

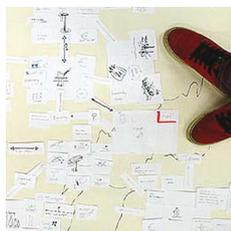


## “Getting Going” – Research by Design

Andrew Morrison, Birger Sevaldson

### Editorial

Research by Design is the theme of this first special guest edited issue of FORMakademisk. In this issue we look into a growing domain of design research that takes up relations between practice and theory that are pertinent for inquiry in the interdisciplinary approaches and frameworks that are often central to research in design (Rust et al. 2005). As the articles gathered here show, this is research that spans a range of established and emerging areas and their methods and analyses. The articles indicate how far design research has moved from earlier locations in craft traditions and historical analyses and characterisations and perspectives lodged in industrial design. These views do still matter, but they are now part of the changing profession of design and a burgeoning body of international research.



## Discussions & Movements in Design Research

A systems approach to practice  
research in design

Birger Sevaldson

### Abstract

The main approach of this paper is to look at design research from a systems-oriented perspective. This implies that design research is understood as a dynamic and emergent field of interrelated or contradicting thoughts, concepts and ideas. The first three sections of this paper draw cross-sections into the emerging richness in design research as it matures as a genuine mode of knowledge production. They address some of the positions, concepts, and discussions going on in the field, arguing that practice research in design is the most central. The current state is discussed and the relation between design research and other modes of knowledge production are looked at. A main tendency seems to be that design research is moving towards greater complexity both in issues and approaches and that Research by Design is becoming ever more central. Research by Design emphasizes insider perspectives, a generative approach, operates in rich and multiple layers and relates to real life contexts. The output is new communicable knowledge that is only found within design practice. The next two sections of the paper discuss the various possible relations between design practice and reflection. These span from distant perspectives where design practice is observed by outsider researchers,

looking at practice retrospectively or contemporarily as in case studies, to participatory research and insider perspectives where the designer-researcher uses his or her own practice as a means for investigation and a bases and subject for reflection and knowledge production. The last section proposes the critical application of multiple perspectives, methods and media in composite approaches to design research. This analysis does not claim to provide a complete picture, but it suggests a method of looking at the field of design research in both a more holistic and more specific way. This could be helpful to position the individual design researchers approach in the complex landscape of design research. Arguing that ‘traditional sciences’ are very complex and manifold, design research is in itself a very complex, if not one of the most complex field of knowledge production. The paper claims that such a complexity demands an equally rich repertoire of interrelated methods and positions.



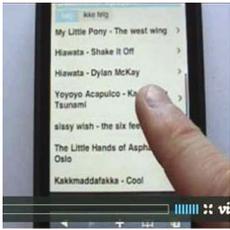
## Performance-oriented Architecture

Towards a Biological Paradigm for  
Architectural Design and the Built  
Environment

Michael U. Hensel

### Abstract

This paper introduces and elaborates a specific approach to architectural design entitled ‘performance-oriented architecture’ based on a redefinition of the concept of ‘performance’ in relation to the discipline of architecture and set within a biological paradigm. The concept of ‘performance’ evolved out of a series of intellectual efforts that had broad consequences, bringing about a paradigm shift in the humanities referred to as the ‘performative turn’. These efforts commenced in the 1940s and 1950s and had significant impact also on the sciences, deriving what is referred to as the ‘performative idiom’. Here the question is raised as to what ‘performance’ in the context of architecture may entail. The approach introduced contrasts previous ones that focused either on questions of representation and meaning in architecture, or, alternatively that have treated performance as synonymous to function placed in the context of post-design functional optimisation. Contrasting these previous efforts performance is here reformulated as a driving concept for design that helps reconsolidate form and function into a synergetic relation with the dynamics of natural, cultural and social environments, and in so doing, locate performative capacity - ‘active agency’ - in the spatial and material organisation of architecture, in the human subject and the environment through the dynamic interaction between these four domains. In pursuing this approach the potential of a close disciplinary affiliation between architecture and biology is examined, so as to locate a suitable paradigm for performance in the discipline of biology and its various sub-disciplines, in its various foci and modes of inquiry, and, moreover, in biological systems.



**Have You Heard This?**  
Designing Mobile Social Software

*Jørn Knutsen & Andrew Morrison*

**Abstract**

'Desktop' social networking services are migrating to mobile devices. Research into the design of mobile social software (MoSoSo), especially its communication design, is emerging. The case we present is from a collaborative, interdisciplinary research project into communicative design innovation concerning these technologies. In focus is the design of what we label the communicative prototype for an interaction and media centred view of social software development. This view is applied to an exploratory design research case that extends an established online social service to the iPhone/iPod platform. The conceptual design in the case is intended to enable the discovery of independent, non-commercial music. The projected service was developed in consultation with a national public service broadcaster. We frame the design and analysis within a sociocultural approach to mediated communication and research by design. We employ mixed methods both in design and in research. We argue that a communicative stance in early concept development offers valuable insights on the ongoing design of social software. The communication expertise of interaction designers is central to this.



**Connecting motional form to interface actions in web browsing**  
Investigating through motion sketching

*Jon Olav H. Eikenes*

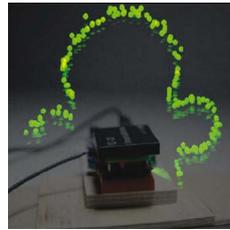
**Abstract**

It is now possible to include complex visual movement in screen interfaces, including those that enable web browsing on different media devices. This article investigates the potential for employing movement in web browsing – or more specifically, how motional form may be connected to interface actions. The investigation is carried out through design experimentation. Techniques of 'motion sketching' have been developed and utilized in a practice-based research project. The resulting motion sketches are analysed as realizations of complex mediation – by drawing on social semiotics and the concept of action from Leont'ev. The article argues that motional form is made meaningful through connotations and experiential metaphors, and suggests ten provisional principles for how motional form may be used in web browsing. This challenges notions of form and function in current interface design and how social semiotic theory may be produced.



**Bokanmeldelse: Tekstil æstetik – nytolkning af dansk kulturarv**  
*Elsie Marie Halvorsen*

Minna Kragelund  
Tekstil æstetik – nytolkning af dansk kulturarv.  
(Jyllinge): Fiberfeber. 2009. 220 s, rikt illustrert



**Depth of Field**  
Discursive design research through film

*Timo Arnall & Einar Sneve Martinussen*

**Abstract**

This article is about the role of film in interaction and product design research with technology, and the use of film in exploring and explaining emerging technologies in multiple contexts. We have engaged in a reflective design research process that uses graphical, audiovisual, and time-based media as a tool, a material and a communicative artefact that enables us to approach complex, obscure and often invisible emerging technologies. We give a discursive account of how film has played an intricate role in our design research practice, from revealing the materiality of invisible wireless technology, to explaining complex technical prototypes, to communicating to a public audience through online films that may fold broader social and cultural discourses back into our design research process. We conclude by elaborating on discursive design approaches to research that use film as a reflective and communicative medium that allows for design research to operate within a social and cultural frame.



**Designing performativity for mixed reality installations**

*Andrew Morrison, Alex Davies, Geska Brečević, Idunn Sem, Tim Boykett & Robert Brečević*

**Abstract**

This article takes up the concept of performativity prevalent in the humanities and applies it to the design of installation arts in mixed reality mode. Based on the design, development and public access to two specific works, the concept is related to a form of research by design. We argue that the concept of performativity may be further usefully employed in investigations (design and research, artistic and public) into digital arts where complex intersections between concepts, technologies, dramaturgy, media and participant actions are in flux and together constitute the emergence and experience of a work. Theories of performativity are related to these two works in an argument that further suggests there is room in research by design to also include 'performative design'. The article is the result of a wide-ranging interdisciplinary collaboration and aims to convey some sense of that in its reporting style, content and analysis.

**Les artiklene i sin helhet: [www.formakademisk.org](http://www.formakademisk.org)**  
**Flere av artiklene inneholder video.**