The stored wisdom: artefacts as gap minders between the "professional self", the "personal self" and other individuals
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Introduction

In recent years many debates have been raised around the issue of the relationship between design research and design practice. As the six year history of the Research into Practice conference can attest to, this relationship has prompted design researchers into an active dialogue. These discussions range from the particular to the general, but are always immersed in a fundamental tension between research and practice that many disciplines face. This tension can pull apart those who subscribe to a given discipline, however; it is also the force that can bring people together in wonderful and ground breaking collaborations. "Everybody knows that Hussein Challayan is a genius, but nobody knows why." (McRobbie, 1999)This quote about a fashion prodigy illustrates a tension between theory and practice resident in many disciplines but not least in the design areas where academic research is still a relatively young activity. Design researchers and practitioners often work in isolation of each other, trapped or immersed in their own daily realities of academia or industry. Differences in language usage and hierarchies mean that mutual concerns cannot be understood as such and that fruitful communication is hindered. Focusing on the design discipline, we propose that such tension acts as an interface between research and practice. This interface is often considered in the form of spoken or written language. At present, the negotiation of meanings through this interface does not always facilitate strong communication. Rather it can leave researchers or practitioners to work in isolation of each other, trapped in their own daily realities imposed by the academia and the industry.

In our respective research and practice in the fields of fashion design/sustainability and online design/gender we have experienced how academia and industry are sometimes very far apart, but also how the personal and professional identities in an individual may be hard to reconcile. Thus, we have identified a need to create an unbiased or rather 'uncontaminated' platform for discussions where the subject matter, such as environmental issues or gender, by nature may create political tensions or instigate feelings of guilt. This
Paper proposes the use of the artefact as a tool that can bridge the gap between researcher and practitioner, and between the professional and personal self.

Artefacts are non-intrusive message conveyers as they take part in their users' life by consent, and facilitate their daily existence. Moreover, artefacts are already situated within the context of both research and practice, whereas the verbal language is not always shared. The everyday object can function as an uncontaminated platform, because all of us have a seemingly banal relationship to it. Using the object as a starting point, we can share personal stories that in turn generate new stories. These stories give a human face to otherwise complex and abstract issues. Through the story we can understand our society and ourselves better. In this paper we discuss an opportunity to use artefacts - virtual and material - as a way to instigate safe spaces for discussion. We will show examples from our own respective research and from a series of experimental workshops to further illustrate our point, although at present our primary aim is to tease out discourses beyond the artefact that provide wider guiding frameworks.

Why is it important to mind the gap between professional and personal identities and between design practitioner and researcher? Well, design is or should always be about communication and relationships. Without functioning, healthy relationship between all actors involved in the design situation, design will not be truly helpful and inclusive. If we do not bring in our personal selves in the design practice and research, the professional outcomes will be void of the deeper engagement and ethical concerns that can be drawn from everyday human experiences.

Two design contexts

The following paragraphs highlight tensions that can arise when design researchers enter sensitive areas such as sustainability and gender. While we come from different design disciplines and our areas of interest are different, we noticed similarities in the attitudes we encountered discussing sustainability and gender, such as fear, cynicism, guilt, disassociation. Moreover, we noticed opportunities in how the artefact had been a helpful prompt to resolve possible tensions in the research situation.

From the World of Fashion Design - Mathilda Tham

If the present growth trends on world population, industrialisation, pollution, food production, and resource depletion remain unchanged, the limits to growth on this planet will be reached some time within the next 100 years. (Meadows and Meadows, 1972: 23)

This quote from "The Limits to Growth" was the conclusion of a major investigation into the mechanisms and environmental impacts of growth based industrial development. When first released, the report was criticised by media and the establishment for being "oversimplistic, alarmist, and for lacking faith in the restorative powers of technology". (Torgerson, 1995 as cited in Fletcher, 1999: 5) In a zeitgeist of technological determinism and materialism it appeared negative and anti-growth. But where economists and scientists called it a prophecy of doom, the authors pointed out that the report offered advice for alternative growth where both ecological and economic stability were catered for. (Meadows and Meadows, 1972; Fletcher, 1999: 5) The three following decades have brought us even closer to the limits to growth. The estimated reductions in resource and energy use necessary to avoid reaching (and exceeding) 'the limits' varies, but independent experts agree on a "Factor 10" reduction in the coming 40 years, i.e. that
consumption levels are reduced tenfold, in order for “… human needs are to be met equitably by the Earth's carrying capacity”. (Birkeland, 2002: 7)

The textile sector is among the industries that have most negative impact on the environment. (Cooper, 1992) The effect of the textile sector concerns all stages of a product's lifecycle and is especially high impact in the process and consumer use stages due to the large quantities of water used. (Cooper, 1992) Because of its scale, swift changes in trends, the short lifetime of products and the high impact of the user stage (because of laundering), the fashion industry is more damaging to the environment than the other textile sectors (such as furnishings). Swedish fashion company H&M alone handles 1/2 billion goods per year, employs 39000 people, not counting workers in factories worldwide. (H&M, 2002)

The sustainability imperative - of a 90% reduction in the impact of products and services - includes a key role for designers. Indeed, an estimated 80-90% of a product's environmental and economic cost is related to decisions made in the final design stage, before production even begins. (Graedel and Allenby, 1995; Fletcher, 1999: 17) However, integrating environmental concerns in the design process has been a choice for the individual company or designer as they remain largely untouched by legislation. Another area not directly targeted by legislation is the user stage of the clothing lifecycle (i.e. laundering), where in some cases up to 80% of damage actually happens (Franklin Associates, 1993).

Limiting sustainability concerns to just one part of the system increases the risk for a rebound effect. (Meadows et al. 1992; Fletcher, 1999) Kane (2003) describes the rebound effect as the phenomenon where “… reducing cost of one utility may increase levels of consumption of that utility”. Therefore, in order to achieve necessary reductions of resource use and waste, minimisation on a product and process level is not sufficient; the larger system must be addressed. (The World Commission on Environment and Development, 1987; Meadows et al. 1992)

Against this context, my own research is situated, it investigates the opportunities and tensions when the fashion industry, trend forecasting and sustainability meet and explores the potential of a modified version of trend forecasting tools to implement sustainability principles in the fashion industry. Although, this exploration is not completed, there are some emerging discourses, relevant to this paper. These are alienation, non-verbal communication and stereotypes.

In literature and in interviews with fashion professionals the concept of alienation has emerged as a dominant narrative. The philosophical ground for this alienation includes Marx’s ideas of separation between man and his tools (Marx, 1975); in Neo-Marxism focusing on the spiritual and social implications; in orthodox Marxism focusing on economic alienation (Pepper, 1996: 15) and in Merchant (1982) description of human beings gradually, through history, growing distant from nature. In the fashion industry the alienation is staged in fashion designers' geographical and psychological remoteness from the factories where their garments are produced but also in a lack of dialogue between producers and users. The gap between professional and personal identity in the fashion organism can be exemplified by the failure to actively question child labour in Asia by designers who themselves are parents, or by consumers' practice of seeking out healthy and organic alternatives in food, but lacking a similar awareness when it comes to fashion products. Another example is how luxury goods to be worn by an exclusive minority in the Western world are produced by a very poor majority (very often women) in the East.
Alienation, within people, between people and between human beings and nature is central to the problem of establishing more sustainable practices in the fashion industry, as it is not only part of the problem of unsustainability, but seems also to be reflected in dominating sustainability strategies. This notion of separateness is found among fashion professionals and sustained by still prevailing myths such as that of natural fibres and processes always being less environmentally harmful than synthetic fibres and processes. (Watson, 1991: 4) More sustainable alternatives have often had aesthetics that fail to satisfy a fashion conscious consumer. So far most genuine attempts at 'eco-fashion' (as opposed to many of the eco-looks of the late 80s and early 90s) have failed to convince the larger consumer group. The sustainability lobby have advocated solutions based on tools and techniques such as lifecycle assessment (LCA). However, these are rarely compatible to the fashion designer's process and tend to be extremely costly and time consuming to undertake, making it incompatible with the speed and wide range of output in the fashion industry. Likewise, the proposition of longevity is difficult to reconcile with fashion products. Fashion, with its nature of speed, omnivorousness, and its superficial 'image', is often considered anathema to sustainability.

Other discourses like non-verbal communication resonate with Jessel's (1998) study of how designers assimilate information and is sometimes represented by a lack of confidence some fashion designers express in relation to academia and science. This can possibly and partly be explained by McRobbie (1999) discussion on traditionally grounded existence of very little theory underpinning fashion industry. Finally, Stereotypes discourse refers to stigmas around environmental issues and around sound environmental practices (Fletcher, 1999) resident in the fashion industry. It is also present in attitudes towards fashion within the sustainability lobby. Together these discourses point to a need for communication that resonates with the experience of fashion design that can transcend clichés hindering a fresh and innovative outlook on both problems and solutions. However, these discourses describe a blocked situation where opportunities for positive change are hindered by a lack of integration of viewpoints and constructive dialogue. Two frameworks of belief systems have clashed. Through my research, I have perceived a need for a mediator to facilitate dialogue between these two contexts, and between the personal and professional identities in the fashion industry. The communication I envision should be free of stereotypes of sustainability or fashion and of guilt, and open to new interpretations and strategies.

In the Lifetimes Project Dr Kate Fletcher and Mathilda Tham used clothes as probes to unlock the underlying relationships between users, producers and artefacts with the aim to learn about how more sustainable practices can be implemented within these stakeholder groups. (Fletcher and Tham, 2003 and 2004) We asked users to document their relationships with a pair of jeans, underwear, a plain coat or a 'party top' using a camera and a diary. The resulting document draw out quantitative aspects of a garment's use, such as how many times it is washed and dried over a period of time. More importantly it reflects the qualitative aspects of garment usage, such as the experience of wearing clothes, the perception of hygiene and the construction of status within a group of people. The garments prompted a wealth of stories, linked to a pair of jeans or a coat but very much describing intimate experiences, fears and hopes of everyday life.

From the World of Online Publishing - Noemi Sadowska

Whiteley (1993) states, '…when you buy a product you are consuming a total mix of the product and its meaning.' (p. 138) Therefore, the historically grounded approach to women
in terms of design is reflected in the outcomes of that practice, where gender stereotyping results in a sexist portrayal of women and a disregard for them as end-users. (Buckley, 1989) In the world where products are bought as a confirmation of status or prestige, or as a fulfilment of a longing, the design process that creates these products contributes to the creation of an image of these outcomes. The production/design of that image is deeply rooted in the way society constructs and understands the meanings of its environment. Such systems by relying heavily on the use of gender constructs to define women’s positioning become a prime source of meaning creation for the consumer-led design. (Whiteley, 1993)

Using the argument that artefacts can act as interfaces between design researchers and design practitioners, I would like to give an example from a recently conducted qualitative research project focusing on the women's online publishing industry. In my research I used a virtual artefact, a commercially published women's online portal entitled BEME.com. The portal was generated by IPC Media (IPC), a global publishing house based in the UK. IPC represents what is considered the traditional or glossy sector of magazine publishing industry.

My research focused on investigating the design practices and their role in the implementation of gendered notions in the creation and production of women's online portals. Since, issues of gender, due to their nature, always set a political agenda when positioned within a social context; they could not be investigated directly. This would only polarise the relationship between me as the researcher and my interviewee, since notions of gender might question the moral stand of my interviewee. In order to be able to ask questions around gender in relation to design practice, I heavily relied on my virtual artefact to prompt participants' responses. By permitting the virtual artefact, the site itself, to prompt the conversation the interview was conducted within a familiar territory to both the researcher and the participant. In line with the feminist framework (Mies, 1993; Maynard and Purvis, 1994), the interview was not exploitative in nature, since BEME.com established a platform where both the researcher and interviewee were equal. BEME.com generated an area of safety, where the design practitioner involved in the production of the site felt comfortable without thinking that their moral or ethical stand is being compromised. It allowed for a common ground and forays into each others territory without demolishing the professional boundaries, mediating the traditional concepts and 'professional uniforms' just as much as it prompted an investigation of issues at hand. It maintained the status quo through a shared knowledge and yet it allowed its subversion by inviting questioning and criticism.

During the interview it became quickly apparent that BEME.com as a virtual artefact is deeply located in a series of discourses that constitute the artefact itself as well as define relationships of those who were involved with it. These are tacit knowledge, power structures, marketing strategies, historical perspective and gender systems. (Sadowska, 2004) The initial three discourses are directly involved in forming the conceptual understanding of the BEME.com as a designed artefact offering a particular experience. The latter two, although indirectly involved, are used to locate the artefact's existence in a larger social, cultural and political context. Tacit knowledge discourse contains the shared knowledge that becomes a base of understanding of the whole scenario in which BEME.com is created and exists, towards which each member can add their own personal capabilities. The power structures discourse depends on each participant's position and relationship to the whole project. It reveals the tension between the members of the team in relation to each other and to the hierarchies within the publishing house. The marketing strategies discourse represents a description of BEME.com's marketable qualities and
economic factors. Since, IPC is the official owner of the site it holds a position of power as to the interpretation of this particular discourse, dictating it to other members of the BEME.com team. The discourse focusing on historical perspective explores the technological relationships and locates BEME.com within a time spectrum in relation to other sites and success/failure of the Internet itself. It also provides a common thread in understanding BEME.com technological environment and the type of experience BEME.com offers to its female users. The gender systems discourse is driven by the participants' understanding of gender as a concept combined with their understanding of the category of ‘women’. It is also responsible for participants approach to women related issues. Overall, these discourses are crucial in forming the collective knowledge used to rationalise the existence of BEME.com as a design artefact. They also reveal ways in which the gender notions are embedded and perpetuated by design practice.

To support my argument I turn to a model of 'textually mediated discourse' proposed by Smith (1988) in relation to communicating gender. Smith's definition of 'textually mediated discourse' of femininity is grounded in the following. “[Femininity's] … social character is achieved in and through what actual individuals are doing in the everyday settings of their lives. The concepts, categories and images in which we talk and find 'femininity' are part of those practices. They are embedded in and intelligible only in the context of the complex [practices] of which they are part, as well as being integral to its organisation and accomplishment.” (Smith, 1988: 38) The ‘complex of practices' that women engage in and constitute can be seen as a discourse of relationships between different elements. Women exposed to this discourse take part in constant interaction between the mediated meanings, where the interpretations take place on the local level. (Skeggs, 1997)

Furthermore, Smith (1988) observes: “Certainly in our time, to address femininity is to address a textual discourse vested in women’s magazines and television, advertisements, the appearance of cosmetic counters, fashion displays, and to a lesser extent, books.” (p. 41) However, Smith (1988) does not believe that this discourse is external to women. She argues that it “… involves the talk women do in relation to such texts, the work of producing oneself to realize the textual images, the skills involved in going shopping, making and choosing clothes, making decisions about colours, styles, make-up and the ways in which these become a matter of interest among men.” (p. 41) It also exposes the economical/commercial application of the social/cultural meanings. It interprets this phenomenon as a “… 'motivational' structure, which returns the purchaser again and again to the cosmetic counters of department stores, to the fashion boutiques in the malls, to the magazine racks displaying women's magazines.' (Smith, 1988: 41) In order for the practice of becoming feminine to exist, design becomes crucial creator and mediator between the artefacts and their meanings. As Smith reasons: “There is then a productive process which creates the symbolic artefact through which the commodity enters discourse - the specialised work of advertisers and the makers of women's magazines, of fashion designers, etc., etc. These provide the direct material organisation of the discourse which mediates and structures a market for an extensive organisation of industry, garment, shoe, fabric, cosmetic, and many other manufacturing enterprises.” (Smith, 1988: 41)

In other words, design, by providing the 'symbolic artefact' enters the 'textually mediated discourse' and becomes part of the practice of becoming gendered. This practice occurs on daily basis and can be re-enacted in an ongoing pattern making design integral to this re-enactment. Hence, BEME.com as an interactive and participatory artefact transfers the notions of gender from ideological stance into daily reality. Being produced by traditional women's publishing industry, it defines its audience through gender, it entices gender consumption and it provides help on how to become gendered member of the society. Thus, BEME.com represents what Smith (1988) refers to as textually mediated gender
discourse deeply embedded in the actual practices performed by its female users. In economical terms BEME.com survival relies on this concept, since it provides what Smith terms as 'motivational' structure. Through this process BEME.com undergoes transformation from being just a design outcome with embedded meanings into a 'symbolic artefact'. An acknowledgement of this transformation is an important insight for both design researchers and practitioners who design outcomes for female consumption.

Extended Epistemology and Narratives as Tools Situating Artefacts

The above examples from our respective research show how the artefact has proved helpful in facilitating story-telling when a more conventional approach proved unsuitable because the subject matter caused tensions. Let us refer to some ideas that further highlight the significance of the artefact in social interaction and therefore its potential role in acquiring and sharing knowledge.

In his work Krippendorff (1995) discusses how designers in their professional ability are 'making-sense' of everyday life through form by generating artefacts. He goes on to argue that form and meaning are closely related. "Something must have form to be seen but must make sense to be understood and used." (Krippendorff, 1995: 161) Although, we are not going to focus on an in-depth explanation of semantics of artefacts, we use Krippendorff's argument to define how artefacts can become meaningful through the process of design. He maintains that artefacts rely on the contexts in which they are situated to become meaningful. Krippendorff identifies four such contexts: operational, sociolinguistic, context of genesis and ecological. (p. 162) Of particular interest to our discussion is the sociolinguistic context in which actors are seen “...as communicating with each other about particular artefacts, their uses and users, and thereby co-constructing realities of which objects become constitutive parts.” (Krippendorff, 1995: 162) Krippendorff argues that when we obtain artefacts we often consider others as part of a decision making process affecting the artefacts. Hence, artefacts become part of social practices which attribute definitions and meanings. As Krippendorff points out '[i]n this context, objects participate in human communication and support linguistically mediated social practices.' (p. 169)

To be able to tap into these social practices and their contribution to generating meanings we are inspired by co-operative inquiry methodologies, where the researcher's own experiences are regarded as a valid source of information and where the research is carried out with rather than on people. Of special interest is the notion of an 'extended epistemology' and different ways of knowing. They reach beyond the conventional propositional knowing, through theories and ideas, into experiential knowing, practical knowing and presentational knowing. (Heron, 1996; Heron and Reason, 2001) "In co-operative inquiry we say that knowing will be more valid if these four ways of knowing are congruent with each other: if our experience, expressed through our stories and images, understood through theories which make sense to us, and [is] expressed in worthwhile actions in our lives." (Heron, 1996; Heron and Reason, 2001) Acknowledging these wider spectra of learning and communication is especially relevant in the design context where inspiration, intuitive and tacit knowledge play an important role and where problem solving is often non-linear and heterarchical. Furthermore, the emerging fields of participatory research methods and participatory design processes, exemplified in the SusHouse (2000) project on sustainable households and in the Interliving project by CID (Centre for User Oriented IT Design, 2003), both speak of a need for and the benefits of establishing closer bonds between stakeholders to access different ways of knowing. Hence, our interests
focus on how this can happen while breaking down preconceptions of who is the expert and layman, and how a platform can be created where discussions are not censored by perceptions of what is politically correct to say. Within this context the use of artefacts as cultural probes which “... act as a design intervention that elicits inspirational material while avoiding the understood social roles of researchers and researched” is of high interest. (Gaver, 2001) The 'cultural probes' approach is increasingly used in ethnographic studies into the domains of domestic and technology future scenarios. Their merits seem to include drawing out both informative and inspirational material that often comes in the form of narratives. In our exploration we see the artefact as door to such stored wisdom of narratives that offer a context for 'safe' discussion into territories that are otherwise perceived as 'risky'. According to Lessing (1999) "... we value narrative because the pattern is in our brain. Our brains are patterned for story-telling, for the consecutive." (in Fulford, 1999: 111) Story-telling has been a buzz word in the world of marketing for more than a decade. In this context, the story's contagious aspects are emphasised as well as its non-confrontational way of getting people to think. However, foremost the story gives a human face to abstract phenomena. As Allan, Fairtlough et al. (2002) argue "[i]n every situation, there are what are called 'residual factors' - factors that can't be measured with a number. In some scenarios, these can be ninety percent of the factors! Stories are a good way of dealing with residual factors. They are like good graphic; they simplify what's being conveyed, they are easily communicated. The use of stories is about folks realising the world's not simple. Stories are a way of conveying complexity simply, and making it portable." (in Lacey, 2002: 62-66) While there is obviously a great variation as to how designers approach information, and while many outside the design field are "image-people", using the object as a centre for inquiry with designers seems especially appropriate. Thus, this paper argues that artefacts when used to facilitate story-telling can break down barriers between an individual's personal and professional selves, and between professionals of different disciplines.

Emergent Narratives: Offering Wider Guiding Frameworks to the Role of the Artefact

Hoskins (1998), who uses artefacts as tools to reveal stories about people, argues that often they can act as transmitters of 'life stories'. Artefacts participate in the negotiated relationships between the tellers and the audience and often help construct the meanings as well as the identities of each actor. They can unlock narratives deeply hidden in the human psyche or provide the prompt for the unravelling of the life story. As part of the narrative they can be used as metaphors representing the story teller. Through these identification processes, artefacts are associated with qualities or descriptors that allow the audience to identify and understand the identity of the story teller. Based on our research and additional experimental workshops we have begun to look for possible broader discourses that offer insightful frameworks as to how people use everyday artefacts as mediators. Through our investigation we began to identify narratives invested in the artefacts that allow participants to communicate between the 'professional self', 'personal self' or other individuals. Our initial analysis has allowed us to identify different aspects of these narratives like: spatial, emotional, comparative, retrospective and ethical.

During the interviews and workshops participants have often presented their narratives around the artefacts in reference to spaces. These spaces might have been public or private but they played an important role in defining the participant's relationship to the artefact. The spatial references offered clues to the audience whether the participants presented the 'personal self' or the 'professional self', defining the importance of the narrative in identity building. In underpinning communication, the spatial aspects
highlighted the physicality of the artefacts and their relation to the physical world at large. Furthermore, narratives often reveal an emotional attachment the story-tellers develop with the described artefacts. This exposes the level of importance a participant is willing to assign to the artefact. It can prompt further narratives describing the relationship between the participant and the artefact or participant and the 'professional self', 'personal self' and other individuals. Depending on the quality of the emotions expressed, participants will engage in the narrative or will avoid further story-telling. The comparative aspects allow the narratives to establish a set of relationships. At the most basic level, the narratives can be compared to other narratives from the same participant or from other individuals. Hence, a hierarchy begins to develop informing the issue at hand or the overall communication. Such hierarchy can change as more narratives are added during the ongoing communication. However, most importantly comparative aspects clarify these relationships and locate them within the greater socio-cultural context.

The retrospective aspects acknowledge passage of time. This is an important part of building narratives around the artefact, since it allows construction of relationships amongst the narratives. However, these are based on a sequential reference to time and the human history. They also allow for reflection, by prompting the story-teller to distance themselves from the artefact and reflect on the relationship between himself/herself and the object in question. The participant at that point often expresses value judgements by evaluating the particular narrative and its influence on the communicated information between the 'professional self', 'personal self' or other individuals. The ethical aspects are the most ephemeral of all. They rely on the story-tellers willingness to enter into negotiations based on value standards. Often it is a particular participant in the communicative exchange that prompts the ethical references, allowing for reflection often associated with the notion of social stand as a human being. In such cases the artefacts offer safe platforms for the ethical loaded narratives to interface. They protect the participants from being judged by others yet allow for questioning. Situated within and embodying such taxonomy of narratives, artefacts can function as a leverage point to unlock complex relationships and a starting point for discussions that may be otherwise difficult to initiate because of their sensitive nature. For example when discussing sustainability or gender it is easy to fall back on traditional labels, to get stuck in polarised camps or to avoid issues that touch 'to close to home'. The banality of an everyday artefact, such as a pair of jeans lightens up the discussion. The fact that almost all of us have frequent experiences of the artefact provides a shared starting point for 'uncontaminated' explorations.

In the context of design discipline artefacts carry the potential to be recognised as a commonly shared platform for design practitioners or design researchers to facilitate and validate their ability to communicate amongst themselves or those outside the discipline. Hence, we propose that the value of artefacts to both design practitioners and researchers lies in the artefacts ability to embody the narratives that mind the gap between the 'professional self' and the 'personal self' as well as between individuals. There are several ways in which the artefacts can be useful in such processes. They can be used as an 'interface' between researcher and the subject of study, or become the centre of a co-operative inquiry, or they can help to implement research findings into the design practice context. But most importantly they generate stories that have the potential to unlock complex relationships and spur shared experiences. As Hoskins (1998) argues, the artefact can become “… more than simply a “metaphor for the self”. It becomes a pivot for reflexivity and introspection, a tool of autobiographic self-discovery, a way of knowing oneself through things.” (p. 198) It is this potential as tools for introspection and self-discovery, we argue, demonstrates value to design practice and theory.
References


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