

The Multiple Perspectives of Design Research

A wide-ranging anthology about design research in Sweden covers the entire spectrum of the field of design research, which is both broad and hard to define. With its many excellent articles, the book 'Under ytan' (Beneath the Surface) is an important contribution to the ongoing discussion about what design research really is, and how it relates to the practice field in design.

By Mads Nygaard Folkmann

"Design research is about going beneath the surface of the things that may appear obvious. Asking more questions, trying out more approaches, examining more possibilities, and making this knowledge available to everybody," states the preface to the anthology Under ytan: En antologi om design research (Beneath the Surface. An Anthology About Design Research).

Editor Sara Ilstedt Hjelm and Robin Edman from the design promotion organisation SVID, Swedish Industrial Design Foundation, state that the purpose of the anthology is to highlight Swedish design research. This has clearly been achieved with contributions from the entire range of design research.

The anthology, which targets the informed, general-interest reader, ranges from contributions revolving around theoretical clarification to contributions based on specific cases, which discuss design methodology and the application of holistic approaches and user perspectives in the design process. There are contributions about the cultural implications of design, for example in relation to the creation of gender differences. Other contributions address the interface between design, art and innovation, and several contributions examine the relationship between design and the marketplace and the use of design in companies. They ask the essential question whether it pays for companies to use design.



Under ytan: En antologi om designforskning. Eds. Sara Ildstedt Hjelm. Raster Förlag and SVID, Stockholm 2007. 351 p.

Research in a Practice Field

Underlying the many different perspectives and approaches in the anthology is a debate about what it is specifically that characterises design research, and why it is important and relevant to maintain a research perspective on a practice field such as design. Several of the contributions note that design research is a relatively young, emerging discipline, which needs to define its own terms. Exactly because of its link to the practice field it must not be identical with (or incorporated into) a classic, academic conceptual framework and methodology.

Architect, Professor Peter Ullmark from the Royal Institute of Technology in Stockholm describes his research approach, which addresses design as something that “is not about that which is or has been, but about how it should be, based on certain conditions”: “If one wishes to capture the potential of design research, one must accept that it differs from other research practices and has to discover its own path. Design research must capture the human need to grasp and change complex issues by testing a variety of solutions based on an intuitive understanding,” he writes (p. 29).

The unique character of design research also affects the way in which knowledge is disseminated in research contexts. A classic medium of dissemination is the scientific publication with numerous words and few images.

In relation to this, Jonas Löwgren, professor of interaction design at Malmö University, asks whether it might be possible to develop new publication forms, for example characterised by offering “semi-abstractions”, i.e. contributions that “would have to apply to other situations than the original design situation although they do not lay claim to complete generality” (p. 156). Similarly, he also calls for publication forms that reflect the temporal dimension of interaction design.

Discussion of the Research Concept

Several of the contributions address Christopher Frayling’s division of design research into theoretical-conceptual research into (or about) design, methodological-instrumental research for design and experimental-hypothetical research through design. The authors do this in order to establish a framework for their own type of research or to place the various research components into one overarching context.

In a contribution with far-reaching methodological implications, Daniel Fällman, Ph.D. and research director at Umeå Institute of Design, Umeå University, discusses how design research can be viewed as consisting of three components: design practice, explorative design and design studies.

Design practice deals with the ‘real’ dimension of design and relates to design practice in companies. Explorative design is about considering what might be ‘possible’ in a societal and cultural perspective. Design studies have to do with reflectively understanding what is ‘true’ in the design process one has been involved in.

Fällman makes the clear point that what makes design research an independent discipline is its ability to distinguish between the dimensions of design research and relating to them. “The specific quality of design research is the capacity to move between these areas in a controlled and deliberate manner,” he writes (p. 263).

This is the closest the anthology comes to an actual definition of design research coming from the design area itself. It is a definition that is not based on specifying what the discipline ‘is not’. Furthermore, the model is operational, David Fällman points out, noting that it is applied in the Ph.D. programme at Umeå Design Institute, where everyone is obliged to work with all three types of research.



[Fallman, D. 2008. The Interaction Design Research Triangle, Design Issues, MIT Press.]

A model for design research. Daniel Fällman points out that design research should include three dimensions: a reality-oriented design practice, a dimension of explorative design where the possible is addressed, and an aspect of theoretical design studies. Illustration from <http://daniel.fallman.org>. The model was also published in Design Issues, Volume 24, Number 3, Summer 2008, p. 4-18.



Powering up design research. Power Aware Cord from the research project Static! contains a luminescent wire that shines more or less brightly, depending on the amount of power it carries. The project is design research in the sense that it examines how energy can be turned into a design material. Additionally, the project has a clear commercial potential, as the cord is currently in the process of product development. Design: Sara Ilstedt Hjelm.

The Connection Between Design and research

A key issue addressed by several of the contributions is how research is even capable of connecting with the design field. That is to say, why bother with research, since design is essentially a practice discipline? With his model, Fällman offers one suggestion, which is that research makes it possible to cover the full range of the design field.

But the anthology also has more specific suggestions for using research to propose models for working with design for an, as yet, unknown future. These suggestions have to do with setting up a 'design programme' as a framework for one's work within a span of open perspectives and fixed requirements, or with carrying out a 'systems analysis' that not only analyses the design issue at hand but also puts it on a manageable scale.

Johan Redström, Senior Researcher at the Swedish Interactive Institute, points out in his contribution that experimental design research may provide "the concrete images of the possible unlike the abstract images of the actual provided by other types of research" (p. 170).

This also implies a critical perspective where, in Sara Ilstedt Hjelm's words, one may use research to "visualise alternative scenarios and critically or exploratively examine the meaning and usage of products" (p. 121).

Sara Ilstedt Hjelm, who in addition to being a co-editor of the book is also a professor of product and service design at the Royal Institute of Technology in Stockholm uses the project Static! as an illustrative example. This project used experimental 'research by design' to examine how energy can be approached and understood as a design material. For example, the project developed the prototype for a "Power Aware Cord", an electric cable that lights up in varying degrees of brightness depending on the amount of power surging through it.

The Societal Potential of Design Research

Maria Nyström, an architect and a professor at Chalmers University of Technology in Gothenburg, also addresses the connection between the practice field and research. She points out that design is "inter- or trans-disciplinary, proposing a synthesis, a fusion of various knowledge areas within a certain defined context" (p. 108).

She believes that the task of design research is to enlighten or look behind the "tacit knowledge" that is often reflected in the holistic design perspective. Here, Maria Nyström sees a major democratic potential, as it gives design research access to the societal debate and gives citizens a voice in the otherwise tacit process.

"All sciences are becoming design sciences," says Bo Dahlbom, professor at the IT University in Göteborg, because all sciences are headed toward having to handle the manmade, the artifacts. Here lies a tremendous potential and, most importantly, a tremendous challenge for future design research:

"Thanks to amazing technological developments, humanity has acquired such power over nature, our society and our bodies that the questions about what we may achieve, what we ought to be pursuing, and how we ought to shape the world and our society have become more important and more interesting than all the questions concerning the nature of reality," says Bo Dahlbom (p. 139).

DANISH CENTRE FOR DESIGN RESEARCH

The Danish Centre for Design Research DCDR comprises the design researchers at the Aarhus School of Architecture, The Danish Design School, Designskolen Kolding and the Royal Danish Academy of Fine Arts, School of Architecture. The DCDR aims to contribute to establishing a strong design research environment in Denmark and to strengthen the exchange of knowledge about design research and facilitate the identification of potential areas of collaboration for researchers, schools and enterprises, on a national as well as an international level.

MIND DESIGN

Mind Design, DCDR Webzine is published once a month and features articles and interviews about current Danish and international design research. Mind Design aims to present design research and research findings from researcher to researcher as well as from researchers to design practitioners in general. The webzine is free of charge. Please see www.dcdr.dk/uk/minddesign

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