

CODING FOR RESPONSIVENESS

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ABSTRACT

This study explores the ‘designer’s talk’ as a site for the articulation and dissemination of design expertise. The paper discusses the development of a qualitative coding system generated in the course of analysing public presentations delivered by three prominent graphic designers: David Carson, Paula Scher and Stefan Sagmeister. The coding system is informed by theoretical concepts drawn from a model of expertise developed by Hubert and Stuart Dreyfus. Central to the Dreyfus model is the assumption that expertise is not something that is represented in the mind, but in the way that the world *opens up* for us. Expertise is manifest in the expert’s ‘responsiveness’ to situations. The paper explores the value of the coding system as a tool for understanding ways in which designers orient themselves in the course of developing and extending their practice.

Keywords: design expertise, Dreyfus model of expertise, qualitative coding.

INTRODUCTION

Many studies of design expertise assume that key aspects of design thinking and practice can be elicited during controlled acts of designing. This is a fundamental assumption of protocol analysis, an elicitation technique that has dominated the study of design expertise (Cross, 2004; Goldschmidt & Badke-Schaub, 2010). Despite the growing interest in ‘design thinking’ that has been generated by publications including ‘The Art of Innovation’ (Kelley & Littman, 2001) and ‘Change By Design’ (Brown, 2009), relatively little attention has been devoted to studies of naturally occurring practices traditionally associated with design expertise (Paton & Dorst, 2010).

The ‘designer’s talk’ is a prominent feature of formal design education. Traditional lectures and studio classes are regularly supplemented with presentations delivered by both emerging and established designers. These presentations are typically organised around a slide show, where designers ‘reveal’ aspects of their practice with reference to particular examples of their own work or to the work of designers who have influenced them. Design festivals and professional conferences are typically structured around the delivery of a similar form of visual presentation – designer talks by ‘creatives’ for ‘creatives.’ Gallery and exhibition spaces, long associated with the tradition of the ‘artist’s talk,’ play host to the ‘designer’s talk’ when exhibiting the work of designers.

This study explores the ‘designer’s talk’ as a site for the articulation and dissemination of design expertise. The study analyses publically available presentations by three prominent graphic designers: David Carson (2003), Paula Scher (2008) and Stefan Sagmeister (2004). The process of developing a structure that was appropriate to the analysis of this data raised many theoretical issues and challenges in relation to constructs that are currently used to explore design expertise. The genesis of this coding system is discussed.

TOWARDS A CODING SYSTEM

Research practice in qualitative domains is such that researchers adopt a range of approaches to working with their data. At one end of the spectrum lie emergent approaches where researchers rely entirely on the data, identifying themes, and contextualizing those themes in relation to other research only after data analysis is complete. At the other end of the spectrum, researchers start from a particular theoretical perspective, build a coding scheme, and

then apply that scheme to the data. Many projects lie somewhere between these extremes using a combination of emergent and theoretical approaches.

This project explores the interplay between ‘design expertise’ as it was expressed in the data, and a theoretical model of expertise – the Dreyfus model – a model that has recently been explored by researchers within the design research community. In the first phase of the project the researcher adopted an emergent approach. Once a compelling phenomenon had been identified in the data, the researcher adopted a more theoretical approach, looking for theoretical constructs that were appropriate to the data, and identifying theoretical categories that could be used to refine the coding structure.

‘DRAWN TO’/ ‘REACTING AGAINST’

The primary data for the study consisted of transcripts and video recordings of three presentations, each sourced from the ‘TED Talks’ platform. ‘TED Talks’ is an established internet based forum for the dissemination of the work and ideas of leading creative thinkers. The sample of presentations chosen for this study was established by focusing on a particular field of design – graphic design. The three presentations represent the full range of presentations delivered by practitioners in this field. One of the advantages of working with data that is so widely distributed is that other researchers can readily access this data. This is important in the context of qualitative studies where the integrity of the findings is highly dependent on interpretation of the data.

The coding of transcripts was undertaken primarily within the qualitative data analysis software (QDAS) NVivo. While NVivo supports coding of video media, the coding was applied to the transcripts rather than to the video recordings of the talks. This was a decision taken early in the project. Engaging with the text of the transcripts supported analysis of the structure of the presentation and key verbal cues in a way that working with video tended to obscure. Where video needed to be played back multiple times to register the exact wording of a segment,

that wording was available for immediate perusal in the text. The videos were referred to on a regular basis in order to establish context. The NVivo coding was supplemented with hand coding and visual mapping.

The initial coding was relatively unstructured. The researcher worked systematically through the transcripts generating codes as new, potentially interesting phenomena emerged - this initial coding was based on the emergent approach associated with naturalistic inquiry (Lincoln & Guba, 1985, p.203; Miles & Huberman, 1994, p.58). Segments of data were extracted from the transcripts and coded based on an implicit sense of the scope of the context that would be required to fully understand the relevance of categorising the data at any given code. Two related codes were clearly prominent – codes that were provisionally named ‘drawn to/working towards’ and ‘reacting against.’ The coverage of the codes in relation to each of the three transcripts was 46.49%, 26.51% and 31.65% for the code ‘drawn to/working towards,’ and 18.3%, 16.18% and 22.12% for ‘reacting against,’ resulting in a total coverage of 64.49%, 42.69% and 53.77%. The coverage of these codes was such that they clearly warranted further investigation. The emergence of these codes will be discussed in detail as they came to provide a focus for the remainder of the study.

A striking example of phenomena that came to be associated with the ‘reacting against’ code (an example that caught the researcher’s attention early) was Paula Scher’s description of the powerful motivating influence that a ‘hatred of Helvetica’ (a typeface) had on her early development as a designer.

I really, really, really hated the typeface Helvetica. I thought the typeface Helvetica was the cleanest, most boring, most fascistic, really repressive typeface, and I hated everything that was designed in Helvetica. And when I was in my college days, this was the sort of design that was fashionable and popular. This is actually quite a lovely book jacket by Rudy de Harak, but I just hated it, because it was designed with Helvetica, and I made parodies about it. I just thought it was, you know, completely boring... so, my goal in life was to do stuff that wasn’t made out of Helvetica.

And to do stuff that wasn't made out of Helvetica was actually kind of hard because you had to find it... You actually had to go to antique stores. You had to go to Europe. You had to go places and find the stuff. And what I responded to was, you know, Art Nouveau, or deco, or Victorian typography, or things that were just completely not Helvetica. And I taught myself design this way... I just sort of put these things together. I mixed up Victorian designs with pop, and I mixed up Art Nouveau with something else. And I made these very lush, very elaborate record covers, not because I was being a post-modernist or a historicist – because I didn't know what those things were. I just hated Helvetica.

In this case the designer clearly had an aspect of her experience in view – her hatred of Helvetica (it is evident from the videos that the designer is referring to both the typeface and to work that is designed in a style associated with Helvetica) – this provided her with a direction, something to react against. In the course of developing an alternative she is drawn to *places* that are potential sources of materials designed in alternative styles (antique stores/Europe). She is drawn to *particular styles* (Art Nouveau, deco, Victorian typography), and she experiments, she is drawn to a *particular way of working* (mixing up the styles) and to *particular aesthetic ends* (lush, elaborate).

A second example of what seemed to be a related and perhaps complementary phenomenon was Scher's description of developments in her practice that occurred in the course of working with architects on a theatre project:

I fell in love with this process of actually integrating graphics into architecture because I didn't know what I was doing. I said, "Why can't the signage be on the floor?" New Yorkers look at their feet. And then I found that actors and actresses actually take their cues from the floor, so it turned out that these sorts of sign systems began to make sense.

In this case the designer appears to find direction in the project by being drawn to *a particular social practice* – New Yorker's tendency to look at their feet. She is drawn to a second social practice, *an aspect of the professional practice of actor's and*

actresses – that they take their cues from the floor – building up her sense of the relevance of the initial design direction.

A third example is taken from Stefan Sagmeister's presentation where he discusses a work that he is drawn to because it 'evokes happiness:'

Much, much more difficult is this, where the designs actually can evoke happiness... This is a campaign done by a young artist in New York, who calls himself True. Everybody who has ridden the New York subway system will be familiar with these signs? True printed his own version of these signs... Now, the way this works in the system is that nobody ever looks at these signs. So you're (Laughter) you're really bored in the subway, and you kind of stare at something. And it takes you a while until it actually – You realize that this says something different than what it normally says. (Laughter) I mean, that's, at least, how it made me happy. (Laughter)

He is drawn to *the shift in perception* – to the gradual realisation that the signs are not the official subway signs but provocative interventions.

RESPONSIVENESS

The coverage of the codes 'drawn to/working towards' and 'reacting against' provided such good coverage across all three transcripts, that they clearly warranted further investigation. At this point the researcher sought a theoretical construct that might account for this phenomenon and that would provide guidance for further stages of data analysis.

A number of researchers investigating design expertise have drawn on a multi-stage model of expertise developed by Hubert and Stuart Dreyfus (Dorst & Reymen, 2004; Lawson & Dorst, 2009). The Dreyfus model is based on a sophisticated engagement with the work of phenomenologists including Heidegger (Dreyfus, 1991, 2005) and Merleau-Ponty (Dreyfus, 1993), and neurologists such as Walter Freeman (Dreyfus, 1993). The model was developed as an alternative to 'cognitivist' models of understanding and expertise (Dreyfus, 1999; Dreyfus, 2000).

A key motivation in undertaking this study was a desire to interrogate the Dreyfus model of expertise in the context of design. The first port of call in identifying a theoretical construct that might account for the phenomena coded under ‘drawn to/working towards’ and ‘reacting against’ was to work through the body of work developed by Hubert Dreyfus to determine whether or not that body of work included a construct that was adequate to that phenomena.

The Dreyfus model of expertise was initially developed as a model of skill acquisition (Dreyfus & Dreyfus, 1980, 1986, 2005). It has since been extended by Hubert Dreyfus (Dreyfus, 2005, 2008). At the heart of the Dreyfus account of skill acquisition is the claim that ‘skills are “stored”, not as representations in the mind, but as dispositions to respond to the solicitations of situations in the world’ (Dreyfus, 1993). Dreyfus constructs his multi-level account of expertise from a commitment to the position that learning is manifest in the way in which the world ‘opens up’ for us. As we gain experience of particular situations, we refine our embodied responses so that we become more and more adept at responding to similar situations (Dreyfus, 1993):

...what the learner acquires through experience is not represented in the mind... but is presented to the learner as a more and more finely discriminated situation, which then solicits a more and more refined response. In so far as the situation does not clearly solicit a single response or the response does not produce a satisfactory result, the learner is led to further refine his discriminations.

The construct of ‘responding to the solicitations of a situation’ is potentially applicable to a broad range of response types – the phenomenon of noticing is a form of responding, an immediate perceptual response; undertaking a process of developing design outcomes is a more sustained form of responsiveness. The way in which the theoretical concept of ‘responsiveness’ serves to extend the initial categories ‘drawn to/working towards’ and ‘reacting against’ will be discussed in the ‘Affordances’ section of the paper.

When developing the coding system it did not seem appropriate to distinguish between different response types. The aim was to develop a coding system that was broad enough to encompass a full range of responses. ‘Response types’ could be developed at a later date by clustering coded responses.

FOCUS OF RESPONSE

A significant feature of the transcripts is that much of the content is directed towards aspects of the material environment, social practices, ways of being, or abstractions (concepts).

Scher’s hatred is directed towards the typeface Helvetica (material focus). She is drawn to social practices such as New Yorker’s looking at their feet, and actors and actresses taking cues from the floor. Sagmeister is drawn towards instances of design that make him feel happy (material focus). He pays attention to social norms ‘nobody ever looks at these signs’ and to the violation of those norms (social practices).

The responsiveness of designers (being drawn to, reacting against, noticing, hating, feeling happiness...) is articulated by referring to an aspect of the world or of experience that is the focus of individual responses. For example ‘being really bored on the subway’ is *a way of being* that Sagmeister responds to, *notices*.

It is important to note that in some instances, phenomena that in other circumstances might be considered a response in themselves (feeling happiness, being surprised), can occupy a position in the narrative structure of the transcripts such that these ‘ways of being’ can be the *focus* of a response.

The initial coding was undertaken as a general pass over the transcripts as a whole. As the data under the codes ‘drawn to/working towards’ and ‘reacting against’ emerged as a potentially interesting focus for the study it became evident that it was important to establish a more manageable unit of analysis. Determination as to the nature of this unit was guided by a) an initial intuitive pass through the data where the researcher broke the transcripts into

'chunks' that were sufficient to provide adequate context for individual examples of the phenomenon of being 'drawn to' or 'reacting against'; and b) explicit analysis of these 'chunks' in the light of two criteria developed by Lincoln and Guba (1985), criteria that continue to be widely adopted in ethnographic studies. First, the units must be heuristic – 'the boundaries of what constitutes a chunk should be determined by the phenomenon under investigation and the needs of the researcher and not some ontological truth' (Barab, Hay, & Yamagata-Lynch, 2001, p.74). In the case of this study, boundaries were established by looking for shifts in the material, social, experiential or conceptual object of focus – shifts in the phenomena that provided the impetus for a response – the typeface Helvetica, signage on the floor of a theatre, signage on a subway wall (material focus); New Yorkers looking at their feet, actors taking their cues from the floor, staring at subway signage (social practice). In some instances the focus was relatively clear but in a number of more interesting and complex examples there was an interaction between potential foci. The decision as to how to handle these examples was shaped by Lincoln and Guba's second criteria – that the unit of analysis must be the smallest piece of information that can stand by itself. Wherever there was a clear interaction between individual material, social, experiential or conceptual foci then these would be included in a single unit of analysis. This unit of analysis was called a 'responsiveness-relevant-episode.'

For example, the Helvetica episode (developed from Scher's transcript) includes responses such as her hatred of Helvetica, her seeking out of antique stores as a potential source of styles other than Helvetica, her mixing up of styles, and her making parodies of work designed with Helvetica.

It was also necessary to introduce a coding entity that could be used to link episodes. The Scher talk for example, was structured around an opposition between solemn and serious play. Codes were created to represent each of the themes - 'Solemn' and 'Serious' - and these *themes* were linked to the relevant episodes.

AFFORDANCES

In the course of elaborating his description of what it is to 'respond to the solicitations of a situation,' Dreyfus draws on the language of 'affordances.' This is a term that has some currency in design research and amongst researchers working out of science traditions. Gibson(1979, p.127) coined the term 'affordance' in the course of developing an ecological rather than an isolated sense-based account of perception. Gibson was reacting to the then dominant model of perception where direct experience was confined to sense experience and meaning was considered to be the product of internal subjective processes laid over this direct sense experience. The term 'affordance' was developed to capture the way in which the interplay between environment and animal (or agent) determines the 'action possibilities' that open up for that animal/agent. Depending on the action capabilities of the animal/agent and, in the case of humans at least, the concerns, commitments and practices of the agent, surfaces of the environment open up as being 'climb-on-able', 'fall-off-able', 'get-under-neath-able' or 'bump-in-able' relative to the animal/agent; objects *open up as* being graspable, lift-able, able to be used for cutting, throwing, or mark-making; other people can open up as sources of support or as a threat. While an affordance is relative to the animal/agent it is also dependent on the environment – it is an action possibility offered up by the environment in the light of the action capabilities, commitments and concerns of the animal/agent.

The term 'affordance' acts as a supplement to the term 'solicitation' (Dreyfus, 1993):

It is crucial that the agent does not merely receive input passively and then process it. Rather, the agent is already set to respond to the solicitations of things.

The agent sees things from some perspective and sees them as affording certain actions. What the affordances are depends on past experience with that sort of thing in that sort of situation.

Learning (expertise) for Dreyfus is manifest in our responsiveness to the world, in the way in which the world offers up possibilities for action (affordances), the way in which it can be suggestive of particular

ways of responding (solicitations) based on previous experience. Both terms are used to convey a position that holds that our engagement with the world is perspectival, it is dependent on our actual engagement with environments, and is manifest in dispositions to act in certain ways.

The range of instances of ‘responsiveness’ identified within the transcripts was quite broad – they included responses such as noticing, hating, and mixing up typefaces. One aspect of Gibson’s concept of affordance that seems to be at odds with Dreyfus’ use of the term affordance is that for Dreyfus affordances include action possibilities that extend to emotional responses – an aspect of the world can open up as hate-able, surprising and so on. Dreyfus is working out of a tradition that seeks to recover the socially inscribed dimension of moods, and holds that atmosphere and emotions play a fundamental role in shaping the way in which aspects of the world open up for us (Dreyfus, 1991). I will be using the term ‘affordance’ in this extended sense.

A difficulty that arose in developing a coding system that could account for affordances is that they are not the sort of phenomenon that we tend describe explicitly. We do not talk in terms of surfaces opening up as being ‘fall-off-able,’ or ‘bump-in-able.’ The phenomenon of particular materials, social practices, ways of being, or abstract concepts opening up to us in a particular way, does however seem to be something that the designers value and manage to communicate, without necessarily spelling this out in concise statements.

Understanding the ways in which individual foci opened up for the designers was heavily dependent on an understanding of the text as a whole. Once the focus of the response had been identified, the nature of the affordance to be associated with that focus had to be inferred from the larger context of the text.

In order to accommodate the need for explicit descriptions in the coding system, a distinction was drawn between the *description of the affordance* and the *evidence for that affordance*. The description of the affordance could contain inferences but the evidence must be drawn directly

from the text. The close coupling of description and the evidence would provide an easy way of tracking the description back to the data.

Examples of the way in which responses were coded are given below.

Focus of response: Helvetica/designs based on Helvetica

Description of affordance: *Opens up as* a style that is hated, visually offensive, constraining, dominant.

Evidence for affordance: the way I looked at design and the way I looked at the world was, what was going on around me and the things that came at the time I walked into design were the enemy. I really, really, really hated the typeface Helvetica. I thought the typeface Helvetica was the cleanest, most boring, most fascistic, really repressive typeface, and I hated everything that was designed in Helvetica. And when I was in my college days, this was the sort of design that was fashionable and popular. This is actually quite a lovely book jacket by Rudy de Harak, but I just hated it, because it was designed with Helvetica, and I made parodies about it. I just thought it was, you know, completely boring. So, my goal in life was to do stuff that wasn’t made out of Helvetica...

Focus of response: Antique stores

Description of affordance: *Opens up as* a potential source of styles that were other than Helvetica, other than the dominant styles of the day.

Evidence for affordance: so, my goal in life was to do stuff that wasn’t made out of Helvetica. And to do stuff that wasn’t made out of Helvetica was actually kind of hard because you had to find it...You actually had to go to antique stores.

Focus of response: Floor of theatre (lobbies etc.)

Description of affordance: *Opens up as* a potential site for signage.

Evidence for affordance: I said, "Why can't the signage be on the floor?"

Focus of response: New Yorker’s looking at their feet.

Description of affordance: *Opens up as* a practice that validates the use of the floor as a site of communication.

Evidence for affordance: I said, "Why can't the signage be on the floor?" New Yorkers look at their feet.

Focus of response: Signs on New York subway

Description of affordance: *Opens up as* something that no one pays attention to – just part of the background environment.

Evidence for affordance: Everybody who has ridden the New York subway system will be familiar with these signs? ... the way this works in the system is that nobody ever looks at these signs. So you're (Laughter) you're really bored in the subway, and you kind of stare at something.

Focus of response: the practice of staring when you are sitting on a subway bored

Description of affordance: *Opens up as* a social practice, a potential opportunity to intervene.

Evidence for affordance: you're really bored in the subway, and you kind of stare at something.

Focus of response: being bored on the subway

Description of affordance: *Opens up as* a way of being, a state that people don't find very fulfilling

Evidence for affordance: you're really bored in the subway

This coding structure proved sufficiently flexible to accommodate the full range of responses identified in the transcripts whilst allowing the researcher's assumptions about the nature of the affordance, as described in the text, to be made explicit.

DISPOSITION OF THE RESPONSE: ACCOUNTING FOR POSITIVE AND NEGATIVE AFFORDANCES

The original 'drawn to/working towards' and 'reacting against' codes distinguished between positive and negative responses. The construct of *positive* and *negative* affordances is also an important feature of Gibson's theory (Gibson, 1979, p.137). Joseph Rouse, drawing on Dreyfus' work, develops a detailed exposition of responsiveness that contrasts resistance with accommodation (Rouse, 2000).

In order to distinguish between positive and negative responses, an additional field was added to the specification of a response: *disposition of response*. This category could be populated by the following options: positive, negative, seemingly positive, seemingly negative, neutral, unknown, and

unclassified. The complete coding system for a response is as follows:

Focus of response: Floor of theatre (lobbies etc.)

Description of affordance: *Opens up as* a potential site for signage.

Evidence for affordance: I said, "Why can't the signage be on the floor?"

Disposition of response: positive

Focus of response: being bored on the subway

Description of affordance: *Opens up as* a way of being, a state that people don't find very fulfilling

Evidence for affordance: you're really bored in the subway

Disposition of response: seemingly negative

RESPONSIVENESS AND THE CULTIVATION OF NEW PRACTICE

RESPONSIVENESS: AN OVERLOOKED DIMENSION OF DESIGN EXPERTISE

Responsiveness is a pervasive phenomenon. As such it is easy to overlook. It is holistic and occurs in the background of experience. We can direct attention to individual instances of responsiveness by describing the focus of those responses but much of the experience of what it was like to be in those situations is inherently experiential, it cannot be captured through description alone, and is often only tangentially referred to in discourse.

What is remarkable then, is the extent to which the designers do manage to bring aspects of their responsiveness to situations to the fore. The fact that all three designers, recognised leaders in the domain of graphic design, demonstrate such a concentrated focus on individual instances of noticing and other modes of responding, surely warrants serious investigation of this phenomenon by design researchers.

Much of the work of Donald Schön was motivated by the recognition that there was something very important going on in design activity that was prior to anything that might resemble problem solving (Schön, 1983). Schön drew on the metaphor of

‘framing’ to try to capture something of what this more basic aspect of design activity might entail.

Many researchers working within design domains have assumed that a frame is a cognitive structure, a representation that we hold in mind. The Dreyfus model of expertise suggests that framing might instead be a form of responsiveness, a way in which a design situation opens up when considered from a particular perspective. A ‘frame’ would have the emergent character of an affordance. Framing could be seen to arise from the holistic, embodied orientations that a designer inevitably brings to a design situation. Any description of a frame could be seen to be an abstraction, a way of drawing attention to an aspect of a designer’s lived experience, to a way in which the situation had opened up for that designer.

The advantage of understanding framing as a form of responsiveness is that it provides some insight as to how frames develop – how other forms of responsiveness: noticing, experimentation, and even emotional responses – might feed into the orientations that shape a designer’s practice. This will be discussed further in the following section.

Finally, it should be noted that the Dreyfus model of expertise is a multi-level model of expertise where distinctions are drawn between the levels of novice, advanced beginner, competence, expertise, mastery and world transformer (Dreyfus, 2005).

The aim of this paper is not to interrogate distinctions between these levels – although this has been a primary focus of other researchers (Lawson & Dorst, 2009). This study does, however, raise some interesting issues relating to the dissemination of expertise. Is the designer’s talk an effective means of disseminating the richness of the responsiveness of designers operating at the higher levels to designers operating at lower levels? Might design researchers and design educators have a role to play in fleshing out the nature and significance of responsiveness, both as a general concept and in specific instances? The need to incorporate a ‘description of affordance’ field in the coding system, a field that is populated by descriptions that

are inferred from the overall context of each of the talks, should give pause for thought.

ON THE VALUE OF THE CODING SYSTEM IN MAPPING THE ROLE OF RESPONSES IN THE CULTIVATION OF NEW PRACTICE

A valuable outcome of coding the transcripts in terms of responses is that it provides a way of revealing something about the way in which designers orient themselves in the course of developing new practices.

In the Helvetica episode, Scher holds onto her hatred of Helvetica. She searches for alternative visual influences, seeking out places where she might find those alternative styles, experimenting with the visual source material that she finds. It is potentially relevant that part of Scher’s response to her hatred of Helvetica was to make parodies in the style of the work that she was reacting to. It is quite possible that the activity of designing in this style might have influenced the way that Scher develops her ‘alternatives’ to Helvetica.

In the theatre signage episode she holds onto the possibility of putting signage on the floor. She draws on the practice of New Yorkers’ looking at their feet to reinforce her conviction that the floor was a viable site for the signage. This conviction is further reinforced when she identifies a practice associated with the theatre – that of actors and actresses taking their cues from the floor – that has parallels with the practice that she is hoping to cultivate by introducing the new floor signage.

While it could be argued that the dynamics of these two examples are relatively apparent in the transcripts themselves, the advantage of the coding system is that it provides a way of structuring more dispersed and less obvious examples. I focus on these particular examples in this paper precisely because they are relatively self contained – as such they are useful in providing a snapshot as to how the data is structured.

In the New York subway episode, Sagmeister is attentive to the conditions that allow him to respond to the work of the artist/designer True. He is

attentive to the transition between a state of boredom, of simply staring at the subway walls, to an alternative state where he recognises that the signage says something different to what it normally says — that it is a subversive intervention. He holds onto his sense of enjoyment and surprise. This transition is thematically linked to an example of his own work, a series of site-specific works, that he introduces towards the end of the presentation. Sagmeister constructed these site-specific works such that they can be read in at least two ways. At one level they can be read as ‘type’ (a conventional reading); but at another level, a level that is not immediately apparent, they can be read as an elaborate arrangement of objects in an environment. Readers who sustain their engagement with the works, are rewarded by this second, alternate reading.

While Carson presents one or two specific examples of his own work, his presentation is structured around a more generalized discussion of the way in which the world opens up for him — the phenomena that he ‘notices.’

Representational (‘cognitive’) models of design activity do not address the issue of ‘noticing’ — representations are taken either to be direct correlates of ‘data’ in the environment or they are somehow already in mind.

The Dreyfus model provides a rich account of the phenomenon of noticing. According to this model we are constantly engaging with the world — with objects, with surfaces, with how we find ourselves in the world and with each other. While our commitments and concerns shape how the world opens up for us, we are constantly orienting and reorienting ourselves in such a way as to further those commitments and concerns. Following Merleau-Ponty, Dreyfus describes this process as one of being motivated to achieve maximal grip on a situation, a process aimed at achieving successful *gestalts* (Dreyfus, 1999, p.110):

...in everyday, absorbed, skillful coping, acting is experienced as a steady flow of skillful activity in response to one’s sense of the situation. Part of that experience is a sense that when one’s situation

deviates from some optimal body-environment relationship, one’s activity takes one closer to that optimum and thereby relieves the “tension” of the deviation.

Noticing is an aspect of our experience that arises from our attempts to get a better grip on the world in the light of our commitments and concerns. As we engage in certain practices we refine our ability to notice and discriminate aspects of situations that are relevant to the development of those practices.

Carson makes explicit reference to the fact that his own experience of having designed magazines provides the motivation for an ongoing engagement with the way in which magazines such as *Time* and *Newsweek* deal with the visuals for ‘big stories.’

Having done a lot of magazines, I’m very curious how big magazines handle big stories, and I was very curious to see how *Time* and *Newsweek* would handle 9/11.

Carson works through his responses to covers and spreads taken from these publications. While some of these responses deal with material aspects of the publication, his responses for the most part, reflect a process of establishing a position in relation to the social and emotional resonance of the imagery and layouts. It seems fair to assume that Carson pays attention to the way in which the presentation of these stories opens up for him because he understands that it is important to the ongoing cultivation of his practice.

CONCLUSION

A number of researchers have recognized the need to extend the methods and theoretical constructs traditionally associated with the investigation of design expertise. The study described in this paper aims to address this need on a number of fronts. First, the study focuses on a naturalistic form of the dissemination of design expertise — the designer’s talk; second, the study employs theoretical constructs drawn from a body of work that has only recently been taken up by researchers in this area, a body of work that potentially represents a significant challenge to ‘problem solving’ and ‘cognitive models’ of design expertise; and third, the development of a coding structure is discussed in

detail with a view to developing research practices that are appropriate to the systematic interpretation of qualitative data.

The scope of the study was defined by a decision made at the outset of the study – that the data for the study would consist of the video records and transcripts of three ‘TED Talks’ presentations. Close attention to this data and the adoption of an initial emergent approach to coding, created the space for an important aspect of design expertise to come to the fore – initially conceived in terms of being ‘drawn to/working towards’ or ‘reacting against’ and later generalized to the theoretical construct ‘responsiveness.’

Close attention to the content of the transcripts has also revealed a potential limitation in relying on talk alone as a way of disseminating design experience. This is manifest in the need to create a coding field ‘description of affordance’ that is populated by descriptions inferred from the context of the talks. A degree of interpretation is required to spell out the way in which the phenomenon described in the ‘focus of response’ appears to be opening up for the designer. This suggests that novice designers, and possibly even designers who are slightly more advanced, may need to be supported in imaginatively engaging with the content of designers’ talks to the extent that they can understand and appreciate how the cultivation of particular forms of responsiveness might lead to new practice.

A significant outcome arising from the application of the coding system is the structure that it provides for mapping links between individual responses and the cultivation of new practice. The coding system would seem to have considerable potential in terms of revealing ways in which designers orient themselves in the course of developing new practice.

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20 IASDR 11 DELFT

Diversity and unity

4th World Conference on Design Research
October 31 - November 4, 2011
Delft, The Netherlands

Organized by the International Association of Societies of Design
Research (IASDR) and Delft University of Technology, Faculty of
Industrial Design Engineering

www.iasdr2011.org

Book of abstracts & programme

editors Norbert Roozenburg
Lin-Lin Chen
Pieter Jan Stappers

CONFERENCE AT A GLANCE

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08:30	Registration/Welcome coffee	08:30	Registration	08:30		08:30		08:30	
09:00	Workshops	09:00	Opening session	09:00	Oral presentation	09:00	Oral presentation	09:00	
09:30		09:30	Keynote 1 Keynote 2	09:30		09:30		09:30	
10:00		10:00		10:00	break	10:00	break	10:00	
10:30	Doctoral colloquium	10:30	Oral presentation	10:30	Keynote 3 Keynote 4	10:30	Keynote 5 Keynote 6	10:30	
11:00		11:00		11:00		11:00		11:00	
11:30		11:30		11:30		11:30		11:30	
12:00	lunch	12:00	Oral presentation	12:00	Special sessions	12:00	Poster session	12:00	
12:30		12:30		12:30		12:30		12:30	
13:00		13:00	lunch	13:00	lunch	13:00	lunch	13:00	
13:30		13:30		13:30		13:30		13:30	
14:00	Doctoral colloquium	14:00	Oral presentation	14:00	Oral presentation	14:00	Oral presentation	14:00	
14:30		14:30		14:30		14:30		14:30	
15:00		15:00		15:00		15:00		15:00	
15:30	Workshops	15:30	break	15:30	break	15:30	break	15:30	
16:00		16:00	Oral presentation	16:00	Oral presentation	16:00	Closing session	16:00	
16:30		16:30		16:30		16:30		16:30	
17:00	Icebreaking party & Registration	17:00		17:00		17:00		17:00	
17:30		17:30		17:30	Conference dinner buffet & dance	17:30		17:30	
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2011 IASDR DELFT

Diversity and unity

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lay-out & design Corrie van der Lelie

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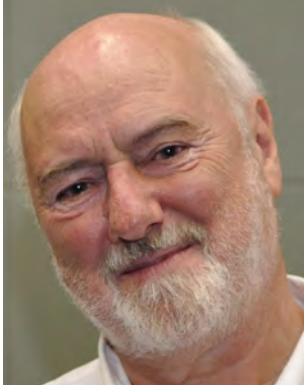
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OPENING HOURS REGISTRATION DESK

MONDAY 31 October	07:30 - 10:00h	Central hall Industrial Design Engineering
	17:00 - 19:00h	Central hall Industrial Design Engineering
TUESDAY 1 November	07:30 - 17:00h	Central hall Aula Conference Centre
WEDNESDAY 2 November	08:00 - 10:00h	Central hall Aula Conference Centre
	12:30 - 14:00h	Central hall Aula Conference Centre
THURSDAY 3 November	08:00 - 10:00h	Central hall Aula Conference Centre
	12:30 - 14:00h	Central hall Aula Conference Centre

IASDR 2011: LETTER OF WELCOME



It is my great pleasure to welcome all participants to this fourth Congress of the International Association of Societies of Design Research (IASDR).

IASDR was formally established in November 2005, at its first Congress, held in Taiwan. The Association's aim is to promote research or study into or about the activity of design in all its many fields of application, encouraging collaboration on an international level between independent societies of design research. The Association is comprised of five member societies, of which three are based in Asia:

- The Chinese Institute of Design
 - The Japanese Society for the Science of Design
 - The Korean Society of Design Science
- and two are international but based in Europe:
- The Design Research Society
 - The Design Society.

The founding of the Association was an acknowledgement of and response to the rapid growth in the numbers of design researchers, and in the amount of design research that is now in progress around the world. This growth requires more international collaboration and cooperation amongst the several societies that already exist to encourage and support design research. It also requires a level of international agreement on the standards of a robust and rigorous design discipline. The Association, with its focus on research, stands alongside, and will cooperate with, other international organisations concerned with design practice and education.

The Association promotes, amongst other activities, the organisation of a biennial International Congress of Design Research, at venues around the world. Three such Congresses have been held very successfully: in Douliou, Taiwan, November 2005, in Hong Kong, November 2007, and in Seoul, South Korea in October 2009. In reflecting on a venue for the fourth Congress, we hoped to find it in Europe. Some of our Board members, including myself, know well the Faculty of Industrial Design at Delft University of Technology, and we were delighted when we received an immediate positive response from the Faculty when we approached them. The international reputation of the Faculty of Industrial Design, and the historic location of Delft makes it a particularly appropriate and attractive venue for IASDR.

We are truly grateful to Norbert Roozenburg, who has led the organisation of this Congress, and to the Dean, Cees de Bont, and the many other colleagues at the Faculty of Industrial Design for their generous offer to host this Congress, and for all the hard work that has gone into its preparation and presentation.

Professor Nigel Cross

President, International Association of Societies of Design Research



PREFACE BY CONFERENCE CHAIR



Welcome to IASDR2011, the 4th World Conference on Design Research, at Delft University of Technology, Netherlands. Thank you for coming; we hope you will enjoy the conference.

The first three IASDR conferences were held in Taiwan, Hong Kong and Seoul. We of the Faculty of industrial Design Engineering are proud to have been given the chance to organize this first IASDR conference in the Western world.

IASDR's conferences are open to all design disciplines. They aim to provide a unique global forum for the presentation and discussion of research into fundamental aspects of design activity and experience across all domains of application, including industrial design, architectural design and planning, different branches of engineering design, software, interaction and media design.

This year's conference brings together more than 400 hundred academics, researchers and practitioners from 150 different institutions spread over 35 countries. Hence, the conference provides for a rich international, cross-discipline and multicultural platform for networking and developing new knowledge, connections and longer-term collaborations.

The conference proceedings comprise 310 papers. This represents nearly 40% percent of abstracts and full papers that were initially submitted. Over 250 reviewers and 10 advocates have actively contributed to the review process. The published papers cover a wide array of topics of which "design and emotion" and "design education" attracted the largest number of submissions.

We are fortunate to have six distinguished keynote speakers: Paul Gardien (Philips Design), Kristina Höök (Stockholm University & SICS Mobile Life Centre), Lucy Kimbell (Said Business School & Fieldstudio), Jongdeok Kim (Hongik University), Ilpo Koskinen (Aalto University) and Lin-Lin Chen (National Taiwan University of Science and Technology). Thank you very much for coming.

I would especially like to thank and acknowledge Lin-lin Chen, Yaliang Chuang and Pieter Jan Stappers for all the hard work they have done to manage the review process and to establish the program. Also I want to thank the members of the local organizing committee for making it happen: Astrid Bijkerk, Carlos Cardoso, Jaap Daalhuizen, Jaap van Grinsven, Corrie van der Lelie, Christine de Lille and Angeline Westbroek, as well as the staff of the Aula Conference Centre: Els Bakker-van Benthem, Corry van der Drift and Marie-Louise Verhagen.

Above all, thank you to all of you for coming to Delft. I wish you a very nice conference.

Delft, 6 October 2011

Norbert Roozenburg
IASDR2011 Conference chair



IN MEMORIAM KEES OVERBEEKE

(18 July 1952 - 8 October 2011)



During the final preparations for this conference we learned of the sudden death of prof.dr. C.J. Overbeeke.

Kees has been an active member of the design research community, passionate about realizing quality in design. In his work he stressed the design relevance of research, and scientific maturity of design. In Delft, as associate professor Form Theory and co-founder of the ID-StudioLab, and then as full professor Intelligent Products and Systems Design at TU/e he was active in leading design research and education groups. Kees inspired new directions and conferences such as the Design and Emotion Society and Designing Pleasurable Products and Interfaces. Only two years ago he gave a keynote at iasdr 2009.

Kees stood open to combining the personal and professional qualities of those he worked with, and especially vehement about coaching students to get the best out of themselves. In his personal way, he inspired a new generation of designers worldwide. He will be sincerely missed.

The Designing Quality in Interaction Group has setup a webpage <http://dqj.id.tue.nl/kees/> on which friends and colleagues can share memories of Kees.



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