New knowledge in design: A Hermeneutic Perspective on Design Activity and the Production of Knowledge.

Most definitions of research refer to the concept of adding to, or developing, the knowledge of a domain. Activities and outcomes are recognised as research based on assumptions about what constitutes knowledge. The relationship of design to the production of knowledge can be problematic if we adopt what Heidegger referred to as a metaphysical view of the world. From a metaphysical point of view the scientist is a finder, a discoverer, while the designer is primarily a maker. The scientist uncovers truths about the world that complement existing representations of reality. The maker, on the other hand, applies knowledge and intuition to develop configurations in the physical world that solve a problem or that have some other relevance in a social context.

Hermeneutics as it has been developed by Heidegger and Gadamer shows up a very different relationship between the maker and knowledge. Heidegger uses the term “älthelia” as the locus for an exploration of what it is that we are doing when we refer to something as being true (Dreyfus 1991, p.270). “Äthelia” may be rendered in English as un-hiddenness, un-concealment, dis-closure, dis-covery, re-velation (King 2001, p.101). What is hidden that needs to be revealed by assertions of truth? Heidegger suggests that it is authentic experience of the world as it is, of other people as they are, of ourselves as we are. At a certain level, our experience of the world, of other people, and of ourselves must be authentic as we are always already in the world, bound up with other people, existing as ourselves. It is only against this background of experience that assertions about the world, about others, or about ourselves may be considered true or false. Assertions operate at the level of pointing out. Scientific truths, like other true assertions arise from the disclosure of the world, of others, or of ourselves, that occurs through always already being oriented in the world and through the skilled use of assertions to draw attention to particular aspects of the world. From a hermeneutic point of view scientific knowledge is only one kind of truth. Other truths may be revealed by alternative disciplinary practices. The maker, for example, is able to proceed by bringing to bear orientations that frame a situation in a particular way (Schon 1987, p.49). Assertions can be made that bring to light that frame. Assertions of this kind should be considered central to the knowledge of design disciplines in that they cultivate the development of a shared understanding of the domain and they facilitate the interrogation of design practice.

In this paper I equate knowledge with assertions of truth. I outline a number of ways in which design or design related activity may be considered to contribute to knowledge in the domain.

In particular I explore ways in which designers may:

• develop artefacts that allow us to see the world in significant new ways;
• develop artefacts that bring to the fore previously implicit or unknown aspects of a situation;
• introduce configurations of frameworks and judgements that become a locus for development of design domains; and,
• develop ways of framing design situations that constitute a significant new approach to the development of design outcomes.

I propose that researchers must engage in developing and foregrounding such contributions if they are to play an effective role in the creation of technological citizenship (Delanty 2001, p.158).
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In this paper I equate knowledge with assertions of truth. I outline a number of ways in which design or design related activity may be considered to contribute to knowledge in the domain. In particular I explore ways in which designers may develop artefacts that allow us to see the world in significant new ways; develop artefacts that bring to the fore previously implicit or unknown aspects of a situation; extend the depth and breadth of the referential contexts that are explored in the development of a genre of design outcomes; and bring clarity the skills, orientations and processes that shape the development of design outcomes. I propose that researchers must engage in developing and foregrounding such contributions if they are to play an effective role in the creation of technological citizenship (Delanty 2001, p.158).

**Assertions of Truth**

Central to Heidegger’s *Being and Time* is an exploration of three accounts of ways in which someone or something may be said to exist in the world. There are beings that show up for us as objects with properties (Vorhandenheit, present-at-hand, occurant), beings that are part of the referential whole that we negotiate day to day without consciously paying attention to them (Zuhandenheit, ready-to-hand) and the being that is our own way of being (Da-sein), the clearing that allows any sort of being or beings to show up for us.

Heidegger shows that the Western philosophical tradition has focussed on a particular way of being – Vorandheit, the present-at-hand – where objects show up as discreet entities with properties. Objects, show up as if they are independent of our concerns. If we were to include a reference to the relation of the object to ourselves we might assign to the object a particular type of property, a function, which would describe the relationship of that object to our needs and/or objectives.

Heidegger argues that the tradition got it wrong when it started with such discreet entities. At the heart of this argument are very careful descriptions of the way that objects normally show up for us. In *Basic Problems of Phenomenology* (1982, p.163) he discusses the experience of entering a lecture theatre. He points out that we don’t first notice “walls,” “doors,” “seats” and “stairs” and their properties. We don’t first perceive individual entities and then somehow establish coherent interconnections between them. We simply go about the business of attending the lecture. We are always already oriented towards the lecture theatre. Walls, doors, seats and stairs are always already integrated into a referential whole that relates to our concerns. Similarly in *Being and Time* Heidegger demonstrates
that the most basic understanding that we can have of a hammer is in its transparent use (Heidegger 1962, p.98).

It is only in situations of the breakdown of the transparent functioning of a piece of equipment that we start to notice it as a thing – if it is unavailable, broken, not performing as we expect it to perform, if we wish to improve it (design), or if we wish theorise about. What the tradition has missed out on is the necessarily perspectival nature of our access to the world. While the world is as it is, there are many ways in which we can access (or fail to access) the world as it is. What shows up for us in the world necessarily depends on the orientations that we bring to our encounter with the world.

In his investigation of truth Heidegger draws on the Greek concept “Alêthia.” “Alêthia” may be rendered in English as un-hiddenness, un-concealment, disclosure, dis-covery, re-velation (King 2001, p.101). Theodore Kisiel in his discussion of Heidegger’s lecture series on Aristotle given between 1923 and 1925 notes the importance of speaking about untruth in positive terms and truth as a negative (Kiesel 1995, p284):

The oddity that the Greek word for truth is negative suggests that it must be “wrung” from beings by a process of un-concealment. Truth for Heidegger is a matter of letting entities, a situation, ourselves and others be seen as what they are. There are however many ways in which “what they are” can be obscured. Prevalent opinion may dominate our perception of “what they are” to the extent that we fail to look beyond that point of view. We may simply not have “what is there” in view (ignorance). We may fail to accurately notice what is there because our interactions with the world may be obscured by habits of speech, thought or engagement (error). We are always already in truth, but we must always necessarily conceal (Heidegger 1993, p.129-30):

Precisely because letting be always lets beings be in a particular comportment that relates to them and thus discloses them, it conceals beings as a whole.

We are the clearing through which entities, situations, ourselves and others can be seen. We are always already oriented in the world and these orientations can give as access to the world as it is. However, our orientations, being formed as they are through experience, language, and taken over practices, may be such that we fail to notice the world as it is. Further, our orientations are finite. There will always be other ways of accessing the world as it is. There is no way of ensuring against the possibility of concealment. All we can do is attempt to remain open to the
world. There is no method or set of practices that can give us transparent access to the world as it is.

The Western philosophical tradition casts “truth” in terms of correspondence – correspondence between a statement and a matter. Heidegger accepts that propositions can be a matter of correspondence but he takes care to show that truth as any form of correspondence is dependent on a) the act of disclosure and b) the operation of statements (as language) at the level of pointing out. Truth does not reside within the statement. Statements are equipment that we can learn to use to draw attention to something, to share something of our orientation towards the world to share what shows up for us in the world (Heidegger 1984, p.126).

The tradition's emphasis on truth as correspondence suggests that disclosure of the world is upproblematic. There is a failure to acknowledge that the act of disclosure is a creative act, an act of insight, of letting go, of letting ourselves be involved in the development of orientations and practices that allow aspects of the world to show up for us as they are. Judgement rather than method must always lie at the heart of any determination of truth. Judgement is necessarily formed by experiences, histories and language. It is shaped by encounters that we happen to have with the world, with the things that matter to us, the things that concerns us to the extent that we notice and pay attention to them. Statements of truth are always perspectival – this is not to suggest that what they reveal isn’t as it is but that any mode of access to what is can only ever be a mode of access, it is not, and can never be, that only mode of access to what is.

Heidegger in recovering the act of disclosure as the precondition of any statement of truth shows that we should no longer dismiss the “merely subjective” – that which shows up in the context of our concerned engagement with the world. Insights about entities, ourselves and other people are just as real as insights about the “consistently present” theoretical entities of science. King(2001, p.72) summarises this point as follows:

...how is it possible for us to understand the “being there” of things at all. We primarily understand that things are handily there, not for any accidental or arbitrary reasons, but because they can become accessible in their being only within a world...It is quite erroneous to think that handiness is
a “subjective colouring” we cast over things: it…enables us to understand things as they are “in themselves.” Our everyday having-to-do-with things could never decree the apple tree to be handy if it were not “in itself” handy, at hand, and if its fruit were not “in itself” handy for eating. It is only from a long tradition and habit of thought that we almost automatically dismiss what we call “merely subjective” as untrue. If we could not discover things “subjectively” – if we could not let them touch us, concern us, be relevant to us – we could not discover them at all.

Science operates in such a way that is decontextualises entities from our everyday practices and recontextualises them in terms of a theory, a “world picture” (Dreyfus n.d.). Science is only one mode of access to the real, but is is a mode of access that has shaped assumptions about the nature of truth and knowledge. The conditions of truth that may be appropriate to science – objectivity and replication of results – only hold for the kinds of entities that science as theory reveals – the consistently present present-at-hand. Situated, experiential judgement must be acknowledged as the ultimate authority with regard to the truth of that which shows up in our closest concerns.

New knowledge in design

The dilemma associated with the evaluation of genuinely innovative design outcomes is captured in Richard Rorty’s description of the “strong poet” (Rorty 1989, pp.27–28). Rorty’s strong poet is the poet who succeeds in developing a new language that catches on with a community. The strong poem (and by implication the “strong artefact” or “strong design”) should be considered equivalent to a conceptual breakthrough in science in that it plays into a community’s construction of reality. It influences what gets noticed, what comes to the fore, what it is that we can give voice to, what it is that we can describe. Rorty draws attention to the fact that there may be very little to distinguish the new language of the strong poet from another language that comes to be regarded as that of an idiosyncratic individual.

To some extent the argument that genuinely innovative design outcomes should be accepted as design research is uncontentroversial. There seems to be little question that it is desirable to cultivate research environments that support the development of such outcomes. Genuinely innovative outcomes are obviously
important to the development of design disciplines. In many ways generating a speculative artefact and putting it forward into the arena public is a more powerful intervention with greater scope to show up implicit concerns, practices and desires of a culture or subculture than any controlled investigation that could be conducted within the confines of traditional academic research. Rorty’s description of the strong poet, however, draws attention to the difficulty of recognising and validating such artefacts/outcomes.

It is beyond the scope of this paper to suggest a definitive resolution to the problem of “validating” genuinely innovative design outcomes. I will, however, make two claims about the relevance of Heidegger’s detailed exposition of disclosure and assertions of truth to the development of validating contexts for design research. My first claim is that artefacts can play a role that is similar to assertions (statements) in that they point out, or draw attention to, aspects of the world, ourselves and others as they are. Artefacts and visual documentation can in many instances be seen as equivalent alternatives to a written exegesis. Second, artefacts (design outcomes) only “catch on” if they in fact resonate with, or bring to the fore, some aspect of our experience of the world, of ourselves or of others. Questions of significance are questions of truth. Genuinely innovative design outcomes are such because they play a role in the construction and/or clarification of the referential contexts that shape our lives. We need to move beyond “common sense” assumptions about truth and knowledge derived from the Western philosophical tradition and reassert the relationship of the maker to truth when developing validating contexts for the domain.

Is the “strong poem” (strong creative work, genuinely innovative design) sufficient as a research outcome within a university context? The central issue here should not be the difficulty in distinguishing the language of the strong poet from an idiosyncratic individual language. It seems to me that this is precisely the kind of debate about possible constructions of reality with which a university community should engage. The key issue should be whether or not the “strong poet” should be required to describe the relevance of his work to a community with which it may resonate. This is an activity that many creative practitioners resist – it may be seen as a distraction from their work, as an activity that closes down possible interpretations, an activity that involves adopting a perspective that is not conducive to their practice. Perhaps it is unreasonable to expect individual design practitioner to be involved in forms of articulation beyond the development of the artefact. This articulation must, however, take place in the context of
validating the genuine contribution that the artefact makes to the discipline. The university should be one of the sites of such articulation.

Finally, Heidegger’s articulation of the referential contexts that shape our concerns and practices provides a framework for talking about modes of research where the innovation might be considered to lie beyond the artefact. My interest here is in models of practice based research. In all but the most routine of design situations the development of a successful outcome involves making significant decisions with regard to a diverse range of referential contexts. There is potential for practice based research to contribute to the development of the discipline on a number of fronts. In the case where the design situation is distinctive – there is perhaps a requirement to work with new materials, new technologies, or a new social situation – the contribution would be in the form of judicious selection of referential contexts in determining how to respond the novel design situation and/or evaluate the outcome. Design innovation often arises from the depth and breadth of the referential contexts explored in the development and/or evaluation of the design outcome (Kelley 2001). The research contribution here would revolve around the identification and exploration of referential contexts beyond those normally considered in the development and/or evaluation of that genre of artefact, and in the development of appropriate design responses. Finally, there is considerable scope for contributions that bring clarity to the skills, orientations and processes that shape, or that have the potential to shape, the development of design outcomes. For example, Schon’s [1987, p49] analysis of protocols drawn from an architectural student’s critique draws on the metaphor of the frame to describe the act of configuring a design situation in the light of a distinctive approach developed by the architect Alvar Aalto. Designers rarely articulate these frames of reference, nor do they tend to explicitly interrogate their histories or implications. A longstanding model of this form of investigation is Joern Utzon’s Platforms and Plateaus [1962].

Conclusion

The Western philosophical tradition has overlooked those forms of truth that are closest to us – assertions which draw attention to aspects of the referential wholes that govern our concerned engagement with the world – focussing instead on assertions that point to present-at-hand entities – the sort of entities that can be decontextualised from our everyday practical concerns and recontextualised in terms of “world pictures” (theories). Designers, as makers, engage constantly with referential
wholes – adopting and/or developing appropriate frames of reference as they respond to design situations, making judgements about the final form of design outcomes with reference to relevant referential wholes, and in the case of “strong design” bringing to the fore implicit aspects of referential wholes and/or reconfiguring those referential wholes.

The relationship of the maker to truth should be articulated. Questions of truth should play a central role in the development of validating contexts for design research. Space must be made to acknowledge the truth of work that explores the potential of artefacts to deepen and broaden our understanding of ourselves, of each other and of the world. Definitions of research and/or knowledge should be interrogated and developed in ways that acknowledge the truth of assertions that draw our attention to the referential wholes that circumscribe our deepest and closest concerns.

References


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1 See Scrivener (2000) for an argument that suggests that visual art (and by implication design) should be seen as "apprehensions of potential ways of seeing situations" and are not, therefore, primarily about knowledge.

2 See Delanty 2001, p.158 on the role of the university in fostering technological citizenship.