the farmer. Her strategy was to share with him her personal story and encourage him to do the same. The engagement was not easy, as she was scared and worried about her mental and physical safety. However, she bravely followed through and to her surprise he listened to what she had to say and told her his story. The process was more successful than she had anticipated, demonstrated by the fact that at the start of the meeting he could not make eye contact with her, but by the end he gave her a hug. Listening to each other's stories, fears and hopes helped them to gain empathy and understanding of one another, which assisted the process of reconciliation and the establishment of common ground.

One of the reasons this process is powerful is that the act of listening to someone's story and telling your own, helps people to recognise their shared humanity. When one's story is heard and respected by another, it helps to build and strengthen trust, which is important in a country of distrust and animosity across social divides. This is a challenge that many interviewees faced when they worked with communities jaded by past experiences and thus highly distrustful of any outsider's intentions and agendas.

In the third workshop I experienced the same type of conflict. People would not listen to me or allow me to facilitate the workshop. I decided to take hold of the process and I did a lot of establishing myself before I started the process. I told the group this is who I am, this is where I'm from and this is what I've done and this is why I've been chosen to do this workshop. Usually when I'm doing co-design I don't do status stuff. I don't try to establish my own credibility because to me it's almost counter-intuitive. What I actually want is people to perceive me as being equal to them. But in that situation I thought it was important because people here pushing up against this and saying "why are you here? Who are you?" So then we did that and to my surprise it really helped people to trust me and work with me. – Participant 15 (designer/facilitator)

In this quote, the interviewee discusses how out of desperation she decided to share her personal story with a community highly distrustful of her intentions or abilities. Normally she would not have done this, but it was the only thing she could think of at the time. To her surprise, opening up and sharing her story resonated with the group and they began to cooperate with her. While they were still disinterested in the project, mostly due to the fact that it was a government initiative, they respected her for being vulnerable and sharing her story, as it allowed them to see beyond their prejudices and witness her humanity. As a second interviewee put it, people need to see that you are human and not just ticking boxes. Why should they share their authentic selves with you if you are not willing to be vulnerable with them?

People need to feel that you are human and that you are not just ticking boxes. So when I start I share a bit about myself so people can get to know me. It is kind of like a bargaining process, especially when you are meeting new people and you want to build trust with them. – Participant 29 (facilitator)

Given that many social issues in South Africa are linked to the legacy of colonialism and apartheid, storytelling and sharing in the pre-project phase can also act as a healing process for many communities. Without acknowledging the history of a space and allowing stakeholders to express their pain and anger around a social issue, organisers run the risk of ignoring the “elephant in the room”, which can bubble under the surface and erupt in destructive and negative ways, limiting the development of generative relationships and resulting in challenging engagements. Instead, if it is incorporated into the personal sharing process then participants feel heard and their pain acknowledged, which puts people at rest and educates others regarding the social dynamics at play.

It's one of the oldest communities and has a long history of struggle. They are fighters, they're defiant that is who they are. It was naïve of us to think that we could just go in there and start solving problems without acknowledging that history and letting it come out. So the way we managed it was that we allowed people to talk about stuff in the storytelling time. You have to acknowledge that there's a big problem in this country and that our context will always play mischief with the process. People are angry and need a space to vent their anger, and you need to give it to them in a workshop. I learnt that some communities are much harder to work in than others because they are angrier. – Participant 14 (user/facilitator)

We were dealing with a lot of legacy, so people don't come into the room saying “ok I have been asking the government to fix this park for five years”, people came to the room and started “in 1950 my family came here with nothing and squatted on this land”. There is no undoing 50 years of craziness and suffering. So that is what we had to build on when we wanted to redesign these spaces and parks. We had to acknowledge the painful past. – Participant 16 (organiser)

Storytelling and sharing is not the only way to form relationships and establish common ground. This can also be done through cultural exchanges, such as visiting each other's communities, trying different foods and learning different languages.

We thought our community was divided but by visiting each other's area we discovered that no, we are one. Because we are faced with the similar predicament, we suffer the same thing. We feel the anger and passion for keeping our community for all of us. In the one community we saw poaching and spoke to the poachers, and they said we are not stopping poaching

because we deserve to have income. So I realise that it is not only us in the township who are struggling, the other communities are also struggling. And then I realised we have a similar interests and dependency in the life of the sea. – Participant 1 (user)

Through the realisation that they face similar challenges and value similar things, two communities divided by race began to establish common ground and empathy for one another. This was facilitated by guided tours of each other's communities. These types of community exchanges, commonly implemented in the pre-project phase, serve two purposes. The first is they can help to reveal important information about the social and environmental landscape, which can be used to inform the design outcome. Second, these type of exchanges help to assist disparate stakeholders gain empathy and understanding, as they learn about each other's culture and communities. These community exchanges help to improve the collaborative process in the design phase.

In a different project, the stakeholders decided that instead of trying to find similarities they would design a cultural exchange that would emphasise their differences.

Two Swedish girls who came to South Africa were interested in food design. They brought some ingredients from Sweden that you can't find anywhere, like street food kind of ingredients and they made this beautiful packaging. When you open it up there were prompts, like do you love this or hate this? What does this remind you of? Does this remind you of anything from your childhood? All the prompts were about creating conversation. They brought all this weird stuff like Reindeer cheese with pieces of meat inside rolled up in a wrap. We took a taxi to this informal settlement and met a local guide and we started going on this mission of his friends' favourite street food places. They would swap street food for street food and ask each other questions about it. It became a conversation piece, like a probe to understand each other through food. It was often surprising, people were like "oh my god, what is this? This is like this weird cheese meat stuff". And they were given raw livers from the side of the road and the lamb. Seeing the blood in the buckets, the food almost became a platform to open up dialogue, which was cool. It was very successful and we learned a lot about each other through the process. – Participant 6 (designer/facilitator)

While the topic of food provided common ground, the different and strange foods acted as a catalyst for discussion around culture and one's personal story. The

informality and playfulness of the activity also helped catch participants off guard and open up to one another. The act itself paid equal respect to both cultures and acted as a bridge, helping disparate individuals connect with one another. It is also interesting to note that, as the students were in the country for a short time, the aim of the project was to build relationships with the intention that should they return, and the established connections could help them develop something more concrete. This again speaks to the importance of building generative relationships before starting to address social challenges in a collaborative process.

A second way to establish generative relationships is through mutual learning and skills exchange.

The idea is that the hearing person is able to transfer their skills to the deaf individual who would also be able to teach the hearing person sign language... So the guy who is deaf who is learning a skill is the guy who is teaching the hearing person a skill. So that it is a mutual and direct exchange. If a tradesman is going to make his skill more transferable, he has to listen to the deaf guy and that started to build a very good relationship. – Participant 4 (social entrepreneur)

This direct transferral of skills provided each stakeholder with a platform to share their skills, learn something new and feel valued. The activity also helped to level the playing field and switch the power dynamics.

The previous section highlighted the issue of arrogance and social bias when stakeholders come into a project or community from a place of teaching rather than learning. In the story above most people would assume that the deaf individuals had everything to learn and nothing to teach, especially as we live in an ablest world, in which sign language is seen as less valuable than trade skills. However, the tradesmen had everything to gain from learning sign language as they found it helped them communicate with more people and offered them a personal growth experience. The act of teaching provided the deaf individuals an opportunity to demonstrate their expertise and feel valued by their peers.

In a project around wastewater management in an informal settlement, formally trained engineers asked to see how local participants worked to manage grey water in their community. They were impressed with the innovative makeshift drainage system that had been built, and instead of replacing it with a new solution they worked together to upgrade the current system.

The engineers noticed that the community members had laid pipes in the ground with disposal points made from buckets with a wire mesh on top. The engineers were excited about that, so they were like “we can build on that, we can use what is already there and turn it into an ecological system”. So they did. Then we had a workshop to demonstrate this. One of the engineers got some buckets at home and cut some pipes and he did exactly what it would be just to show, to get people to envision, what it would be like, and how it would connect to the plants system. Maybe that was one of the reasons why there is continuous interest in this project, because there is an existing system that is been built on. That’s what biomimicry is about. It’s about using what already exists. – Participant 5 (Facilitator / organizer)

Working with existing local innovations instead of starting from scratch demonstrated an act of mutual learning and respect, helping to level power dynamics and create a safe space where everyone could feel valued. Again, this speaks to the importance of coming from a place of learning and sharing instead of knowing, which helps to demonstrate one’s commitment to building generative relationships.

Financial investment by outside stakeholders in local businesses and individuals was another great way for stakeholders to establish trust and build relationships in the pre-project phase. This included the hiring of local facilitators or designers, using local catering for food, employing local tour guides for external excursions and making use of local transport.

I said to the other organiser we need to support local businesses. So I said why don’t we get a local caterer? I asked a local tour guide if he knew anyone that could do the job. And he said “yeah, I know this lady”. And he did. She messaged me and she was serious about her business. Then when we did our site visit we hired the same local tour guide who took us through the township. I’m paying him for his services, also the guy who has a taxi in the informal settlement who brought people to the meeting. So it’s about like not doing everything for free. You’ve got to value people’s time and skills. It makes a big difference to the way people start to collaborate with you in the project,

as they see that you are serious about investing in their community. –
Participant 5 (facilitator/organiser)

This interviewee mentions that the power of valuing the time and skills of others can have a positive effect on the design collaboration, as local stakeholders see that you are committed to investing in their community not exploiting them. This was evident in a different collaborative project in which an external facilitator was struggling to gain the trust of the local participants. In desperation, she decided to hire a local caterer who was more expensive than the one she normally used. However, she hoped that this would demonstrate her commitment to the community, and it worked. Although her action was small, it left an impact on the stakeholders and they began to trust her intentions to help them tackle difficult social issues they faced. Financial investment is also a quick-win in a collaborative design project that can take many years to be implemented and benefit a community.

The table below concludes this section by underlining important external actions stakeholders can engage in during the pre-project phase that will assist them in establishing generative relationships and help to support future cross-boundary collaborative design engagements.

Main elements	Key points
Personal sharing	Participants can share personal stories and internal value systems with one another through formal and informal activities, which helps to establish trust, empathy and cultural understanding, resulting in the establishment of generative relationships.
	Vulnerability and authentic sharing can help disparate stakeholders resolve conflicts, build trust and establish common ground.
	Sharing personal stories around the legacy and history of a space, and how it affects the social issues, before starting a design process can help to heal the pain people harbour around the topic and prevent it from bubbling up in a negative way during the design collaboration. It also provides outside stakeholders with insight regarding the social and political landscape.
	Engaging in cultural exchanges, visiting each other's communities, sharing traditions and learning new languages helps participants to learn about each other and form generative relationships.
Mutual learning	Teaching and learning from others helps to level the power dynamics and strengthen generative relationships.

	Supporting and amplifying existing ideas help to pay respect to different forms of knowledge and ensure the design idea is more sustainable.
Financial investments	Foreign designers can demonstrate their commitment to local stakeholders by financially investing in their community, which helps to build trust and generative relationships.

4.2.3 Connectors and bridges

Internal and external activities can help to bridge the social divides and establish relationships between disparate stakeholders in the pre-project phase. Other ways to do this include the identification and employment of individuals, organisations, or objects that act as “bridges”, helping to connect disparate stakeholders. They are able to do this because they are often positioned in multiple worlds and move between them with ease. Their roles include the mobilisation of participants, connecting stakeholders and mediating these engagements when they meet.

When discussing these bridging stakeholders, the interviewees focused mostly on the “community mobiliser” and “champion”. These stakeholders were often local NPOs embedded in the context, or influential people from the community. They were able to use their social capital and legitimacy within the space to encourage participation on behalf of outside stakeholders, while also linking the different stakeholders. They also assisted in the preparation and education of the stakeholders before they met. This included helping outside designers understand local social protocols and nuanced aspects of the culture and context. They also supported local stakeholders to better understand the project and commitments it would require of them, as well as to clarify any inaccurate expectations with regard to outcomes. This preparation was vital in ensuring that once they met they would be able to collaborate with ease, while being respectful of each other’s culture and able to build strong and robust generative relationships.

We always work through a local NPO... We work with them because they have a strong network of community mobilisers through their branch structures and they have leaders in the community that are responsible for branch areas. They have trained community mobilisers that get people educated and empowered. We felt they had the right kind of network and skills to assist us in ensuring that people were actively part of the process, helping to get them

to meetings and explaining what the project was about. In fact, it was good, because it was a skillset that we didn't have. They helped us to connect to the right people on the ground and to strengthen our relationships. – Participant 28 (facilitator)

We work with a social activist movement and they are the key. They do the initial mobilisation for our organisation. They mobilise the powerful stakeholders and want to know who the leaders in this community are and they call a general meeting and prepare stakeholders for our arrival. Then we come in from the NGOs side and sit down with the community and hope that things should be easier during the design phase. Then I talk about challenges looking at the solution with them. – Participant 27 (designer/facilitator)

I met a local leader and he liked my project idea. He took it by the horns and said we are going to make this happen. Without that I don't think we would have had the kind of local participation we had. So I think he was successful because he has worked with other organisations from outside the township and has served as a conduit between outsiders and people in the township. It is like becoming a mediator between two worlds. Meeting him was a stroke of luck. We realised we needed to look for those individuals. So going forward we will hire someone that helps us as the community liaison, knocking on people's doors and all the churches, who speaks the language and we know they will be the key for deep participation. – Participant 17 (organiser)

There is often a community champion, someone who arises who wants to take the lead and is a person who is the connection between the community and our work. They also bring an understanding of some of the subtleties. For example, the subtle differences in culture in how words or some expressions in language could mean something completely harmless in English, yet from a isiXhosa speaker perspective it could be an insult. There are some really fine lines that we could never assume and it is great to have that level of honesty from people in the team who say "hey what you just said was really nasty thing" even though you didn't mean it. – Participant 13 (facilitator/organiser)

These quotes highlight the importance of identifying bridging partners in the pre-project phase that can help stakeholders build generative relationships and prepare for the upcoming design workshops. Public endorsement of a proposed project by a local partner also provides outside stakeholders with legitimacy and can speed up the process of building trust. This is not to say that these mobilisers would endorse anything; they only did so when they genuinely believed the project would benefit their community. Thus, they also sometimes acted as gatekeepers, protecting local

stakeholders from exploitative initiatives by outside individuals or organisations.

More about the role of a “gatekeeper” will be discussed in subsequent sections.

Before the event we had to go to the disaster management officer based in the informal settlement and ask if we could hold our event and close off some of the roads. He was like “no, you can’t do that, it is not possible”. This was eight days before the event. He lived there and didn’t see any benefit to the event. To him it was a problem and he was determined to block it because he was scared they could have hundreds of other people from townships coming in cars not wanting to be respectful. So we were in panic mode and spoke to the two main guys in our team who were from the community and asked if they could talk with him. They managed to get him to realise that the community was fully behind the event. This was important because they could convince the officer because they were from the community. – Participant 17 (organiser)

The interviewee was not able to persuade the disaster management officer that the event she was organising would not end in chaos. This was mostly due to the fact that she was not from the area. She asked two of her colleagues who lived in the community to speak to the officer and obtain a permit. They said the same things she had said, but were got the permit because the officer felt they could speak with authority regarding what might happen on the day. This interaction was only possible through their already established authentic relationship, so they did not hesitate to help her as they supported her vision and understood the benefit the event would bring to their community.

A facilitator can also be described as another stakeholder who plays the role of a “bridge”, with their primary role being to help stakeholders move through the process with ease. Many interviewees spoke about how they spent considerable time choosing the right person to facilitate their process, based on the diversity of the stakeholder group and topic under discussion.

A second type of “bridge” is that of a translator. This is most relevant in a South African context, where there are many different indigenous and foreign languages. A translator ensures that participants can communicate across social divides and participate equally in a cross-boundary collaborative engagement.

A translator is imperative in a diverse design project. It is also useful if the translator has a background in design, so if I use “designerly” words she can translate that into general terms, because we often forget that language isn’t just a cultural language, but also to do with your profession, and professional language can be a barrier. If I say “we’re going to have a brainstorm” people are like “what the hell is that?”... “It sounds like a headache”. A translator helps explain the process to community members then feeds back to the community, which is very useful. – Participant 23 (designer/facilitator)

Professionals may forget that some words are industry-specific jargon and can pose a barrier to collaboration. While it is important that these stakeholders remain self-aware and limit the use of these words, a translator with a background in design can help to bridge this professional divide.

Moving beyond people, some of the most unexpected and interesting bridges came in the form of objects.

We lost our previous electrical source and had to find another. So we went across the street from the square to visit this man who owns this store to ask if we could use his electricity. He is from Ethiopia and it was interesting to see the shift in the ease of communication because when I had to approach him I realised I hadn’t spoken to him much. When we started to plug in to his electricity and pay him it was interesting to see who felt comfortable to come and join our project, the city square activation. All of a sudden there was a whole new group of people that felt invested and felt they had ownership and a right to be in that space. At first mainly the storekeeper’s friends and family would come and then other people around that would come to the square. And it was through the cord that we were connected. When we crossed over the street in that space of vulnerability people were happy that we had come to engage them. I think they were just looking for an excuse to be part of the event. People would just go plug it in and curl the electrical cord at the end. I would find it neatly packed up in the corner. I think the reason these people had not joined before is that the police often target them. As much as the police have done good work in the city some of the work they do alienates a lot of people that don’t fit in with the urban elite. Because their job is to make sure that people are not loitering and it was interesting to see that with a lot of people from other African countries many would not congregate on the square for different reasons. But the way that the police law informants would see that kind of gathering, a lot of black males in a space they consider a dangerous situation. But when we come (to the square activation) and we have a group of a lot of urban elites and we sit together, even if it was young

black hipsters in the space that is acceptable by the police and they would not chase us away. So it points to class and perception and all these things. But that was a hindrance for us because we wanted all different people to congregate in that space. I think by helping with the cord these African nationals were able to point to something and say I am part of this event and feel less scared to participate. – Participant 7 (facilitator/organiser)

This story is a good example of how a seemingly ordinary object such as an electrical cord helped to bridge divides between two different groups of people in a public space. The act of asking for electricity was the first step in connecting the different individuals and the beginning of a mutually beneficial relationship. In addition to a financial benefit, the cord offered the storekeeper's friends and family a sense of purpose and belonging in a space that they were normally excluded from because of prejudices. The tasks of setting up and packing away reduced anxiety about congregating in a public space. The organiser had not realised that this fear was one of the main reasons preventing this group of African nationals from participating in her activation, as it was not something that her social group of urban elites usually experienced. It was only through her relationship with the storekeeper and his friends that she began to understand how best to make her event more inclusive and a safe space for all who attended. Over time, the storekeeper and his friends gave her suggestions that could help others feel welcome in the space. These included playing different African music and serving different traditional foods at the event. This was helpful and increased participation. She came to realise that only through the establishment of this relationship was she able to draw in different groups of people present in the space but resistant to participate in her event. She was amazed at the impact the electrical cord had on shaping her event and connecting her with different people.

The next story involved a poster and how it helped outside stakeholders and a community turn a corner in a difficult relationship.

The most exciting moment was the development of a poster. We had been meeting weekly in this township. We had a small meeting with key people and then another meeting with a large group of people, and then we were entering the third meeting and there was a sense of animosity. Some of the key people were turning against us and being critical and negative about our

proposed initiative and the concept and what we were trying to do and how we were trying to do it. There was a negative vibe so we were going into meeting number three with a lot of apprehension. We had a conversation about a poster and found a talented graphic designer based in that township. She had been in all the meetings. She put together a draft. I remember the day we arrived at the meeting we were nervous. I could see that people were not that interested. There was not a lot of participation and I said “well we have been developing this poster. I want to show the poster”. So the designer showed the poster and it was magical what happened then because as soon as we put it up people were like “oh, this is kind of cool” and you could see people’s faces shifting. All of a sudden, it was about the poster, it wasn’t about all the vibes. It turned not just the meeting but the process of the planning in the township, because it became about the message about how we wanted to portray the township to the rest of Cape Town, the kind of words we were using, the kind of images. It was unintentional in some ways, but I think it was the fact that we were all in a room and it was a difficult conversation in the middle, so it was all very much about perception, about fear, about a lack of knowledge, lack of trust, bad experiences with similar initiatives, and that poster was the catalyst for conversations. We didn’t intend it to be but going forward the poster is going to be that tool. – Participant 17 (organiser)

In this story, the poster acted as a catalyst for conversation, helping the different stakeholders hold generative discussions around difficult and painful topics that had begun to emerge in the meetings. It also served as an object of inspiration and unity, helping to illustrate the shared vision of the two groups, something that had not come through in the discussions alone. While the poster acted as a bridge, its impact was made possible through the graphic designer and her understanding of both stakeholders.

I think we were very lucky that she is from Langa, but she had worked for a lot of different people in Cape Town. She had a sense of what would appeal to an audience in the CBD for lack of a better turn, the hipster crowd. But communicating something that was important to the community.
– Participant 17 (organiser)

The interviewee said that during that session she realised that the poster symbolised a commitment by her organisation to the community members. It was a guarantee that the event would happen, which was something that the community was sceptical about, given the broken promises made by outsiders in the past. Similar to the previous interviewee, this interviewee had not anticipated the positive impact a poster would have on the collaborative design of the event. Its success prompted her

to integrate a poster activity into her future processes, with the hope that it will contribute to the same sense of participation and belonging.

The table below concludes this section by highlighting different types of connectors that can help to bridge the social divides in the design phase. It is important that organisers identify and implement, or establish relationships, with these connectors in the pre-project phase, helping to ensure the effectiveness of future cross-boundary collaborative design engagements.

Table 6. The key points of connectors and bridges	
Main elements	Key points
Organisation or individual as bridge	Community mobilisers or champions: These are typically local organisations embedded in the context, or community leaders. They help to encourage and prepare local stakeholders to participate in design collaborations, reveal the local social protocols for the benefit of the outside stakeholders, mediate between the two groups and speed up the relationship-building process
	Facilitators: They help to establish a safe space, mediate conflict and ensure that everyone participates equally
	Translators: They help different stakeholders communicate across the language divides and clarify any industry jargon
Object as bridge	Objects can help bring people together, establish common ground and articulate a shared vision

4.3 Maintaining relationships

This next section will focus on important elements that should be discussed and put in place by organisers during the pre-project phase to ensure the maintenance of newly formed relationships. This will help to support their growth and prevent them from disintegrating over time. They include: group culture and safe space; aligning expectations and timeliness; and ethics.

4.3.1 Group culture and safe space

A group culture can be described as a set of values and behaviours, articulated collectively by stakeholders before engaging in a collaborative design process or design workshop. This activity is crucial to the success of cross-boundary

collaborations, as it helps to reveal the ways people define participation and highlights potential cultural clashes before starting. This contributes to the development of a safe space and the maintenance of relationships during the design phase.

I always start a workshop with a discussion around how do we want to be treated in this space. I ask questions like what does respect mean? What is respect mean to a Xhosa person? What is respect for a person from Zimbabwe? What is respect when you are dealing with an older person? Respect means different things to different people. For example, when I spoke to my grandmother and looked her in the eye she would say that I was being disrespectful, but then I get to school and my white teacher says “look me in the eye to show me that you are honest and respectful”. So those dynamics have to be figured out in the beginning so we can establish what is respect. We have to ask the questions. What does it mean to respect someone else or what does it mean for you to feel respected? That is when you collect all these things and you write them up and put them in the room so that everybody knows that every time we come into this space this is who I am and this is how we act. Then when there is a culture clash, for example between a mama and young man and the mama will always be like “hey wena go fetch me that, hey wena do this and that”. But as a facilitator I want everyone to feel that they have a space and feel comfortable. So I say to the mama “so mama when you want him to go get you that, how do you want to say it?”, and “is he allowed to ask you to get you something?” So then there is like negotiating those interactions. Is it allowed, is it not allowed? And he may say to me but it is not in my culture to send an older person to do something, then it is understood. It is fine and we can find a way to work around this so the young man is also comfortable. – Participant 29 (facilitator)

In this story, one can see different cultural behaviours and understandings for the same values, in this case respect. The importance of exploring these concepts with the group before starting a design engagement is highlighted, especially if stakeholders are from disparate backgrounds. These types of discussions are crucial as they help identify, negotiate and resolve cultural differences in an attempt to establish common ground and provide stakeholders with an opportunity to collectively agree upon “rules of engagement”, which can be implemented in the design phase.

The second reason for articulating and establishing a group culture before starting a design process is that it helps to hold people responsible for their actions should they

negate what was discussed. In many projects, the interviewees wrote up and displayed the group's established "culture" on a wall, making it possible for the facilitator and other stakeholders to reference it throughout the engagement, in order to establish boundaries and hold people accountable for their actions.

So people were really moaning and I could feel the anger levels were getting high and the process was going out of control. So I had to remind the people, taking them back to the original culture we set.... Having a script that people could go back to is quite a powerful way, as a facilitator, to pull back the process and say let's go back to page one and go over the rules again and the culture we set. You emphasise the rules but then mention, "we're not here to name and blame, we're here to build together." – Participant 15 (designer/facilitator)

This quote not only refers to an established culture set by a group and how it has helped to move a process forward, but also points to the role of the facilitator in holding the space and helping the participants navigate the process. In many projects, a facilitator traditionally initiates the creation and application of a group culture. However, for it to be successful it must be articulated and adopted by the group, and not enforced.

In addition to the development of a group culture, it is equally important to establish a safe space in the pre-project phase. A safe space can be described as an environment in which all participants feel relaxed, equal and free to express their opinion without fear of being judged, discriminated against, harassed or attacked. The establishment of this space is critical to the success of cross-boundary collaborative design, as it helps to ensure authentic dialogues and encourages stakeholders to be vulnerable with one another. It provides them with a space in which they can ask awkward or embarrassing questions with regard to cultural differences they do not understand. That then helps to deepen their cultural understanding, empathy and relationships with one another.

For example, in the quote below, the interviewee spoke about the difficulty she faced when working with people from China. Her Chinese colleagues, now based in Italy, found it equally difficult to decode the Italian or European way of working. However,

they had both felt too awkward to ask clarifying questions with regard to these differences. Only through the establishment of a safe space and the development of a trusting relationship were they able to articulate sensitive cultural questions without fear of humiliation or offending others. It helped them to better understand each other and improve their future collaborations.

There are lots of Chinese students and professors that come to Europe. They grow up in a society in which you have to do what they tell you to do. The state tells you to do that, you have to do that. Sometimes it is really hard for Europeans to understand this mentality, and for me it is really hard to work with Chinese people... But I have a Chinese friend and he helps me understand. I tell him my point of view and he tells me his point of view and we understand. Sometimes he says, “thank you my friend, because I never thought about that, because I never had the possibility. Because nobody told me this before and I was too scared to ask it of people”. – Participant 25 (designer)

One of the first ways a safe space can be achieved in a design process is through the efforts of a facilitator because their primary role is to mediate situations and ensure that all stakeholders feel safe and heard. Facilitators rely on their ability to put people at ease and build trusting relationships. Body language, tone of voice and the words they use contribute to how they are received by the group and the space they create.

As a facilitator, I never speak English to a Xhosa group of people even though I am Zulu and my Xhosa is not so good, I think that would alienate me and break their trust with me. So I speak in Zulu and people understand. I never try to speak Xhosa because I know I pronounce things wrong and that would be disrespectful. Language is important to me as it helps me to become accepted and trusted by a group. – Participant 29 (facilitator)

As a facilitator you need to be very intuitive to the people in the room, and not be dismissive if someone says something that is not useful to the process. Because if you feel your voice has been dismissed, it’s unlikely you will want to participate again, as you may feel undervalued. – Participant 23 (designer/facilitator)

Selecting the right facilitator for a cross-boundary collaborative design project is an important process, one that should be considered in the pre-project phase. It is important to select someone who is “neutral” and able to move between the different stakeholders’ worlds with ease, ensuring everyone feels comfortable to

participate in the process. A skilled facilitator will ensure that they do not favour, or are perceived to favour, one stakeholder over another, given that this will compromise the safety of the space, as some stakeholders may feel neglected and dismissed. This is what this facilitator grappled with as she navigated a personal conflict between two stakeholders in a design process.

So there was a conflict between two participants, something that had happened outside the workshop and they wanted me to get involved. I knew that if I got involved it would compromise my “neutrality” as a facilitator. I knew that if I had to sit down with them I would be forced to say to them “who is wrong and who is right?”. That is what they would have expected from me. So I knew that by getting involved I was going to have to make one of the participants the good guy and the other the bad guy. And I am not going to do that because they both think that they are right and I will upset one of them and this will affect my position in the group. I told them they need to find a different facilitator to sort out the problem and then once it was done we could move on with the design process. – Participant 29 (facilitator)

A second way to ensure the creation of a safe space is to hold a discussion regarding the use of personal information before starting a design workshop. A discussion like this encourages and allows participants to ask clarifying questions, providing the organisers and facilitator with an opportunity to clarify how the stakeholders’ personal information will be handled. In addition, stakeholders as a group should be reminded to be respectful and mindful of any confidential information that may be shared in the process and ensure that no one is made to feel unsafe or concerned that their participation may negatively affect them in the process or outside of it.

Safe spaces are important. We’ve had some dialogues where we’ve said “none of this will be tweeted or published, but we’ll collect the best ideas from this workshop, and circulate it for approval, and then share it”. This helps to build trust and improves the design process. – Participant 24 (designer/facilitator)

In some cases, a safe space may not be possible to achieve, given the controversial nature of a topic, or the types of stakeholders involved in a project. Placing these stakeholders in a room together would not only be irresponsible and put their well-being at risk, but would also produce a process that is superficial and limited as participants may be fearful of speaking or participating in the presence of others. The

only option in this instance would be to separate the group and use activities and processes that link them together.

We worked with elders and youth from a community around alcohol consumption and safety. We chose to separate the groups because we couldn't even bring them together at any point, because you are talking about alcohol and the elders don't really want to know how young girls drink in the community. So even though we fed the information back to all the groups that were involved we couldn't put them in the same room. We couldn't even say people's names because we wanted to protect them from judgment. – Participant 29 (facilitator)

Then in the next workshop we brought young men and young women drinkers and non-drinkers together to talk about safety. Again, I insisted that we separate the group in terms of gender and have a facilitation team that is all female. I thought that if we are talking to women in a context of violence or safety then some things are bound to come up that someone feels better talking to a woman about, and we wanted the space to feel safe. We also had an all-male facilitation team, as I knew it was also hard for young men to open up about their feelings of vulnerability in front of women, given our macho culture. – Participant 29 (facilitator)

These quotes speak to the interviewee's awareness of the controversial nature of the topic and social dynamics present in the community, which led to her decision to separate the groups during the design phase in order to ensure their safety and allow them to participate freely. She ensured that only female facilitators worked with the young girls and male facilitators with the boys in the gender-based violence workshops, ensuring that they felt comfortable talking about difficult topics and experiences with their facilitators. From past experience she knew this would have a positive impact on their participation.

A second collaborative design project faced a similar challenge when working with police officers and illegal shebeen owners in order to improve the safety of these establishments. By the very nature of the illegalities, it was not possible to bring the two groups together. In order to address this problem, the organisation used a bridging activity called the Johari window and established a participatory approach.

So we used the Johari window in order to get the views of the police. The Johari window is basically a window with four blocks. The first block is where you are talking to the things that are known to the police and known to the shebeeners, things like you know you shouldn't be trading. And then this block is what the cops know and what the shebeeners don't know. And this is what the shebeeners know and the cops don't know. And this is what everybody does not know. We don't know if the legislation will ever change to accommodate shebeens. So some of the things that were coming out were too sensitive for the groups to be put into one room. What worked better was to do the Johari window with the police, then do it with the shebeeners. Take this Johari window and show them. Once all the tempers have flared and calmed down they may be ready to meet. – Participant 21 (facilitator)

This activity was a great way to connect participants across the physical divide in safe and generative ways, which is something organisers need to consider before starting an engagement should they feel it would be risky or inappropriate to bring disparate stakeholders together. It is important that organisers use the pre-project phase to understand the local social protocols and dynamics of a space, in order to identify any elements that may affect the participants' participation and safety. One way to do so is to connect and partner with local organisations and people who can help to flag controversial topics or stakeholder relationships and prevent ignorant outside stakeholders from damaging social systems or placing participants in mental or physical danger.

Something that needs to be considered in the pre-project phase when organisers plan the upcoming design process is the physical space of a design workshop and how it can impact the way participants feel, participate and relate to one another.

Some people don't feel invited into the space and that is a physiological thing left over from apartheid and how we have been for a long time. During apartheid people were told you are not allowed in the CBD, you need to have this kind of documentation if you want to be here, there is a curfew if you are still in town at this time, you are going to get into trouble. So that stuff is still there is still there. So by 5 o'clock or 6 o'clock, even starting at 3, you can see a mass exodus of cheap labour leaving the CBD, because people were removed from the city and now can't afford to live there. That is still something that happens today. The city only caters for urban elites and may alienate other groups of people. This is something you have to consider if you are holding a collaborative event in the city centre, as it will affect who comes to your event and feels comfortable for participants. – Participant 7 (facilitator/organiser)

The location of the meeting is important. The space has high racial tension and race and class divide the neighbourhoods. So we wanted to find a “neutral” location. And we found that in the local museum, which was central and not really based in any one community. It also paid respect to the local history. There was public transport nearby, so it was easy for people to get to it in the evening and everyone felt comfortable meeting there. – Participant 5 (Facilitator/organiser)

These quotes speak to the fact that spaces are never neutral, but contain local politics, facilitate specific behaviours, evoke different emotions and embody the past. It is important that organisers understand the history of a space before entering it, which can help them to select a safe space that will facilitate deep participation from all stakeholders. This may be a difficult task for outside organisers, given that they may not be familiar with a space. This can be overcome through guidance and partnership with local organisations and individuals in the pre-project phase.

The right facilitator, setting and methodology all contribute to the creation of a safe space. However, it can also be supported through ensuring that no participant feels tokenised and unheard in a process.

When working with this one organisation for music development in my township, I am often the only person in the meeting who is from the community. And I know what not to do and when to do it and how to attract people and how to get more people participating. But it can be difficult for me to voice my opinions and say something will not work, or maybe we could do it this way. Because I am the only one I get kind of overpowered and also not being able to voice out because of lack of support from other people in the township. So it is important that there are equal numbers of people in a room, not just one person from a space. – Participant 9 (user/facilitator)

Tokenisation is unproductive and harmful, often resulting in the breakdown of relationships once community members realise they will not be taken seriously in an engagement. This is something outside organisers can avoid by ensuring the ratio between stakeholders is equal, or in some cases the community stakeholder group is greater than that of the outside organisers. It is important that these stakeholders feel comfortable and confident to express their opinions.

The table below summarises the ways a group culture and safe space can be created in the pre-project phase, in order to ensure that newly formed relationships between disparate stakeholders do not disintegrate over time in the design process.

Table 7. The key point of a group culture and creating a safe space	
Main elements	Key points
Group culture	Engage in a dialogue regarding what respect means and looks like for each participant. This helps to reveal and resolve any cultural clashes before starting the collaboration
	Have the group agree upon a shared culture of collaboration, write it down, hang it up and refer back to it during the design phase
	Safe spaces allow people to be vulnerable and ask embarrassing and awkward questions regarding cultural differences they experience, providing them with insights and answers that they would not have normally received and helping to improve their future collaborations
Safe space	A facilitator can help to create a safe space using specific body language, tone of voice and treating everyone equally
	Hold a conversation with regard to the safety of all personal and confidential information shared during the design process
	Separate groups of people if the topic is taboo and their collaboration may put them at risk in or out of the design process. Instead, use bridging activities that can help them to collaborate across the physical divide
	Select a venue and location that feels safe, welcoming and easily accessible for all stakeholders
	Do not tokenise participants, but instead ensure equal numbers of stakeholders are present

4.3.2 *Aligning expectations*

The next element in maintaining relationships is to ensure that the expectations of all stakeholders are discussed and aligned before starting the design process. If this is not done it is easy to overpromise and under deliver, which results in the breakdown of relationships and collaboration. This is a common challenge, given that all too often outside designers are naively enthusiastic and optimistic with overly ambitious projects that hope to affect large-scale change with limited time and money. When explicit and implicit promises do not manifest, those who participated in the collaboration are left feeling betrayed, angry and distrustful. This contributes to feelings of animosity from local stakeholders toward future outside designers. By allowing stakeholders to discuss their personal desires and agendas before starting a

project this challenge can be avoided and managed. This space provides organisers with an opportunity to clarify any misinformation and discuss limitations, offering stakeholders an opportunity to leave the process before it starts should they have misunderstood the project's intentions and no longer wish to participate. All of this helps to prevent future breakdowns in the collaboration during the design phase.

I would invite them to say something about themselves before starting. "What is your agenda? What is it that you hope to achieve? What are your aspirations in this regard?" By identifying that up front and having it out in the open you have a better chance of people not leaving, or people being genuinely involved throughout the process. All of the stakeholders will then acknowledge or understand why the others are in it. - Participant 3 (designer/facilitator)

Another thing that I always do is to start a workshop with a hopes, fears and expectations exercise. Why do you think you are here? What do you want to gain from these processes? What do you expect from me as someone who is saying they are facilitating? People will say respect and things like that, but then some will say I want a certificate for being part of this process. If we are able to give certificates for participation it is possible, but then in other trainings, like the one I am doing with neighbourhood watches, I am not sure of what my powers to grant something like that. So it is through open communication for people to know what you are able to give and what you are not able to give. So that if they see that this is important for me as an expectation and you can't give it I am leaving. It is fair rather than when you reach the end and people say they didn't like this but you didn't even ask them in the beginning what they were expecting. – Participant 29 (facilitator)

The alignment of expectations and realistic deliverables referenced in the quotes above is a continuous negotiation. It should be an open discussion that should continue throughout the process, as the participants' desired outcomes often change over time and continue to impact their participation.

Another common aspect with regard to expectations is how they are often linked to and affected by the social position of stakeholders. For example, in the quote below there was an assumption from the community stakeholder group that the external NPO organising the design engagement would be able to provide them with liquor licences should they take part in the project. This assumption was mostly due to the

fact that the outside organisation was seen as having powerful connections to government and access to resources. However, this was not the case and the organisation did not have the power to grant licences, nor was it interested in doing so. The organisation anticipated this unspoken expectation, as it was familiar with the context and had established relationships with the participants. It also knew from experience that it had to address this issue upfront if it wanted to protect established relationships and future collaborations. It was important to state before they started that participating in the project would not result in receiving licences. This provided an opportunity for those who believed this to be the case to leave the process.

We were outsiders from a local NPO coming into a community to talk about making sheebens safer. And by virtue of this fact there was an expectation by the sheebeners that we could provide them with liquor licences, because it may have seemed to them that we have power and we are connected to government. But we were not there to do that. We were very clear about this upfront and over time people realised it. We may have ruptured their hopes, but they understood that it is something that is out of our control, and that is not something we do. – Participant 21 (facilitator)

Clarifying any questions stakeholders may have before starting a design process also helps to prevent newcomers from derailing a project. If the group has already asked similar questions and resolved issues, they are able to provide the disrupters with quick answers, helping to move the process along on the organisers' behalf.

So you definitely need to bring people to the same platform and then you move together. Because if I'm on a different platform then people have a lot of questions throughout the process and they don't want to work with you. If you are in the same understanding and they know that you are designing to improve incrementally, then the next person who asks the same questions that they have already been asked the community will say "woah, woah, we will deal with you, now we have moved forward we don't want you to bring us back". So that is when you don't have to battle those discussions, because the community will deal with these new people themselves outside the process. – Participant 22 (designer/facilitator)

The different timelines of each stakeholder also need to be recognised, discussed and aligned before starting a design engagement. This can often be a difficult process, as it may be unclear when a project will end, given the emergent nature of the

collaborative design process. However, it is important that the group does not assume that everyone can offer the same time commitment, or work at the same pace. This is an unrealistic expectation and can result in frustration from different stakeholders, as they wait for other participants to finish or feel rushed to catch up with the group.

Engaging with your partners to realign things and to put the timeframe right is important because the community expects that if you come planning today, then tomorrow you will implement. But we don't live in such a world, we live in a world where when you plan today the city is going to go out for a tender in a week and then take another three months. So it's about getting the community to understand this process and finding things for them to do while you wait for the city to finalise their processes. – Participant 27 (designer/facilitator)

The students have a sense of urgency and they want to finish as they have deadlines to meet. However, the community are chilled. So how do we work together? That is how I facilitate my discussions to highlight the importance and also find ways of working together and find the right timeframe to work together. – Participant 22 (designer/facilitator)

Outlining these timeframes and ways of working in the pre-project phase helps to structure a process free of stress and frustration, and provides some peace of mind. A rough timeline also helps the group to discuss the scope and depth of the work and aim for achievable goals.

If you tackle too big of an issue in too little time all you're going to do at the end of that is maybe frame an issue, if you're lucky. Which people already know or experience, but don't have the capacity to act on. This is frustrating for participants. So if you don't have enough time then you should do a shorter project. It should be specific and do-able within the time. For example the solid waste project, a short win would be maybe welding up the bottoms of the containers to stop rats going in and out, something like that. So it's important that people don't try to unpack wicked problems in two or three days. Because in that amount of time people don't even get to know each other and that means at the end of that process you still don't know the person's name on something you're working on, and so you're less likely to be honest or share your ideas. – Participant 23 (designer/facilitator)

To conclude this section, the elements in the table below help to minimise frustration and prevent breakdowns in the upcoming design phase, as they provide stakeholders

with clarity regarding what one can expect in the design project and allows those who hold different expectations to leave should they no longer wish to participate.

Table 8. The key points of aligning expectations	
Main elements	Key points
Expectations	Engage in a dialogue regarding individual expectations, which allows for clarification of misinformation or inaccurate assumptions. Participants are free to leave the process before it starts should they have been misinformed
	Align expectations and provide clarity, which helps to prevent future disruptions. The group can quickly update new participants who may have the same questions on their arrival
Timeline	Discuss individual timelines and factor this into the design process, helping to minimise frustration and misunderstandings
	Take on a design challenge that matches the time allocated for a design project. This helps to avoid unrealistic expectations

4.3.3 Ethics

The last part of this section discusses the ethics in a cross-boundary collaborative design engagement. This is something that needs to be examined and considered in the pre-project phase if one is to ensure equality of participation and safety of all stakeholders in the design process.

Engaging in a Social Design project is a serious commitment, one that should not be taken lightly. Once a project is started there is an underlying promise and intention to affect social change, which could significantly improve the lives of many. Yet this commitment is often lost on those who do not experience the challenges directly, or will not benefit from the design outcome, given that stakeholders (most often foreign designers) do not have to face the challenges daily and have the luxury of leaving a context. This results in a different level of urgency to that of local stakeholders. Addressing social challenges is a complex and lengthy process and is often not possible in the short timeframe foreign designers are able to commit to a project. Thus, they most often leave a community when their resources run out or when they achieve their personal goals, but not when a solution has been found or

implemented. In these cases, if measures are not put in place to support the continuation of a project by local stakeholders communities are left in a state of dependency unable to continue the project themselves and waiting on the foreign designers to return. Few designers return and projects are often abandoned, leaving the community in the same, if not a worse, position than before. They not only physically litter the space with broken ideas, but also potentially psychologically damage a community whose hopes of a better life have been dashed and sense of agency removed.

I think it is more devastating for a community to walk in with hope, than for a designer to leave without implementing anything. Community members have more to lose and risk more by participating. They may feel that their space and privacy was invaded and their painful memories and experience examined. And if nothing comes of it then what is that all for? The communities' hope is crushed and they are left feeling angry and abandoned. - Participant 7 (facilitator/organiser)

If a design process is done wrong it demoralises everyone involved in the project. It doesn't destroy only the process of the project, but can also destroy the community spirit and hope for a better life. – Participant 27 (designer/facilitator)

In order to prevent this from happening, outside stakeholders need to think, before starting, about how to end a project and exit a community. Interviewees have described this as the exit strategy.

In fact we, with the Department of Health, have this memorandum that is kind of like our exit strategy. We developed it before we started the project and had all the different partners sign it. It said that we would set up a clinic and run it for a period of time, and then we would hand it over to the local stakeholders and government to run. We made this clear upfront to the community stakeholders, and I think in part that was how or why they believed that it would be something that would be around for a long time. They knew we had worked on an agreement that said we would run it and make sure it was set up well and then we want to hand it over because that is sustainable. They knew and so did we that it was not realistic for us to stay around and run the project. We don't really have that much security or capacity. We have done this in two different collaborative projects and both have been successful, as it gives everyone enough time to plan and prepare for our eventual departure. – Participant 28 (facilitator)

Discussing an exit strategy in the pre-project phase ensures that measures are put in place for a successful and smooth transition once foreign stakeholders leave a project or community. A successful transfer can be done by strengthening local stakeholders' capacity to act through partnerships, resources, upskilling individuals or amplifying existing projects and innovations. This helps to prevent dependency and the potential to undermine existing functioning social structures and innovations.

It's being able to see that communities have power to plan and actually do things for themselves. Yes, they need help. Yes, they need patience. Yes, they need assistance in terms of seeing beyond the situation they are stuck in. But one mustn't undermine the power community leaders have in their own communities and the power to persuade other community members to act and improve their environment themselves. – Participant 27 (designer/facilitator)

Dismissing a community's internal power and capacity to act is both disrespectful and can cause irreversible damage to relationships and projects. Outside stakeholders need to take this into account in order to better prepare themselves for cross-boundary collaborative design engagements.

I was working in this project with shebeen owners and there were two participants who lived across the road from each other. The one owner accused the other of bewitching his business and this affected the whole group. They wanted me to mediate the situation and I did not want to do this. I said they must sort it out themselves using existing social systems like the community street forums. I knew that by getting involved I would create dependency. I could not be there in the future and if I mediated this would affect their ability to deal with things without me. So in the end they dealt with it in their community and at section or street meetings and I encouraged them to do so. I said to them "guys, don't wait for me to come to visit you to talk to each other. The processes are not about me but about you as a group. We are hoping that the process and conversations won't end when we are not here anymore". – Participant 29 (facilitator)

This quote speaks to the interviewee's personal awareness regarding her role as an outsider and facilitator in the project. She knew that if she were to facilitate the disagreement between the participants, she would do the group a disservice, given that it would not strengthen their ability to mediate future conflicts. Instead, she encouraged that they use established community forums to deal with disagreements

of this nature. Acknowledging that this action was more sustainable would strengthen their capacity to act after she left and not result in the breakdown of the group.

In addition to the danger of creating dependency, the process of leaving a community can also be painful, especially if stakeholders have developed generative relationships over a long period of time and consider each other friends beyond their working relationships. This can solicit feelings of rejection once outsiders have left.

It's a commitment and I think many people are not willing to make that commitment. There's a side to this that often doesn't get discussed, and that is what happens when people, especially in longer research projects, extract from a community. That is hugely emotional for communities who have built what they think is a friendship and a relationship with you. You now qualify and get your master's, you never return. That's a problem. So, I mean with bigger projects, "what is your exit strategy?" It can't just be "thank you, this is the last session, there you go". And in many cases you never leave the community, you are on the Facebook group, and every now and again you are going to post a picture. Because when people leave it can feel like a painful, emotional breakup, and people feel left behind. – Participant 30 (designer/facilitator)

The "heartbreak" described by the interviewee is often unavoidable and is a natural response. However, by discussing the exit strategy with stakeholders before and during a collaborative process participants can better prepare for their eventual separation and can think of ways to remain in touch and ease the pain, for example by moving their relationships to virtual forums such as Facebook.

A second recommendation given by interviewees with regard to ensuring ethical design processes, was to identify and partner with a "gatekeeper" in the pre-project phase. A "gatekeeper" was described as a local organisation that acted as an entry point into a community, able to monitor the actions of outside stakeholders and leverage its institutional or collective power to protect local communities. It did so by vetting external organisations that wish to work in the context before they entered, ensuring that only those it felt would work in ethical and mutually beneficial ways could collaborate with the community. It also provided local stakeholders with a safe space to report any unethical behaviours displayed by external stakeholders,

something the community may not feel comfortable voicing directly to such stakeholders.

Because many people were coming into our community and exploiting us, we have started this arts association forum and we are like the door or the gateway for outside organisations to be able to come and work in our township. That's our aim, that anything that's got to do with art has to come through the association so that work is spread out and the people protected. – Participant 9 (user/facilitator)

Because I have been part of projects that have exploited local people I now only choose to be a part of projects where there is a stakeholder who is in essence a gateway to the community, whether it's an informal group of people, group of elders, organisation, church or a school. This gives the community a buffer and a space also to complain. If people are unhappy they may be scared to talk to the outside stakeholders about it. They need somewhere where they feel safe and can voice their feelings. They also need an organisation that is strong enough to work on their behalf to address the issues they have voiced and tell the outsiders when to stop and leave if they do not change. – Participant 30 (designer/facilitator)

These quotes highlight the importance of working with a gatekeeper whose collective power matches that of an external organisation, able to point out their problematic behaviours without fear or hesitation. However, at times external stakeholders do not mean to offend or upset local stakeholders, they merely are unaware of the social protocols and nuances of a space. In these cases, gatekeepers can help to educate and guide them, ensuring that they do not unintentionally upset others. Their role is similar to that of a local bridge discussed in the previous section.

So if you want to work in this specific community you have to follow a traditional process. This can be hard to do as an outsider, however through a relationship with a local stakeholder they can help you understand what to do. They may say, "first you will have dinner with the elders and you will not talk about this research project at all. It will be 'how are you, how is your son, lovely dress you're wearing..." And you will leave, and you will make another appointment to see the elders, and then you'll figure out whether it's okay for the project to happen. Because if you want to actually really interact with the community, there is this whole other hidden side of interaction that very often people miss out on, which means that if you ignore the social systems of a space and do your own thing then your efforts can be marred by unhappiness at a community level. - Participant 30 (designer/facilitator)

The next ethical challenge regards financial compensation for one's participation in a collaborative project, a controversial topic with little consensus concerning best practices. There is often an imbalance in payment in a collaborative project, where facilitators, designers and organizers are paid, while local community stakeholders and other informal experts are expected to participate for free.

Like in any project you are going to pay your staff. So why then can't you? Would you assume that because it is their community project they will do it for free when all the other people are paid? – Participant 27 (designer/facilitator)

Some interviewees saw no issue with only paying a few key players, as they believed informal stakeholders gained from the experience in non-monetary ways, for example receiving design training, or directly benefiting from the design solution. However, the researcher suspects that this imbalance of payment is linked to a social bias, which values people's time and expertise differently, with those who are professionally trained seen as adding more value to the design process over those who hold informal experiential knowledge. Other interviewees agreed and have found creative ways to work around this bias by "professionalising" informal stakeholders.

There's one example where due to the nature of the project and our funders we were not allowed to pay local participants, but I know that demanding a lot of time from participants needs to be rewarded, especially people that are working and have to take days off to participate in the project. So we found ways to include them as action researchers, or they get paid for the drama performances. Or one of our other programmes was screening people for TB, which is symptomatic screening, asking a set of six questions. Instead of getting external researchers we opted to write into our proposal that these community members do the job and get paid. – Participant 21 (facilitator)

However, if it is not possible to pay individuals, one can establish a non-monetary mutual exchange, which can also be as rewarding and beneficial as direct payment.

This big organisation wanted to hold a workshop in my township, so they were looking for youth from my community to take part, and in exchange they sponsored us with a stage and sound for our upcoming event. So we didn't have to charge an entrance fee. It was a great exchange, as their workshops

aligned with our vision for community development and we got a stage and were able to hold a free concert. - Participant 9 (user/facilitator)

Regardless of the method of payment, it is important that the decision is transparent and all stakeholders are made aware of it in the pre-project phase, allowing those who disagree with the payment process to leave should they no longer wish to participate. This transparency also helps to prevent controversies between stakeholders should they discover they are being paid differently, or were under the impression they would be paid at the end of an engagement.

The table below highlights the different ethical issues that need to be discussed and considered in the pre-project phase, which helps to ensure the ethical treatment of stakeholders during and after the design process.

Table 9. The key points of ethics	
Main elements	Key points
Commitment	Engaging in Social Design projects is a serious commitment, given that they often involve grave social issues that severely affect people's lives. External stakeholders need to recognise this before starting
Dependency	It is important to think of and put an exit strategy in place before starting an engagement, which helps to facilitate a smooth transition once external stakeholders have left a community
	To ensure that dependency is not created, external stakeholders need to limit their roles, upskill local stakeholders, partner with local organisations or amplify existing innovations that others can continue to maintain
	Leaving a community and ending relationships can be "heartbreaking". It is important to prepare stakeholders for one's eventual departure and find alternative ways to stay in touch after an engagement is over
Gatekeepers	It is important to partner with local organisations that can act as gatekeepers and provide local participants with a safe space to report negative behaviour from external participants. Foreign stakeholders should be assisted in adapting to local social protocols, or leave if they continue to exploit the community
Payment	There are no clear answers with regard to best practices regarding payment, but whatever payment strategy is decided upon should be made transparent at the beginning of a project. This will prevent future conflicts from occurring during the design process

4.4 Summary

It is evident from these findings that generative relationships established in the pre-project phase help to support effective cross-boundary collaborative design. They do so in several ways:

1. Improve cross-boundary communication

Generative relationships engender feelings of trust and respect, which then encourage vulnerability and the sharing of intimate personal information. This helps to:

- i. Create a safe environment, encouraging participation and assisting stakeholders to ask difficult and uncomfortable questions regarding cultural differences; and builds empathy and understanding, minimising cultural clashes in the upcoming collaborations
- ii. Enhances levels of respect and patience between participants, resulting in the willingness to listen and compromise during the collaborative process
- iii. Helps to reveal true, authentic and rich information regarding the personal experiences, behaviours and values of stakeholders, which then help to inform the design process and outcome
- iv. Levels power dynamics and blurs defined roles and social boundaries, which encourages everyone to share and collaborate equally during the design process, increasing the potential for innovative design outcomes

2. Minimise paternalistic and unethical practices

Generative relationships and friendships help to shift power dynamics from one-directional givers and receivers to a cyclical exchange of mutual benefit.

- I. This levels power dynamics and limits paternalistic attitudes, as there are no defined “givers” and “receivers”, but instead a group of people who benefit equally from a design collaboration. This is a process that is respectful and encourages reconciliation, which is particularly relevant in postcolonial countries where the effect and presence of

colonial research and design persists. Designers from privileged social positions or those from western countries need to remain self-aware and develop generative relationships with others in order to prevent repeating the actions of their forefathers.

- II. It provides stakeholders with the confidence to disagree with one another and call out unethical and problematic behaviours. They are confident that the strength of their relationships will allow them to overcome these disagreements without breaking the process or project.
- III. It encourages participants to uphold ethical and equal processes and practices, not because they think it is the right thing to do, but because they truly believe in the wellbeing of one another and wish to support each other.

3. Provides passion, commitment and personal benefit

Generative relationships provoke feelings of connectedness, friendship and love that help to provide stakeholders with energy, passion, commitment and a sense of belonging during the design process.

- I. This supports and sustains the often long and uncertain collaborative process of developing design solutions that can effect social change.
- II. This tenderness also helps stakeholders to navigate the almost inevitable cultural clashes during a collaborative process, as it encourages stakeholders to act with patience, listen with intention and compromise.
- III. Love and friendship can have a nurturing effect, providing personal benefit long after the collaboration is over.

Establishing and maintaining relationships between disparate stakeholders across social divides is not a simple process, especially in a country that experiences high levels of distrust and animosity between different social groups due to an oppressive past and an unequal present. The pre-project phase described in the findings offers a solution to this challenge by providing stakeholders with a safe space free from the

pressure of developing design solutions and instead focuses solely on relationship building.

The table below summarises the findings with regard to the elements and activities that help to ensure the development of generative relationships in the pre-project phase. It also consolidates how these actions will benefit future cross-boundary collaborative design processes.

Table 10. Conceptual model of the pre-project phase

Establishing relationships			Maintaining relationships		
Internal actions	External actions	Connectors	Group culture & safe space	Aligning expectations & timelines	Ethics
<p>Self-reflection actions</p> <ul style="list-style-type: none"> - Identify biases - Understand triggers - Manage natural tendencies - Listen to and receive constructive feedback <p>Shared control</p> <ul style="list-style-type: none"> - Listen to others with intention - Open to learning for others - Move out of your comfort zone <p>Respect cultural believes</p> <ul style="list-style-type: none"> - Accommodate difference cultural practices 	<p>Personal sharing</p> <ul style="list-style-type: none"> - Personal stories, dreams, hopes, fears - Shared activities <ul style="list-style-type: none"> - Eating together - Playing together - Cultural exchanges <ul style="list-style-type: none"> - Visiting different communities - Sharing traditions - Learning languages <p>Mutual learning</p> <ul style="list-style-type: none"> - Learn exchange - Build off and amplify existing ideas <p>Invest in local economy</p> <ul style="list-style-type: none"> - Hire local people to support project, catering, tour guide, facilitator 	<p>People</p> <ul style="list-style-type: none"> - Mobilising organisations - Community champions - Facilitator - Translator <p>Objects</p> <p>Examples: poster, electrical cord</p>	<p>Group culture</p> <ul style="list-style-type: none"> - Discuss cultural norms regarding respect and participants - Establish a shared set of rules that will govern the design engagement - Refer back to and implement during the design process <p>Safe space</p> <ul style="list-style-type: none"> - Established by a skills facilitator through words, attitudes and mediation - Discuss the protection of personal information - Identify controversial topics and separate the groups if necessary - Select a venue that is safe and welcoming - Avoid tokenisation 	<p>Aligning expectations</p> <ul style="list-style-type: none"> - Discuss individual expectations - Clarify any misunderstandings or assumptions - Negotiate and align realistic expectations which then allow people to leave the process at an early stage if it does not meet their expectations <p>Aligning timelines</p> <ul style="list-style-type: none"> - Discuss individual timelines and sense of urgency - Attempt to align these timelines within the project - Tackle challenges that matches time allocated 	<p>Commitment</p> <ul style="list-style-type: none"> - Stress the severity of the commitment it requires to engage in Social Design projects <p>Limit Dependency</p> <ul style="list-style-type: none"> - Develop an exit strategy - Upskill local stakeholders - Transfer to partnering organisations - Support and improve existing innovations - Manage “heart break” <p>Partner with Gatekeepers</p> <ul style="list-style-type: none"> - Protects community - Holds external stakeholders accountable - Limits exploitative methods - Provides community with a safe space to complain - Educates external stakeholders regarding social protocols <p>Transparent about payment</p> <ul style="list-style-type: none"> - If difference, then why?
<p>Importance:</p> <ul style="list-style-type: none"> - Minimises prejudice or bias - Manages reactive behaviours - Levels power dynamics - Manages ego - Demonstrates respect 	<p>Importance:</p> <ul style="list-style-type: none"> - Helps to establish common ground - Builds trust - Helps to develops cultural understanding and empathy - Resolves conflicts - Healing process - Levels power dynamics - Respects local knowledge - Demonstrates commitment to community development 	<p>Importance:</p> <ul style="list-style-type: none"> - Connects stakeholders - Mediates interactions - Reveals local social protocols - Improves communication - Engenders trust - Speeds up the relationship-building process - Establishes common ground and shared vision 	<p>Importance:</p> <ul style="list-style-type: none"> - Reveals cultural differences and negotiates a shared understanding - Establishes common ground - Holds people accountable for their disrespectful actions - Ensures participants will not be placed in physical or mental harm - Encourages authentic and honest sharing - Engenders trust - Levels power dynamics 	<p>Importance:</p> <ul style="list-style-type: none"> - Manages expectations - Clarifies false assumptions - Prevents future breakdowns - Minimises anger and frustration - Limits unrealistic outcomes 	<p>Importance:</p> <ul style="list-style-type: none"> - Limits dependency - Supports successful exits - Minimises heartbreak - Supports and strengthens local agency - Eradicates exploitative behaviour - Ensures ethical and fair treatment for all - Levels power dynamics - Prevents future disruptions, anger and frustration

5. DISCUSSION

5.1 Generative relationships and collaborative design literature

The following section will discuss the findings of this thesis in relation to current Social Design literature on the topic, specifically linking its central claim that, **generative relationships established in a pre-project phase help to support effective cross-boundary collaborative design engagements**, back to the broader conversation. Before we explore this further it is important to reiterate that the term **generative relationship** is used by the researcher to describe a specific type of interpersonal connection between disparate stakeholders that emerged from the data. This type of relationship played a critical role in ensuring the effectiveness of future cross-boundary collaborative design engagements, given that the depth and quality of these connections surpassed simple acts of linear exchange and polite engagements, and instead were replaced by intimate mutually beneficial reciprocal relationships. It is a relationship that blurred the social boundaries between disparate participants, which, in turn, disrupted embedded power dynamics in the design process and helped to establish generative safe spaces of equal sharing and mutual benefit.

The first part of this section highlights how the concept of generative relationships connects to the work done by a small group of design academics, mostly situated in the global South, who place its significance at the core of the cross-cultural collaborative design work they are engaged in with rural indigenous communities (Brereton et al., 2012, 2014; Kapuire et al., 2015; Winschiers-Theophilus, Chivunokuria, et al., 2010). While a large part of their research iterates much of what has emerged from this thesis, the scope of their work has been limited to specific boundaries (urban western designers and rural indigenous communities). The findings of this thesis, however, have drawn from a larger range of collaborative projects helping to strengthen and deepen the knowledge on the topic, as well as provide additional evidence that demonstrates the importance of developing generative relationships in other contexts and across different social boundaries.

The second part of this discussion highlights the fact that while a few scholars have focused on the depth and quality of relationships between disparate stakeholders, the majority of social designers instead emphasise the use of design methodologies that support communication and cultural understanding across the social and technical divides as a way to improve cross-boundary collaborative design (Brereton et al., 2012; Hussain & Sanders, 2012; Lee & Lee, 2007; Rodil et al., 2012; Winschiers-Theophilus, 2009). This approach finds its roots in collaborative projects during the 1970s in western countries (Koskinen et al., 2011; Puri et al., 2004; Robertson & Simonsen, 2012; Steen, 2013; Vines et al., 2013), which were largely homogeneous with little social disparity or economic inequality (Bannon & Pelle, 2013; Blomberg & Karasti, 2013; Brereton et al., 2012). They were set in the workplace and focused only on technical design challenges (Irani et al., 2010; Koskinen et al., 2011; Robertson & Simonsen, 2012; Steen, 2013; Vines et al., 2013), which could have meant that relationships between stakeholders were already generative, or at least less complex when compared to current collaborative projects that have since moved into the public domain and now focus on social issues (Björgvinsson et al., 2012b; Dantec & DiSalvo, 2013; Hillgren et al., 2011; Hussain et al., 2012; Robertson & Wagner, 2013). This may explain why there is little literature that discusses the importance of establishing generative relationships and instead focuses on methods that provide disparate stakeholders with the vocabulary to communicate effectively.

However, as these collaborative design processes moved out of these countries and into other contexts with large social inequality, cultural disparity, animosity and distrust between social groups (Dearden & Rizvi, 2008; Hofmeyr, J., Govender, 2015; Irani et al., 2010; Peters, Winschiers-Theophilus, Bidwell, et al., 2014; Puri et al., 2004), it became ineffective to rely on communication methods alone to ensure effective cross-boundary collaborative design engagements, since the poor quality of relationships between stakeholders result in a lack of trust and willingness to engage with one another. Even the most effective communication methods cannot offer support if participants are not willing to collaborate. Furthermore, traditional western methodologies often position designers as facilitators and educators on a mission to “emancipate” “underprivileged” foreign stakeholders from social issues

by empowering them through the design process (Akama et al., 2015) (Roux & Costandius, 2013; Thorpe & Gamman, 2011; Tunstall, 2013; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). This is a “saviour” mentality that echoes a colonial past and often only deepens the power imbalance and animosity between the groups, since it does not support mutual learning or exchange (Akama et al., 2015; Roux & Costandius, 2013; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). Instead, western knowledge is seen as superior and forced upon other (Janzer & Weinstein, 2014; Kapuire et al., 2015; Tunstall, 2013). Without critical self-awareness, western designers can easily enact oppressive processes that lead to forced assimilation and erosion of different knowledge and practice (Blomberg & Karasti, 2013; Leydens, Lucena, & Nieuwsma, 2014; Sabiescu et al., 2014; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

Yet, if one starts by establishing generative relationships before engaging in a cross-boundary collaborative design process, most of these challenges can be overcome, since disparate stakeholders are more willing to engage with one another and have formed relationships of trust, understanding and love. They become confident in the knowledge that their contributions will be recognised and that their relationships will support their attempted boundary-crossing and help them to navigate potential cultural clashes successfully. Thus, the main contribution of this thesis is to question the dominant method-based trend, and instead propose that cross-boundary collaborative design engagements begin with establishing generative relationships, as a way to support communication across the social divides.

Furthermore, it recommends that these relationships develop outside of the design process in a separate preliminary stage of the pre-project phase. If set up correctly, the pre-project phase provides participants with a safe space to focus their energy on establishing generative relationships, free from the pressure and distraction of developing design ideas. It can be difficult to develop relationships and design ideas at the same time, as this creates a conflict of interest, slowing down the process and producing mediocre outcomes. However, if they are done separately participants can first establish a foundation of understanding that will help them move into a

future collaborative process with ease. They can then focus on the design process free from disruptions and develop solutions without having to constantly navigate cultural clashes and clarified misunderstandings. The detailed outline of this pre-project phase is an additional contribution of this thesis, as it attempts to make the “invisible” work of developing relationships “visible” by communicating it in a language designers, funders, organisations and institutions can understand. The hope is that this will draw attention to its importance and raise support for its implementation in the field and integration into Social Design education.

The last section of this discussion highlights additional implications of this thesis’s findings within the Social Design community both locally and abroad. These include contributing to the larger academic discussion on the topic, strengthening cross-boundary collaborative design practices and raising the critical consciousness of external social designers all of which then help to ensure successful, ethical and innovative processes that help to support and deepen the Social Design and Social Innovation movements.

5.1.1 *Literature featuring generative relationships*

The findings of this thesis connect to the work done by Australian and Namibian researchers using collaborative design processes with indigenous communities to develop new technology. They concluded that in order to ensure successful and equal cross-cultural collaborative design engagements one first needed to establish generative relationships across cultural divides. Without these relationships, there would be no trust or understanding between the disparate stakeholders, which would lead to fragile and unequal collaborations. Only through generative relationships could the disparate stakeholders begin to reconcile their differences, establish trust and feel comfortable enough to share their intimate thoughts with one another. This process helped to establish common ground and improve cultural understanding and communication, forming a solid foundation of participation that would ensure ease of collaboration in the upcoming design process (Brereton et al., 2012, 2014; Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

In addition, the activities the researchers used to establish these relationships were similar to those described in these findings. For example, they both place emphasis on the importance of informal activities that focus solely on developing relationships of trust and understanding, with no importance placed on developing a design solution. Examples include preparing food, eating together, sharing personal stories, helping with daily activities, fixing electronic devices and attending significant community events (Brereton et al., 2012, 2014; Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). These activities were conducted in a separate stage before the design process began, similar to that of the pre-project phase. In addition to establishing generative relationships, these activities provided external researchers with an insight into community life in non-threatening, intrusive or extractive ways. This was something that the Australian designers felt traditional ethnographic methodologies could not do, given that these methods often created a power imbalance between the researcher and those being researched. They felt that the reciprocal nature of generative relationships offered them a way to understand one another in equal and mutually beneficial ways (Brereton et al., 2014, 2015).

This preliminary relationship-building phase provided both groups of researchers and stakeholders time to understand the cultural differences between them. This, in combination with deep self-awareness and a critical look at traditional Participatory Design methodologies, helped the researchers to appropriate the design process to suit the context (Brereton et al., 2012, 2014; Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). For example, the Australian designers integrated the Aboriginal practice of “yarning” into the design process. This process can be described as holding in-depth conversations in an open, informal and meandering manner, often while doing other activities such as driving or walking in the wilderness. Instead of holding traditional formal workshops, they held design dialogues in this manner, discussing design ideas while doing other activities in an open-ended fashion. They found that this helped to solicit rich participation, as the local stakeholders felt comfortable and energised by this form of communication (Bessarab & Ng’andu, 2010; Brereton et al., 2014, 2015).

While the Namibian researchers realised that if they wanted to maintain their newly established relationships they would have to first co-design the design process itself with the villagers, as well as shift from the traditional role of a design facilitator to that of equal participant, since they recognised the current design methodologies bias their way of working and place them in a position of power. Only through allowing the villagers to equally shape the design process and integrate local forms of participation could they ensure that they did not force their perspectives on the other participants. However, they recognised that in order to create a safe space and ensure an equal collaborative process, they would need to negotiate the cultural differences and establish common ground. This process was an ongoing negotiation, made possible through the establishment of generative relationships, which help to hold the process together and prevent it from breaking down completely (Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

Much of what has been discussed above links directly back to this thesis, specifically with regard to the importance of understanding a context in the pre-project phase. In order to create safe spaces and appropriate methodologies that will support these newly formed relationships in the future collaborative design engagement.

Both sets of researchers stressed that designers should practice deep self-awareness and ongoing reflection before and during a cross-boundary collaboration, as it helped to improve the quality of their relationships with other stakeholders (Brereton et al., 2014, 2015; Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). Other design academics outside of these projects have also placed emphasis on this practice, as a way to limit harmful assumptions and prejudices designers may hold towards their “users” from affecting their design engagements (Blomberg & Karasti, 2013; Lucena et al., 2010; McMahon & Bhamra, 2012; Sinanan, 2008; Van Boeijen & Stappers, 2011). The Namibian and Australian designers also supported this reflection by partnering with local connectors and bridging organisations that were able to reveal the implicit social protocols of a space. This helped to mediate engagements between the disparate stakeholders and maintain their newly established relationships. In addition, they partnered with

gatekeepers, who acted as “watch dogs”, ensuring that the local stakeholders were treated fairly and the design outcomes were mutually beneficial (Brereton et al., 2015; Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). These partnerships were also recommended by other Social Design academics when working in foreign contexts, as a way to speed up the relationship-building process, ensuring respectful and effective cross-boundary collaborative design engagements (Best et al., 2009; Hussain et al., 2012; Janzer & Weinstein, 2014; Winschiers-Theophilus et al., 2015). All of this again links back to the findings of this thesis.

However, most of what has been written by these academics focuses specifically on collaborative projects between urban western designers attempting to cross national and cultural divides with rural indigenous communities²¹. Therefore, the findings of this thesis move beyond this area of concern and demonstrates how generative relationships can also support work in other contexts, specifically South African urban spaces and with participants from different social boundaries.

The researcher felt it was important to briefly mention that the concept of “infrastructuring”, described in the literature review, also connects back to the findings of this thesis. This is because it also places importance on establishing and maintaining generative relationships between diverse citizens, in order to establish networks of connected and capacitated people able to collaborate and design together for Social Innovation (Björgvinsson et al., 2012b; Dantec & DiSalvo, 2013; Hillgren et al., 2011). This concept has been implemented in Europe through the development of physical design infrastructure in the form of Living Labs, public spaces that provide citizens with a platform and safe environment to connect, collaborate and design together across the social divides (Björgvinsson et al., 2012b; Hillgren et al., 2011). While the form and practical application of this concept may differ from this thesis, the underlying principles resonate with the hypothesis, as it places larger value on developing and maintaining relationships between the

²¹ This specifically references to the Namibian, Australian and Cambodian cross-cultural participatory design projects (Brereton et al., 2012; Hussain & Sanders, 2012; Winschiers-Theophilus, Chivuno-kuria, et al., 2010)

stakeholders, instead of focusing on participatory design methods and project outcomes. These scholars recognise, as does the author of this thesis, that connected and capacitated stakeholders will be more resilient in the face of growing social complexity than any collaborative toolkit or physical design outcome (Björgvinsson et al., 2012b; Dantec & DiSalvo, 2013; Hillgren et al., 2011; Jégou & Manzini, 2008).

While this concept echoes the findings of this thesis, it does not replace or void them, since the literature on “infrastructuring” focuses mostly on the European context and its citizens, which makes it specific to this social landscape (Dantec & DiSalvo, 2013; Hillgren et al., 2011; Jégou & Manzini, 2008). It mostly discusses the impact and practical implementation of Living Labs as a way to support the whole cross-boundary collaborative design process. It does not focus on the finer details regarding how generative relationships can be established and maintained in these spaces (Björgvinsson et al., 2012b; Hillgren et al., 2011). In this way, the nuanced framework of the pre-project phase may be able to contribute something to this field of research. However, as mentioned above, this framework and findings are grounded in South African data and thus specific to this context.

5.1.2 Focus on communication methods

While there are a few scholars²² focusing on the importance of establishing generative relationships in the collaborative design process, most of the cross-cultural Participatory Design literature focuses on developing cross-boundary communication methods, as a way to support boundary crossing (Brereton et al., 2012; Hussain & Sanders, 2012; Lee & Lee, 2007; Rodil et al., 2012; Winschiers-Theophilus, 2009). The researcher speculates that this emphasis has been influenced by the history of Participatory Design and the scientific approach common in the design field, since these early participatory projects were based in Scandinavian countries with largely homogeneous societies where a common base of cultural

²² Namibian and Australian cross-cultural participatory design projects (Brereton et al., 2012; Winschiers-Theophilus, Chivuno-kuria, et al., 2010)

understanding already existed (Bannon & Pelle, 2013; Blomberg & Karasti, 2013; Brereton et al., 2012). Furthermore, they were situated within the workplace environment, a contained setting with a shared organisational culture, common goals and mechanisms that ensured the safety and ethical treatment of all workers (Irani et al., 2010; Koskinen et al., 2011; Robertson & Simonsen, 2012; Steen, 2013; Vines et al., 2013). Therefore, the social divide between participants was substantially smaller when compared to contexts in the public domain and between culturally disparate stakeholders. In these situations, little foundational work was needed to prepare stakeholders for an eventual collaboration, as their cultural similarities limited the potential for cultural clashes or misunderstandings, and their similar social position meant that the power dynamics within the group would not affect their participation (Bannon & Pelle, 2013; Blomberg & Karasti, 2013; Brereton et al., 2012). The researcher believes that this then allowed the designers to focus solely on developing methods that supported the collaborative design process.

However, as Participatory Design practices moved out of this environment and into the public domain and other cultural contexts, this common base of understanding diminished. In the South African context, it was replaced by large cultural disparities, social inequality, animosity and distrust between different social groups (Hofmeyr, J., Govender, 2015). In these situations, it is naïve to believe that communication methodologies alone will effectively level social power dynamics and bridge social divides. Traditional Participatory Design practices often only reinforce or increase power imbalances, given that the concept of “mutual learning” highlighted by these communication methods are not reciprocal but rather one-directional activities of knowledge sharing (Brandt et al., 2008; Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

This often places designers in a position of power, given that they are rarely asked to share personal information about themselves or their culture with others (Brandt et al., 2008; Brereton et al., 2014). Yet, local stakeholders or “users” are required to do so in order to inform the design process, an act that can feel unsafe if they have not formed generative relationships with the designers (Brereton et al., 2014; Chavan,

2005; Kapuire et al., 2015). This lack of reciprocal personal sharing then makes it difficult for designers to build trusting relationships with users (Brereton et al., 2014; van Stam, 2013), which in turn can compromise the quality of information shared in the process, since it is unlikely users will provide authentic information to a stranger they do not trust (Hussain et al., 2012; Leydens et al., 2014; Winschiers-Theophilus, Bidwell, et al., 2010).

Most traditional collaborative communication methods have been developed in a western context and thus bias a western perspective and practice of participation which is not regularly acknowledged by the Social Design community and instead often believed to be universal and “neutral” (Bardzell, 2010; Irani et al., 2010; Kapuire et al., 2015; Robertson & Simonsen, 2012; Rodil et al., 2011; Winschiers-Theophilus, 2009). This problematic assumption can result in the forced assimilation of other cultures into a western way of working, which in turn can result in the erosion of alternative knowledge and practices. This can echo a colonial past, which further deepens power imbalances and animosity between external designers and local stakeholders (Akama et al., 2015; Brereton et al., 2014; Kapuire et al., 2015; Tunstall, 2013; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). In addition, the traditional role of a designer, as a facilitator or educator can perpetuate this power imbalance if local stakeholders are only seen as beneficiaries to be “empowered”, but not educators in their own right able to share their knowledge and practice with the designers (Akama et al., 2015; Kapuire et al., 2015; Winschiers-Theophilus, Chivuno-kuria, et al., 2010). Without this mutual sharing, there is little opportunity to build generative relationships and appropriate design methodologies to suit all forms of participation (Brereton et al., 2014; Kapuire et al., 2015; van Stam, 2013; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

Even if it was possible for designers to develop the most advanced methods without first building generative relationships, these processes would produce shallow and hollow results if the stakeholders do not wish to communicate openly and honestly with one another. This is common in contexts where there is high animosity and distrust between social groups, or in communities wary of the intentions of external



design researchers. However, if one starts by building generative relationships, all of these challenges can be overcome, since these relationships help to shift interactions from one-directional learning to that of reciprocal mutual sharing, starting with a loss of ego replaced by a sense of friendship and commitment to establishing shared value and mutual benefit. That then helps to level power dynamics and create safe spaces in which participants feel comfortable to disclose and share intimate and authentic information with one another. For example:

- It provides participants with a space to ask each other difficult or embarrassing questions with regard to the difference in culture and perspective. They are secure in the knowledge that their questions will be received with patience and respect, which helps to enhance their understanding of each other's worldviews. They become more sensitive to different cultures and try to limit any unintentional disrespectful and offensive behaviours or biases from affecting their engagements.
- They are able to criticise and disagree with one another, an act that helps to deepen the design dialogue. They become confident in the knowledge that their relationships will help them to navigate these disagreements successfully and not result in the breakdown of the process or place them at personal risk.
- They are more willing to listen and compromise in order to negotiate these differences and establish common ground.

All of the points above improve the effectiveness of the communication methods and quality of the design dialogues. Generative relationships ensure that everyone is treated fairly and can participate equally, not because it is the ethical thing to do, but because participants are genuinely concerned with the wellbeing of one another. Positive and nurturing relationships help to provide stakeholders with passion and energy to engage with one another over the often-lengthy collaborative design process. These relationships help them to stay committed to developing and implementing a design solution even in the face of great difficulty.

The table below highlights the differences between the two approaches.

Table 11. Comparative summary of a communication methods-based approach versus a generative relational approach

	Communication method-based approach	Generative relational approach
Description	<p>Emphasis placed on developing new collaborative design methods and tools that help disparate people communicate across social boundaries during a collaborative design workshops. The assumption is that improved communication and understanding between disparate stakeholders during the workshop will help to improve the collaborative process and produce innovative design outcomes.</p>	<p>Emphasis placed on establishing generative relationships between disparate people before starting the collaborative design workshop. The assumption is that by deepening the quality of relationships between people before starting a design engagement, this will help to improve the communication methods and tools used in the workshop given that disparate people are more likely to feel comfortable and willing to engage with one another and the proposed method.</p> <p>Without first establishing such relationships the workshop environment can feel unsafe, threatening and unequal, limiting the participants' desire to engage with one another or the proposed method, producing shallow and hollow design outcomes.</p>
Common methods	<p>Communication methods and activities are often pre-selected by designers or organisers and often bias the designer's worldview or method of communication, placing them in a position of power. They also tend to be specific to each shareholder and do not require the different stakeholders to do the same thing.</p> <p>Examples of common activities for designers: (see appendix C.)</p> <ul style="list-style-type: none"> • Cultural models; Hofstede, Hall • Ethnographic research: Qualitative interviews, Auto ethnography, Cultural probes, Observations, Context and resource mapping, Desktop research. • Empathy activities: Experimental design games and drama activities, Personas, Empathy mapping, User journeys/story boards <p>Activities for users: (see appendix C.)</p> <ul style="list-style-type: none"> • Skills development: technological literacy, education regarding design language. • Design Games for better communication: Drama, forum theatre, body storming, Pictionary, brainstorm. • Boundary objects: Prototyping/making sessions, 2D or 3D maps and colleagues, bridging technology 	<p>In contrast to the communication methods-based approach, everyone engages equally in these activities that help to establish and maintain generative relationships before the design engagement. Together they can select and appropriate the communication methods for the future workshops itself.</p> <p>Examples of common activities:</p> <ul style="list-style-type: none"> • Personal awareness and reflection: Understand your biases, prejudices and triggers, let go of control, practice humility and cultural tolerance. • Mutual sharing and learning: Formal activities: Introduction games storytelling/cultural exchange/house or site visits, Informal activities: Sharing personal stories, cooking/eating together/driving together/attending significant community events. Mutual learning: Working off local innovations/teaching exchange • Maintaining relationships; Learning about local forms of participation, democracy and knowledge to integrate them into the design process. Creating a safe space by developing a group culture and getting consent. Start by aligning expectations and timelines. Discuss and plan for a successful exit strategy. Partner with bridging organisations and gatekeepers to ensure the safety of established relationship
Direction of methods	<p>One-directional exchange These communication methods tend to be specific to each shareholder. In this way, their exchange is one-directional where the designers learn about the users, but are not required to share their own background. The users learn about design methods, but do not get to teach the designers any skills they have.</p> <p>Activities for designers: understanding & empathy with users Users supply contextual information and personal insight so that designers can gain understanding into their lived experiences and produce relevant and innovative ideas</p> <p>Activities for users: empowering / priming / prepare Designers provide users with design and tech education, tools and vocabulary so that they may feel empowered and communicate more easily within the designer in the design process</p> 	<p>Reciprocal exchange (power is shared by all) The activities aimed at building generative relationships are reciprocal, where everyone shares, listens, teaches, learns, designs and innovates together. The line between who does what and how are blurred and everyone is encouraged to communicate equally</p> 
Roles	<p>Roles are often predetermined and there can be clear distinctions between "providers" and "beneficiaries". This can limit innovation or the generative nature of the collaboration, as input is restricted and limited to a few people and participants feel hesitant to contribute different information other than what they are asked to do. This can limit flexibility with regard to changing one's role in the process.</p>	<p>In the early stage of the pre-project phase roles are left undefined and flexible. All stakeholders are asked to share and participate equally with one another and feel free and confident to contribute equally within the future collaborative design engagement. Generative relationships help participants to see beyond their assigned social position or role within a collaboration and instead recognise a shared humanity, creating a safe and welcome environment that helps to facilitate equal collaboration and innovation.</p> <p>(However, there are some roles that are fixed, such as a facilitator or bridging stakeholder whose role has never been to engage in the collaborative process as a design participant.)</p>

5.2 Main contribution

The main contribution of this thesis is the focus on building generative relationships before starting the design process, as a way to support effective cross-boundary collaborative design for Social Innovation. This proposal challenges the more traditional method-based approach, which focuses less on building relationships and more on developing communication methods that help to support cross-boundary collaborative design engagements.

However, it is important to note that this suggestion does not disagree with the claim that communication methods can help to support cross-boundary collaborative design. Instead, it proposes that by first establishing generative relationships the effectiveness of these communication methods can be increased. These findings demonstrate that the depth and quality of interpersonal relationships between disparate stakeholders is an important factor in their ability to collaborate effectively across the social boundaries within the collaborative design process.

The emphasis on developing neat and “magical” methods that work consistently is an unrealistic attempt to control the often messy, complex and context specific collaborative process. Instead, the researcher recommends that designers focus on strengthening their ability to develop generative relationships with other stakeholders, a process that will help them to create resilient networks of participants able to adapt and navigate collaborative engagements successfully. This requires that designers focus less on designing and facilitating methods, and instead engage with others as equal participants. This may be difficult for them to do, as it requires that they share control, practice self-awareness and are vulnerable in front of others, a process that can destabilise their sense of identity and leave them feeling fragile and defensive.

However, if designers shy away from this approach and instead rely on mechanistic methods to facilitate collaborative engagements alone they run the risk of perpetuating problematic power imbalances and practices. Without first establishing generative relationships, it is easy for them to dehumanise and objectify stakeholders

who are different to them, particularly those they consider as “users” or “beneficiaries” of a design outcome, typically viewing them as elements in a design process to be probed, categorised, stereotyped, theorised and manipulated in order to produce a desired design outcome. This approach robs individuals of their agency and personhood, an oppressive act that negates Social Innovation and can further contribute to animosity and distrust between stakeholders. It is through the recognition of a shared humanity that we can move closer to one another, crossing social boundaries in an attempt to reconcile our differences and collaboratively design our future.

The findings of this thesis highlight the importance of establishing generative relationships in a separate preliminary phase (pre-project) before starting a cross-boundary collaborative design engagement. This is a phase that other design scholars have made reference to²³, yet none has clearly articulated its importance or provided a comprehensive outline. Thus, the second contribution of this thesis is an in-depth and comprehensive outline of the pre-project phase, which comprises two sections: establishing and maintaining relationships. Each of these contains a collection of recommendations, activities and elements that ensure the effectiveness of cross-boundary collaborations.

Before we continue it is important to answer the question some may ask with regard to why this phase is separated from the design process when it could be done in conjunction with the other. Those interviewed explained that when working with disparate stakeholders it was much harder to establish generative relationships due to the vast differences between them. Therefore, more time and energy must be dedicated to this process to ensure these relationships were able to form properly. If it was combined with the ideation phase, a conflict of interest often occurred and resulted in a mediocre attempt at completing both tasks. For example, activities that promoted relationship-building (self-reflection, sharing personal stories, mutual learning and exchange) flourished when there was no pressure to develop a design

²³ The work done by the Namibian and Australian cross-cultural participatory design projects (Brereton et al., 2012; Winschiers-Theophilus, Chivuno-kuria, et al., 2010).

solution, because it allowed participants the space to focus on getting to know one another. Some of the most successful relationship-building activities were informal, such as eating together, storytelling, hiking, drinking coffee and visiting each other's homes. The power of these activities resided in the fact that there was no facilitator or workshop process asking the participants to engage with one another. This was an act of authenticity done in their own time and because they genuinely wanted to get to know one another.

On the flipside, if participants entered a design workshop without having first established generative relationships this often slowed the design process, since there was a higher chance that miscommunication and conflict would occur. When it did, facilitators spent a large amount of energy and time mediating disagreements. This resulted in a shift from developing design solutions to facilitating group dynamics, which could have been avoided if generative relationships, a group culture and safe space had been created before starting a design engagement.

The above challenges highlight the need to separate these phases by first dedicating time to establishing generative relationships and a group culture before starting a design engagement, so that when the group moves into the collaborative process, it can focus on designing innovative solutions without the stress of managing social dynamics.

This is not to say that relationships cannot grow and develop within the collaborative design phase. Indeed, that is what the pre-project phase hopes to support. It does so by providing organisers with an opportunity to put measures in place at an early stage, helping to nurture these relationships and prevent future breakdowns from occurring. Thus, the pre-project phased described in this thesis is broken into two parts, establishing relationships and maintaining them. The first section is comprised of internal activities that focus on practicing self-awareness and reflection, examining our biases and intentions, becoming comfortable with shared control and constructive personal feedback and respecting different cultural believes. This is combined with external activities that help to establish relationships, which include formal and

informal activities that promote personal sharing, storytelling, cultural exchange, mutual learning and financial investment in local communities. These activities are often facilitated by “bridging” stakeholders who are positioned in multiple worlds and thus able to mobilise, connect, prepare and mediate the coming together of participants. All of these activities help to establish common ground and develop generative relationships across social divides.

The second section of the pre-project is focused on activities that help to maintain relationships, such as establishing a group culture, developing a safe space, clarifying the projects intentions and outcomes, aligning expectations and timelines, discussing issues of ethics such as payment and confidentiality. These all help to provide transparency at an early stage in the project, allowing stakeholders to leave before the process begins if they disagree or were misinformed, and preventing future breakdowns and disagreements from occurring and negatively impacting the collaboration.

This section also focuses on the danger of creating dependency as an external designer and the importance of developing an “exit strategy” within the pre-project phase. Stakeholders are encouraged to discuss ways that they can support a smooth transition and the maintenance of a design idea once the external designers have left. This strategy should also factor in the importance of maintaining relationships once the project has ended, as many local stakeholders find the exit process a painful and heart-breaking experience.

It was also recommended that organisers connect with gatekeepers who are stakeholders whose primary role is to provide external participants access and guidance into a local community, ensuring that they do not cause harm or disrespect cultural practices. They do so by revealing nuanced local social protocols that are hard for external stakeholders to understand, encouraging them to act in respectful and generative ways. They also provide local stakeholders with a safe space to complain and call out any unethical behaviour. Bridges and gatekeepers help external designers appropriate and adapt design methodologies within the pre-project phase to suit the

context and community, which is imperative if the design process is to be inclusive and equal.

These two sections make up the bulk of what was discussed by interviewees with regard to developing generative relationships within the pre-project phase²⁴. It is also important to note that for this thesis these sections and their activities were placed in a formal order, but in reality they often worked in conjunction with one another, or in different orders, depending on the context and group of people. For example, many interviewees recommended that stakeholders begin the pre-project phase with a self-reflection process in order to enter an engagement and context aware of their internal biases and judgments towards others. However, the process of self-awareness should not end there, but can be approached as an ongoing personal practice integrated throughout the process. Some of the mutual-sharing activities not only helped to establish relationships, but also contributed to the formation of a group culture because the act of personal sharing helps to highlight the contrasts of culture and understanding within the group, assisting in the negotiation and establishment of common ground. There are many other examples of ways the pre-project phase could be shifted and structured. However, the most important thing to remember is to pay attention to what the group needs, rather than blindly following the process outlined in this thesis. Without appropriating methodologies to suit the context or ignoring the group dynamics, organisers and facilitators can fall into the same trap as that of the methodologies section, where a mechanistic approach is favoured over an intuitive one, leaving the process hollow and outcome shallow.

The researcher offers her findings and subsequent practical recommendations²⁵, as a way to deepen the academic literature in this area of research and support the practical application of its findings in the field helping to strengthen cross-boundary collaborative design for Social Innovation and support the Social Design and Social Innovation community both locally and abroad.

²⁴ For a comprehensive outline of the individual activities and their importance, see Table 10.

²⁵ These recommendations can be found in appendix D.

5.3 Implication of this study

This thesis hopes to contribute to the Social Design and Social Innovation community in several different ways. First, it supports the call by other scholars in the global South to place more emphasis and importance on the pre-project phase when engaging in cross-boundary collaborative design projects, with a further focus on the importance of establishing generative relationships in this stage. Despite the findings of this thesis and supporting research by other academics, this phase is rarely backed by funders, or implemented by designers. This is mostly due to the fact that when compared to the design phase it is seen as a vague process with intangible outcomes, which makes it hard for organisers to describe and justify in funding proposals or to clients. In addition, designers often feel uncomfortable, frustrated and impatient when engaging in activities with no design outcome because they are not used to focusing on the “softer” or social side of participation and collaboration. This often results in a rushed attempt at developing relationships so that they may quickly move on into the familiar design phase (Kapuire et al., 2015; Peters, Winschiers-Theophilus, Awori, et al., 2014).

This thesis attempts to make this “invisible” work “visible” by communicating in a language designers, funders, organisations and institutions will understand in order to draw attention to its importance and raise support for its implementation. The first dialect is in the form of an academic research thesis that provides evidence and academic legitimacy with regard to its impact and importance in a cross-boundary collaborative process. This helps to support and strengthen the current body of literature on the topic in an attempt to institutionalise it within the Social Design field. The next is in the form of a practical application of the findings²⁶ that is aimed at formalising and structuring the current informal process and activities described by other academics. It hopes to provide design practitioners with concrete ideas and activities to draw from, which will hopefully ease their discomfort when engaging in this phase due to its lack of structure and design output.

²⁶ These recommendations can be found in appendix D.

Second, this thesis hopes to raise the critical consciousness of social designers both locally and abroad, especially those educated in the dominant western paradigm of participatory design, and who come from a privileged social position and wish to work within foreign contexts in the global South around social issues that do not directly affect them. Since these designers are in a position of power and come from a legacy of dominance, without critical reflection or awareness, they run the risk of perpetuating problematic and oppressive paradigms such as the “saviour complex”. This can further deepen the distrust, anger and pain between disparate people in post-colonial or post-apartheid contexts (Akama et al., 2015; Bardzell, 2010; Brereton et al., 2015; Janzer & Weinstein, 2014; Lucena et al., 2010; Muller & Druin, 2001; Nussaum, 2010; Tunstall, 2013; van Stam, 2013).

However, it is not easy for those from a dominant social paradigm to see their worldview clearly, as they may have never had to do so and view it as the norm. The researcher hopes that this thesis may trigger the beginning of this awareness, or contribute to a deeper understanding and personal practice. Indeed, this thesis emerged from the researcher’s own desire to further understand her role as a privileged designer, in an attempt to limit her own internalised bias and potential to perpetuate oppressive paradigms - something that she witnessed and enacted in previous Social Design projects that left her feeling confused, angry, paralysed and ashamed. While the findings of this thesis leave her with more unanswered questions, it has served to provide her with some solutions in her search for ways to engage meaningfully in social change and innovation as a design activist, and hopes that it will support others in their journey too.

This thesis supports the call by other academics to deepen the relationship between the Social Design field and the social sciences, since social designers are now required to understand topics that have not been traditionally integrated in design education. They feel that this type of education can help to prepare designers to engage in respectful, impactful and ethical ways with other foreign stakeholders (Margolin & Margolin, 2002; McMahon & Bhamra, 2012; Melles et al., 2011), given that without a deeper understanding of research methods that help to reveal culture, such as rapid

ethnography or cultural models, there is a high chance that their novice understanding may result in shallow, unethical and problematic practises placing the other stakeholders' wellbeing at risk (Blomberg & Karasti, 2013; Brereton et al., 2014, 2015; Van Boeijen & Stappers, 2011; Winschiers-Goagoses et al., 2012). Thus social design scholars have suggested that this connection can be strengthened in two ways. The first involves integrating relevant social science research and topics into the design curriculum at university level, raising designer's awareness with regard to the social side of design engagements and deepening their practice (Lucena et al., 2010; Margolin & Margolin, 2002; McMahan & Bhamra, 2012; Melles et al., 2011). Alternatively, the researcher and interviewee suggested that social designers can simply partner with professional social scientists when engaging in a collaborative project. This then allows designers the space to focus on the design process alone, confident in the knowledge that others with a better understanding of the social aspects of the collaboration will be in charge of these processes.

5.4 Future research

Four different themes emerged from the findings that the researcher wished to explore further. However, given the time and length of her thesis, she was not able to do so. She offers them to other design academics as starting points for future research.

The first theme is the "exit strategy", which has been briefly discussed in the findings section but was not fully explored. This phase has been described as the process of ending a collaborative design engagement. More specifically, this happens when foreign stakeholders exit a community and leave the design project and their relationships behind. This is a difficult process that design academics and practitioners are aware of, yet there is limited literature or best practices on the topic (Melles et al., 2011; Mulgan, 2014; Taylor et al., 2013). One of the main challenges is that of dependency, since a large focus is often placed on the development of a design idea or solution, yet limited energy or thought is spent on its implementation or sustainability (Melles et al., 2011; Sabiescu et al., 2014). Social designers enjoy coming up with solutions, but often lack the capability, interest or incentive to implement

ideas. The reason for leaving a context and ending their engagement is not always because the process is finished, but because funding, time and resources have run out, or they have achieved their personal goals such as developing or testing a prototype for a design competition, finishing a design workshop, completing an academic paper or university degree (IDEO, 2015; Lucena et al., 2010; Mulgan, 2014; Peters, Winschiers-Theophilus, Awori, et al., 2014; Sanoff, 2010). If measures are not put in place to ensure that local stakeholders can continue to implement and maintain a design idea, they are left in a state of dependency waiting for the designers to return (Melles et al., 2011; Peters, Winschiers-Theophilus, Awori, et al., 2014; Taylor et al., 2013). However, the researcher and interviewees have observed that foreign designers rarely return and are held accountable for their unethical or harmful actions. They leave broken ideas and false promises behind, which deepens the anger and animosity local stakeholders feel towards external designers as their hopes for a better future are dashed.

The researcher feels that one of the reasons foreign designers do not return is that they have not developed generative relationships with local stakeholders, thus they seldom feel a connection with the community and lack a sense of commitment or urgency to return and complete the project. However, even if designers do establish these relationships with local stakeholders this process of separation is still hard, as it can engender feelings of pain and heartbreak when designers depart and local stakeholders are left feeling forgotten and abandoned (Kapuire et al., 2015). This pain of this difficult and unavoidable process can be reduced if local stakeholders are made aware of the departure with ample time to prepare, and are offered alternative forms of communication in order to stay connected.

All of these challenges can be avoided if designers discuss their “exit strategy” with stakeholders before they start a design process to help prepare everyone for their departure, ensuring that the pain and dependency is reduced and design ideas sustained. There is limited literature and best practice regarding this topic. Hence the researcher, interviewees and other design scholars (Melles et al., 2011; Taylor et al., 2013) and interviewees have stressed the importance of better understanding this

phase in order to ensure the sustainability and success of a project once it is over. Generative relationships that have formed within the process must be protected and the animosity toward future or returning designers limited.

The second theme relates to payment of participation within a collaborative project, a topic that was briefly discussed within the findings. There is also limited literature on this topic and best practices. Yet there has been a call from scholars to better understand this topic, as it can impact the quality of the collaboration and relationships between stakeholders (Kapuire et al., 2015; Thorpe & Gamman, 2011; Winschiers-Theophilus et al., 2015). Designers and professional stakeholders are often paid for their time and expertise, whereas informal stakeholders or users are asked to volunteer theirs. This is an unequal practice that the researcher assumes has been influenced by the following factors. The first is that many social designers²⁷ make a living from Social Design projects and are therefore the ones to organise and start engagements and write their salaries into their funding proposals, or work as paid consultants for organisations and companies. In these projects, the researcher feels that local stakeholders are often viewed as beneficiaries of the final design solution, which is then seen as a form of compensation. In addition, designers feel participants benefit in non-monetary ways from the design workshops, which are seen as improving their personal development and providing them with design and technical training. Yet the researcher and those she interviewed questioned if personal development is of value to financially stressed communities, where their participation in a collaborative process can prevent them from working to financially support their family and community. Threatening or placing pressure on their livelihood is something that “personal development” cannot provide.

Interviewees also told the researcher that funders rarely supported the action of paying participants, since they believed that payment influences the quality of participation, fearing that local participants or users would only engage in a collaborative project for the money, instead of a desire to develop solutions.

²⁷ Well-known International design agencies involved in Social Design projects include: IDEO.org (www.ideo.org), Think Public (www.thinkpublic.com), Frog Designs (www.frogdesign.com) and Dalberg (www.dalberg.com) to name but a few.

However, the researcher feels that this may only apply to projects with little community buy-in, where participants are forced to contribute to a design solution that they feel is not of value to them. Otherwise, the researcher and interviewees felt that this opinion is a problematic assumption with little evidence to prove its legitimacy, but rather reflects a global bias towards valuing educated people's time over those who hold informal knowledge. This only deepens the power imbalance between the different stakeholders, as the act of paying the designers indicates that their skills are seen as being more valuable, while devaluing the participation of informal local stakeholders whose knowledge is just as important, if not more critical, to the sustainability and relevance of the design outcome. This inequality within the group can further impact the participants' ability to develop generative relationships with one another. It is important that further research is conducted in this field of interest, so that cross-boundary collaborative design projects may be equal, ethical and the establishment of generative relationships allowed to flourish.

The researcher also wished to highlight the additional complexity added to cross-boundary collaborative design projects when partnering with government, a topic discussed by many interviewees, since many participatory projects were linked to local or provincial government. However, due to time constraints it was not possible for the researcher to explore this topic. Some of the common challenges included the incompatibility of internal structures when compared to a participatory approach, given that they were inflexible and top down, leaving their engagements rigid, which impacted the quality and length of a collaborative process. They were often in a position of greater power to that of the other stakeholders, given that they could provide resources and infrastructure to successfully implement design ideas. In turn, project organisers often felt dependent on their support and thus allowed them to participate in any manner they saw fit, even if this compromised the integrity of the collaboration and angered other stakeholders who felt frustrated by the imbalance of power. Their political "baggage" and agenda followed them into a collaborative process, which meant that many other stakeholders simply refused to collaborate with them for personal, ideological or political reasons. This was a difficult task for those organising the collaborative process to mediate and one that threatened to

break their established relationships with other stakeholders. All of these challenges highlight the difficulty of collaborating with government in a design engagement, a process that is complex and one that the researcher feels deserves further academic attention.

Lastly, it is important to note that the findings of this thesis have focused mostly on collaborative engagements, specifically between foreign or external designers working with established communities. While the researcher did not intentionally seek these types of engagements, given the nature of social design, these types of projects are some of the most common in the field. However, she also recognises that not all cross-boundary collaborative projects are structured in this manner and some comprise a collection of individuals who gather around a topic of concern. In these engagements, there is less of a defining divide between insiders and outsiders, as stakeholders have come together from different contexts. Thus, she feels that only some of what has been mentioned in this thesis may apply to these projects. There may be other factors that ensure the success of these types of engagements that this thesis has not discussed, providing an opportunity for other design academics to explore this topic further.

5.5 Limitation of this study

The first limitation of this research was the restricted time allocated to the data collection phase, which impacted the sample size of those interviewed. While the size was relatively small with only 32 interviewees and a further 17 individuals who participated in the focus group (ten that had been previously interviewed and seven new participants), the researcher ensured that a large range of diverse social backgrounds and perspectives were present. This helped to guarantee that the findings did not bias one type of person and their viewpoint, but emerged from the collective insight of a number of people.

Most of those interviewed were South Africans and the projects they spoke of were based in an urban Cape Town context. This could be described as a second limitation,

given that these findings are somewhat context specific and their implications limited to a South African Social Design community. However, the researcher believes the findings of this thesis can support projects in other post-colonial cities positioned in the global South because these contexts share similar social landscapes and historical legacies to that of South Africa. This claim is further supported by the fact that her findings already connect to other cross-boundary Participatory Design projects based in Namibia and Australia. One can only speculate if these findings can support cross-boundary collaborative projects elsewhere, yet with the hyper-connectivity of globalisation, rise in immigration and growing economic inequality, more projects all over the world will face similar challenges when working across difference social boundaries. The researcher therefore feels her thesis may help to inspire other designers to think about these challenges and better prepare themselves in a fast-changing world.

The third limitation of this thesis was the impact the researcher's own social identity and position could have had on the information she obtained in the interviews. Most of the interviewees did not have an established relationship with her. This could have impacted the authenticity of information, either resulting in the interviewees tailoring the conversation to suit what they thought she might want to hear, or omitting information that they feared would paint them in a negative light. This was something that the researcher could not prevent, but she hoped that her open demeanour and language in the interviews helped to encourage honest sharing.

It should be noted that not all of those interviewed could come to the focus group and of those that did participate most of them were design practitioners. Thus, this perspective heavily influenced the conversation and in some ways led to the focus on the pre-project phase because these practitioners felt they knew a lot about the design phase, but little regarding the pre- and post- stages surrounding a collaborative project. However, the researcher does not feel that this perspective negatively impacted the thesis, as the subsequent findings and conclusion of this research remained relevant to a wide audience and adequately answers the research question.

6. CONCLUSION

It is clear that there is much value in building generative relationships between socially disparate stakeholders before starting a collaborative design engagement. These relationships help disparate participants build trust, establish common ground, improve cultural understanding and navigate differences and disagreements with one another successfully, all of which are elements that are essential for an effective cross-boundary collaborative design process. Building generative relationships is also a process that supports Social Innovation in both its ends and means, since these relationships help participants to produce relevant, sustainable and innovative design outcomes, while establishing networks of connected and capacitated individuals resilient in the face of growing social complexity.

Some may argue that this hypothesis is simple and obvious, and this may be true in other fields of research. However, it was only until recently that Social Design scholars began to place emphasis on its importance. The researcher attributes this to the fact that building and maintaining relationships with others is difficult, intimidating, anxiety provoking and complex, since it requires constant attention and work, as these interactions are always evolving. Designers often focus instead on things they can control, such as the design process, which has resulted in many different design methodologies, toolkits and activities that all help generate design ideas and products. While it is useful to support one's work with formulas and toolkits, these methodologies are no substitute for generative relationships, which are at the heart of collaboration, and without them there is no meaningful design process to implement or facilitate.

The researcher recommends that instead of focusing all their attention on developing, facilitating and learning new design methodologies, designers strengthen their capacity to build and maintain interpersonal relationships with others who are very different to them. This process can feel impossible and idealistic in a South African context, where the legacy of colonialism and apartheid has resulted in social inequality, distrust and animosity between the country's citizens who find themselves

divided across different social boundaries. However, the narratives recounted in the data highlight ways ordinary South Africans are crossing these boundaries and forming relationships with one another, despite their differences.

While these moments give us hope and provide concrete examples of how others can start to form these types of relationships, it is important to recognise that the collaborative design process does not exist in a vacuum, but is placed in a broader societal context. This requires reconciliation and societal shifts on multiple levels, before establishing generative relationships can become an easy process. Yet waiting for these external shifts to occur should not be the reason designers hold back from engaging and building generative relationships with others. Instead, they need to accept that the process may feel awkward and even destabilising at times, as their sense of identity and belief systems shift - which the researcher has experienced firsthand. However, pushing through and moving outside of their comfort zone in an attempt to build these relationships is a worthwhile process, as these relationships help to ensure that the collaborative process is meaningful, deep, respectful, safe and equal for all who participate. The researcher believes this will help to produce socially innovative design outcomes and may contribute to shifting and levelling power imbalances in reality.

The researcher hopes that her thesis and the practical application of the findings²⁸ will provide other social designers, both locally and abroad, with ways they can deepen their design practice and contribute to Social Innovation. This process has shifted her own practice and understanding of collaborative design engagements, where she now starts from a place of building relationships with others, instead of identifying challenges and developing solutions immediately. This is something that is not always easy to do, as it requires a shift in the way one works, but will ultimately improve the quality of the engagement, design outcome and contribute to Social Innovation.

The researcher offers her thesis as a “thought piece” for others in the Social Design community to discuss, debate and unpack, but warns against viewing the findings as a

²⁸ These recommendations can be found in appendix D.

fixed formula or methodology that will guarantee success. This is an unrealistic expectation and desire, as nothing is ever fixed and the sooner a designer can make peace with the idea that they will always need to be adaptive in order to navigate our complex world, the better. The researcher realised this as she started this journey wanting to find hard answers to questions regarding the “correct” and “right” role she should play as a South African social designer from a privilege social position. Instead, she has left the process with the understanding that these questions will remain with her as she searches for the balance between self-awareness and action, where there are no “right” answers, just personal growth, self-reflection and finding support in the communities and relationships we build with others.

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Appendix A.

Interview guide

Interview preparations:

1. Set up space:
 - Find a quite, calm and clean space
 - Set up recording device
 - Make sure interviewee is comfortable with being recorded
 - Explain that all information will be kept confidential and anonymous

2. Research description:
 - Introduce myself and my research
 - Rough explanation:

I wish to explore successful examples of cross-cultural collaborative design focused on developing solutions that contribute to social innovation in a South African context.

 - I would loosely describe collaborative design as the process of bringing together different stakeholders to collaborate in a democratic way when developing design solutions
 - I will be looking specifically at projects that work with very different people from disparate backgrounds. There is little research done on this topic and I hope to contribute more knowledge in this area.
 - Social innovation can be described as new ideas that simultaneously meet social needs and create social relationships or collaborations. In other words, they are innovations that are both good for society and enhance society's capacity to act.

3. Aim of interviews:
 - The aim of the research is to identify common practices and themes that emerge from the data. I hope to then compile these themes into a framework and meta-practise that others can use when engaging with collaborative design processes.

4. Get written consent forms
 - Print forms and have them ready
 - Answer any questions the interviewees may have
 - Explain the appreciative approach

5. interview questions:

- General interview questions:
 - Please state your name
 - Tell me what organisation you work for
 - Explain your position within or relationship to the organization
 - What does the organisation hopes to achieve?

- Key questions:
 - Describe a time in your organisation when you felt most engaged.
 - Tell me a story of a time when you felt especially innovative when working with a group of diverse people in a collaborative design process.
 - Describe the most powerful and positive design partnership you have had with someone from a disparate background. What do you think contributed to its success?
 - What has been your greatest learning from a participatory collaborative process?
 - Describe an effective collaborative method that you have used or seen others use when working with groups of cross-boundary stakeholders.
 - What advice would you give the different stakeholders before they enter a collaborative design process?
 - What methods do you use to manage conflict across the social divide during a collaborative design process?

6. Closing

- Check if there are any additional comments
- Remember to ask the interviewees to suggest a person that I should speak to next
- Ask if they would be interested in attending a focus group
- Ask them if they would like to receive the results of this information

Appendix B.

RESEARCH ETHICS: CONSENT FORM

Principal Researcher: Orli Setton

Project Title: Cross-boundary collaborative design for Social Innovation

This research study aims to explore successful stories and moments of cross-boundary collaborative design for Social innovation in South Africa. The researcher aims at identifying any common patterns and relationships between the data in order to develop a hypothesis regarding what fosters successful cross-boundary collaborative design. The research ultimately aims at providing others with a loose guide when engaging with cross-boundary collaborative design for social innovation.

	Please Initial Box
I agree to take part in the above study	
I confirm that the researcher has explained the nature and extent of my engagement to me.	
I understand that my participation is voluntary and that I am free to withdraw at any time, without giving reason.	
I understand that anything said in this interview / focus group will remain anonymous and confidential and that my name will not be used in the written thesis.	
I agree to the interview / focus group / consultation being audio recorded	
I agree to the use of anonymised quotes in publications	

Name of Participant

Date

Signature

Name of Researcher

Date

Signature



Appendix C.

Collaborative design toolkits

The researcher used the following toolkits in combination with academic papers (Brandt, Binder, & Sanders, 2013; Crabtree, 1998; Gaver, Boucher, Pennington, & Walker, 2004; Mattelmäki, 2008; Sanders, Brandt, & Binder, 2010; Sanders & Stappers, 2014; Winschiers-Theophilus, 2009) when researching the common activities employed in collaborative design processes that helped users and designers cross the cultural and communication barriers. She then summarized these activities which can be seen in table 11. *Comparative summary of a communication methods-based approach versus a generative relational approach*

Toolkits

Name	Access
IDEO HCD Toolkit (Second edition)	www.botfl.nd.edu/Readings/IDEO-Human-Centered-Design-Toolkit.pdf
IDEO The Field Guide to Human-Centered Design	www.designkit.org/resources/1
Standford d.school The Bootcamp Bootleg Design Thinking Toolkit	www.dschool.stanford.edu/resources/the-bootcamp-bootleg
Frog Design Collective action toolkit – groups make change	www.mays.tamu.edu/wp-content/uploads/2016/12/01.FROG-Collective-Action-Toolkit.pdf
Design Can Do	www.designcando.org/toolkit.php
Design with Intent: 101 Patterns for Influencing Behaviour Through Design	www.designwithintent.co.uk
Project H Design Revolution Toolkit	www.impact.sva.edu/core/wp-content/uploads/2010/06/DesignRevolutionToolkit.pdf
Nesta DIY toolkit Development Impact & You – practical tool to trigger & support social innovation	www.diytoolkit.org/media/DIY-Toolkit-Full-Download-A4-Size.pdf
The Social Design Methods Menu	www.luckykimbell.com/stuff/fieldstudio_SocialDesignMethodsMenu.pdf
Health Services Co-design guide and toolkit	www.healthcodesign.org.nz

Academic papers:

- Brandt, E., Binder, T., & Sanders, E. B.-N. (2013). Tools and techniques: Ways to engage telling, making and enacting. In *Routledge International handbook of Participatory Design* (pp. 145–181). New York, NY: Routledge.
- Crabtree, A. (1998). *Ethnography in participatory design*. Paper presented at the 1998 Participatory Design Conference, Seattle, Washington, 12-14 November.
- Gaver, W., Boucher, A., Pennington, S., & Walker, B. (2004). Cultural probes and the value of uncertainty. *Interactions - Funology*, 11(5)(September to October), 53–56. <https://doi.org/10.1145/1015530.1015555>
- Mattelmäki, T. (2008). Probing for co-exploring. *CoDesign*, 4(1), 65–78. <https://doi.org/10.1080/15710880701875027>
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- Sanders, E. B.-N., & Stappers, P. J. (2014). Probes, toolkits and prototypes: Three approaches to making in codesigning. *CoDesign*, 10(1), 5–14. <https://doi.org/10.1080/15710882.2014.888183>
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Appendix D.

Practical application of the findings:

The following sections will highlight some of the general practical recommendations made by the researcher with regards to the findings of her thesis. In particular, it will outline practical ways the pre-project phase can be implemented into a cross-boundary collaborative design engagement that supports Social Innovation.

These outlines and subsequent recommendations are mostly aimed at social designers, social entrepreneurs, and organizers who wish to work or implement collaborative projects in contexts that they are unfamiliar with and in partnership with people (users) from very different social backgrounds to them. In this way, the researcher hopes her thesis and its findings can contribute to deepening the collaborative practices in the social design field by helping to promote impactful, ethical and innovative processes that produce socially innovative design solutions and contribute to social change.

Bear in mind that the subsequent recommendations are a draft version of an in-depth toolkit the author aims at developing, in collaboration with other social designers at a later stage. She also plans on developing an open-source website dedicated to cross-boundary collaborative design for Social Innovation, where the toolkit will be housed along with other resources for designers to download. The business model for the website can be seen on the proceeding pages.

Establishing generative relationships in the pre-project phase

The following section outlines important activities used by interviewees to help disparate stakeholders develop generative relationships with one another in the pre-project phase.

1. Self-awareness and reflective activities:

- Journaling
- Intentional listening activities
- Personal reflection activities
- Provides spaces for constructive feedback
- Activities that highlight social privilege and personal bias
 - e.g. Privilege lines or circles

2. Personal sharing and exchange

- Formal sharing activities (e.g. ice-breakers, storytelling, sharing hopes, fears, and expectations)
- Informal sharing (e.g. eating together, hiking, coffee breaks, driving together etc.)
- Cultural exchanges (e.g. visiting each other's homes, sharing traditional food, music, song and dance etc.)
- Teaching exchange (e.g. teaching each other different languages, making things together, learning new skills)
- Invest in the local community by using local businesses and hire local people to help with the design workshops (e.g. local catering, tour guides, translators, facilitators).

3. Bridges and connectors

- Partner with local stakeholders who can mobilize local participation and help connect you to influential community members.
- Hire a skilled facilitator who is able to move between the different perspectives and worlds with ease.
- Employ the use of activities and objects that can help bridge the social divide (e.g. Johari's window, poster design, electricity cord)

The pre-project logistics checklist:

The pre-project logistical checklist is aimed at organizers and designers who wish to set up collaborative design engagements with disparate stakeholders in order to produce socially innovative design outcomes. The checklist outlines a list of important things to consider before starting the design process that can help to ensure the success of the design engagement and the maintenance of generative relationships throughout the collaborative design process.

Checklist:

Consider the following points:

1. Participants:

- Write a list of those invited to engage in the project and then run this list past other people to see if you have missed important role players and to make sure that the list does not reflect a personal bias.
- If you want to attract a diverse group, make sure that you promote your event on different communication platforms (e.g. email, radio,

local newspapers, word of mouth, community partners, and personal invitations).

- Consider partnering with local organizations who can help solicit participation and connect you to the right people.
- In order to prevent tokenization, make sure that there is roughly an equal amount of representatives from each stakeholder group.
- Venue and time:
 - Make sure you select a venue that everyone can access
 - Select a time that will suit all the different participants. (Factoring in transport and traffic time)
 - Put funds aside that can help participants with transport money if they cannot get to the venue. This will help to ensure everyone can come to the meeting and participate equally.
 - Ensure the venue is a place where everyone feels comfortable and is somewhat neutral, e.g. it is not held in a space that has historically or currently discriminated against a group of people or biases one group of people over another.
 - Find out from the different stakeholders their timelines and availability, so that you can plan the future design engagement around them, which can help prevent participants from becoming frustrated and angry during the design process (e.g. discuss with community members the time it will take for government to implement a new project, making them aware of bureaucratic processes and timelines)
- Safe space
 - Remember to discuss the use of personal information in the project and provide a space for the participants to ask questions about this before you start.
 - Remember to engage in a discussion regarding confidentiality and remind the stakeholders that what is discussed in the workshop should remain confidential.
 - Hire a trained facilitator who can monitor the groups, ensuring that everyone has a chance to speak and prevent any hostile or aggressive interactions from occurring.
 - Make sure to accommodate all the different participants needs (dietary, access, religious) in the upcoming design workshop.
 - Act quickly in shutting down and discouraging narrow-minded and prejudiced behavior from the participants towards one another.

- With the group, develop and discuss a group culture, which can be described as a set of “rules” agreed upon by the group that will govern their behavior in the future collaborative design process.
 - Remind everyone to hold an open attitude and move out of their comfort zone when engaging with different people.
 - Consider playing ice-breakers and team building games that help with creating a safe and welcoming environment.
 - Think about integrating informal socializing opportunities into the design process, like coffee breaks and supper together, so that the participants will have a chance to get to know each other better.
- Facilitator:
 - Think about hiring a trained and skilled facilitator that has experience managing groups and running workshops. They should know how to set up a safe space and deal with any cultural misunderstandings and clashes.
 - If you hire a facilitator, consider finding someone who can cross the different social boundaries of the stakeholders present and is seen as somewhat "neutral" by the group (e.g. they understand the different cultures and backgrounds of the people in the room and will not appear to bias any one person’s perspective.)
 - Choose a facilitator who is an appropriate fit for the topic under discussion and whose presence will not limit participation (e.g. not hiring a male facilitator to run a workshop with women around gender violence as his presence may threaten the safe space and limit the woman from participating.)
 - Make sure the facilitator communicate with everyone, or hire a translator if one is necessary.
 - If you have chosen to ask the designer to be the facilitator and they are inexperienced, then it is recommended to train them in the art of facilitation before they start or at least provide them with a guide to facilitate successfully (From these findings, it is not recommended that designers play the role of a facilitator unless they had some experience of doing so).
- Ethics
 - Start by discussing the intentions, aims and expected outcomes of a project, which will help you to manage the participant’s expectations and clarify incorrect assumptions and information.
 - Be careful not to promise things to participants that you cannot deliver.

- Consider developing consent forms for participants to sign before they start.
 - Before starting an engagement, take some time to understand the local political and social landscape. This will help to identify whether the topic under discussion is taboo or not. If it is taboo, before bringing stakeholders together, make sure not to place anyone at risk physically or emotionally (e.g. like in the case of the police officers and shabeen owners).
 - Discuss payment for participation with the group before starting, to ensure transparency and prevent future upset or break downs from happening.
- Gatekeepers
 - Consider partnering with a local organization who can act as a “gatekeeper”, which means that they can provide participants with a safe space to complain about things they are unhappy with regarding the project and your interactions with them, and to discuss solutions.
 - These gatekeepers can also help reveal the local social protocols of a space, helping you to adapt to the cultural landscape, respecting local protocols and avoiding upsets.
 - They can also help to adapt methodologies to suit the context and facilitate engagements to ensure successful boundary crossing.
 - Consider writing a guide book or manual with the gatekeepers, so that when new external people enter the project, they can be educated regarding the local protocols and not upset the established relationships or put the project in jeopardy.
- Exit strategy
 - Think about and plan for your eventual departure and discuss this with the other stakeholders, so that they can prepare themselves before you leave.
 - Remember to put measures in place to ensure the design outcome is sustainable (e.g. train local stakeholders to take over the project once you have left, or work with existing innovations and materials, so that the project can be easily sustained)
 - Take into account the emotional impact on those will be left behind. Think of ways you can continue to keep established connections once you have left a community or ended a project (e.g. start a Facebook or Whatsapp group so you can remain in contact).

Important things to remember:

1. Come into a project from a place of learning and not teaching.
2. Practice self-awareness and reflection, so that you can prevent your prejudices or biases from creeping into your engagements with others.
3. Think about your social position in society and social identity. Understand how this can affect others in the group and the project as a whole.
4. Don't be scared to reveal your authentic self to others in vulnerable ways. People respond well to vulnerability and it helps to deepen relationships and improve cross-boundary communication and understanding.
5. Be brave and move out of your comfort zone and share power with other people.
6. Don't isolate yourself from others but instead join in and engage at all possible moments.
7. Trust that your established relationships can help you move through times of conflict and difficult engagements.
8. Hold an open attitude and respect other people's cultures and ways of working even if it conflicts with your own. Be brave and discuss ways you can compromise with one another and establish common ground.
9. Don't be afraid to ask for and listen to critical feedback regarding your participation and engagements with others. Work on changing any problematic and negative behaviors.
10. Remember that building generative relationships with others before you start a design engagement will help you move closer to one another across the social divides and improve the future collaborative design engagements.

Business plan: Cross-boundary collaborative design resource website

Vision

My vision is to create an open source online cross-boundary collaborative design website, that will contain a range of resources to help deepen the academic knowledge and practical implementation of effective collaborative design processes for social innovation in a South African context.

Proposed website content:

- Academic articles and literature
- Practical tools, activities and case studies that support the effective implementation of cross-boundary collaborative design processes for social innovation
- Thought and opinion pieces
- An online community forum

The website content will be written and developed by the author from her thesis in collaboration with partnering organizations and individuals. The following pages contain some examples of the proposed future content.

The author will also promote and support the website by holding offline talks, workshops and short courses in the Social Design community, in order to further support the effective implementation of these types of processes. She also hopes to charge for these types of courses, where appropriate, and generate some revenue that will allow her to keep the website open-source and accessible to all. A full business model canvas can be seen on the following page.

Mission statement

The platform will:

- Provide social designers with relevant literature and tools that will help to deepen their knowledge and practice on the subject
- Provide educators with relevant content to integrate into their lectures and courses
- Provide academics with future research topics, academic articles and links to relevant literature that can help to support their own research
- Provide social entrepreneurs and other organizations with practical examples of how to conduct effective and ethical collaborative design processes when developing products and services that support Social Innovation

- Support and provide community leaders and members with guidelines as to how they can hold external designers and stakeholders accountable for their actions and ensure ethical and mutually beneficial collaborative processes

Objectives/ Strategy/ Action plan

1. March: Develop thesis into useful content for website and connect with partner organisations to develop additional resources
2. April: Start marketing and promoting website
3. May: Design and build website
4. June: Develop workshops and short course content from thesis and in collaboration with partner organizations
5. July: Promote and hold short courses and workshops at universities, conferences and private events.
6. Moving forward: Continue in this manner for the rest of the year; maintaining website, developing new content with partners and holding and attending offline events to simulate dialogues in the Social Design community both locally and abroad.

The Business Model Canvas: Open source cross-boundary collaborative design resource website

<p>Key Partners</p> <p>Social Design & Social Innovation organisations and agencies, such as:</p> <ul style="list-style-type: none"> • Creative Nestlings • Cape Craft Design Institute • Creative Cape Town • The A'lah company • Slowdesign • Bertha Centre for Social Innovation & Entrepreneurship <p>Universities that teach Social Design & Social Innovation courses, such as:</p> <ul style="list-style-type: none"> • University of Cape Town • Cape Peninsula University of Technology • University of Stellenbosh • AAA • The Hasso Plattner Institute of Design Thinking at the University of Cape Town (d-school) <p>Social Design & Social Innovation festivals and conferences</p> <ul style="list-style-type: none"> • Open festival • Design Indaba 	<p>Key Activities</p> <ol style="list-style-type: none"> 1. Develop an open source cross-boundary collaborative design online resource website 2. Conduct talks, dialogues and attend conferences off-line to promote the website and stimulate a discussion within the social design community 3. Give short paid courses assisting people to deepen their cross-boundary collaborative design practice 4. Write academic articles that will contribute to the Social Design academic literature and add content to the website 5. Partner with other Social Design & Social Innovation institutions and organizations in order to deepen the conversation and generate new content for the website 	<p>Value Propositions</p> <p>An open source online website that contains literature and practical resources on how to implement effective cross-boundary collaborative design processes for Social Innovation.</p> <p>The platform will:</p> <ul style="list-style-type: none"> • Designers and other stakeholders with information to deepen their knowledge and practice on the subject • Providing educators with content to integrate into their lectures and courses • Provide social entrepreneurs and other organizations with practical examples of how to conduct effective and ethical collaborative design processes when developing social innovations • Provide community leaders and members with guidelines as to how they can ensure ethical and mutually beneficial collaborative processes • Provide academics with resources and information to support their research and literature 	<p>Customer Relationships</p> <ul style="list-style-type: none"> • Connect with online Social Design and Social Innovation communities via website forum, blog, email, Face-book page and twitter • Connect with communities off-line via talks, workshops and conferences • Partner and connect with other organisations and individuals in order to develop new content for the website and deepen the cross-boundary collaborative design literature and practice 	<p>Customer Segments</p> <p>Social design and Social Innovation community:</p> <ul style="list-style-type: none"> • Social designers • Social entrepreneurs • Social design and Social Innovation agencies and NPOs • Social design and Social Innovation conferences, festival and Competition organizers <p>Academia:</p> <ul style="list-style-type: none"> • Social Design and Social Innovation students • Social Design and Social Innovation academics • Social Design and Social Innovation educators <p>Other:</p> <ul style="list-style-type: none"> • Local and provincial government • Community leaders • Non-profit organisations • Businesses • Individuals
<p>Cost Structure</p> <ul style="list-style-type: none"> • Cost of website design and development: • Author of this thesis is a graphic designer and can build the website for free • Cost of content development: <p>The content will be developed by the author from the findings of her thesis in combination with partner organisations and individuals who have offered to support this project for free</p> <ul style="list-style-type: none"> • Cost of website maintenance and marketing: <p>The author will maintain and promote this website for free in order to generate income and deepen the Social Design and Social Innovation communities</p>		<p>Revenue Streams</p> <p>Open source website:</p> <ul style="list-style-type: none"> • The website will not generate direct income, but may lead to request for off-line paid workshops and courses where the author will have an opportunity to generate revenue • The website may lead to consulting work, where the author can support other initiatives and charge for her time • The author will also actively organise and develop paid short courses and workshops to generate revenue that can support the development and growth of the website and further research 		