



We Want to Generate Innovation in Society

– Interview with Poul Rind Christensen, Kolding School of Design, Denmark

Design research should understand, challenge and develop design practice. In order to achieve this, design development activities and design research should be brought into close interaction. Through this interaction, design research will find its unique identity. That is the vision as it is described by Professor Poul Rind Christensen, head of research at Kolding School of Design, Denmark. The school recently developed a research strategy with guidelines for the school's research activities until 2014. Design's contribution to innovation, welfare and sustainability is a key theme for the school's researchers who aim to collaborate with companies through so-called learning circles.

By Hans Emborg Bünemann

The objective for Kolding School of Design is to become a university that generates new knowledge through development-based

research by strengthening the interaction between research and practical design work. For the school's head of research, Professor Poul Rind Christensen, the key is the crucial role that design plays for society's innovation dynamics. The understanding of this role should be a pivotal theme for research at the school in the years to come.

Interaction Can Promote Innovation in Companies

"Design development work almost always involves challenges where research can contribute with new knowledge. That's why we apply the term development-based research. On the other hand, it should be a characteristic of design research that it applies design methods and experiments in research and incorporates empirical knowledge from real-world design work," Poul Rind Christensen explains. "This interaction between design practice and design research has a huge potential for promoting innovation in companies."

In the future, Kolding School of Design will be more selective with regard to the research projects that the school chooses to

become involved in. The projects will always have a finite time frame, but they must contribute to the long-term development of knowledge within a number of basic themes of disciplinary substance under the overriding interdisciplinary headlines of innovation, sustainability and welfare. One of the means for pursuing this is to include Industrial Ph.D. scholars in the projects. Another is to establish strong learning circles to connect researchers, design professionals and companies or public organisations.

Mapping Hospitalised Children's Experiences

As an example, Poul Rind Christensen mentions Ph.D. scholar Eva Knutz' project, which uses the development of a computer game to generate methods for mapping hospitalised children's feelings. "It's hard for young children to express their feelings verbally. In their efforts to offer every child the best possible treatment, hospital staff would benefit greatly from knowing an individual child's feelings and expectations in relation to the various phases of the hospital stay and to the less pleasant aspects such as examinations, blood samples and the experience of spending the night away from home," he says. The project is anchored in real life in a children's ward and thus interacts directly with the outside world rather than with abstract, constructed models.

In collaboration with the Paediatric Ward and the Research Unit at Kolding Hospital, Eva Knutz has developed a pilot version of the computer game. After the trial she adjusts the structure, programming and visual design of the game to improve its ability to pick up information on specific emotions; the next step is to test the revised version of the game in the hospital, analysing and interpreting the outcome of the children's interactions with the game. "It's an iterative process where experiments and research combine to generate knowledge in a way that I would call interactive perception," Poul Rind Christensen explains. "A learning circle

has been established that involves Eva Knutz, the nursing staff and the medical professionals, and which promotes the production of knowledge. Eva not only studies what is but that which is coming into being."

Interactive Perception

"Much research is driven by theory and carries out empirical studies with the purpose of testing hypotheses", says Poul Rind Christensen. "In addition to this deductive method, which uses the real world as its *test field*, research often takes an inductive approach where the researcher's empirical studies form the basis for the development of theory. In contrast to both these approaches, the development-driven projects in our school apply a so-called interactive method. We develop new knowledge in close collaboration with the projects' stakeholders."

Poul Rind Christensen explains that the strategic emphasis on this interactive approach at the design school is motivated by the fact that design is an act that arises in and generates an open space. But it is also related to research funding. A growing share of the design school's research funds comes from outside sources.

Companies in Learning Circles

"In order to attract interested companies, we give priority to development activities that have the potential to lead to design concepts, patents and new understandings of the ways in which companies can use design," he says. "We provide the link with research and create learning circles to connect researchers as well as development projects of direct relevance for the projects' stakeholders, whether we're talking about private or public organisations." As an example, Poul Rind Christensen mentions the development project *etrans*, which has a key position within the design school's research theme sustainability. The project, which is co-funded by DONG Energy, aims to generate knowledge about

"We develop new knowledge in close collaboration with the projects' stakeholders"

Poul Rind Christensen, head of research at Kolding School of Design, considers researchers' interactions with practitioners to be crucial for the capacity of design research to contribute innovation in society. Photo: Flemming Jeppesen, Focus Foto





The computer game E-Game (Emotion Game) is pilot-tested at Kolding Hospital, 2009
Photo: Eva Knutz

the future design of sustainable transport in Denmark – including infrastructure for electric cars – in order to make it successful with consumers.

“In the development process, knowledge needs arise that can only be met through research. Here, Associate Professor Anne Flemmer Jensen, who is in charge of research in the etrans project, contributes with user analyses and anthropological field work. Her research-based knowledge about user segments, for example about the users’ transportation perceptions and needs, have an important influence on the approach to design aspects of infrastructure development,” says Poul Rind Christensen.

Research that is Effective in Practice

The learning circles that are established to connect researchers, DONG Energy and other business partners ensure that the development project rests on research-based knowledge production. The intensive involvement of the partners also ensures that the proposed solutions developed in the project will be applicable in practice.

“Companies such as Peugeot, Aarstiderne and the car rental firm Sixt ensure the implementation relevance of the design solutions. In this way, they contribute to new knowledge of substantial and often overlooked relevance: knowledge about the implementation of new design solutions. The learning circles are the means for creating the interactive insights that can enrich both design research and design practice. This enables research to make a substantial contribution to the dynamics of an innovative society,” says Poul Rind Christensen and continues with a reference to the German researcher C.O. Scharmer’s ideas about the new university: “In the design school of the future, researchers are not just distant observers of that which exists but creative co-designers of a new practice.”

The 2009-2014 research strategy for Kolding School of Design (PDF)

Eva Knutz’ Ph.D. project *Spilbaseret Design med fokus på pædiatriske patienters emotionelle værdier* (Game-based design with a focus on paediatric patients’ emotional values) is scheduled for completion in 2012. The partners in the project are Enhed for Sundhedstjenesteforskning (Unit for health services research), Kolding Hospital, and Institute of Regional Health Services Research, Faculty of Health Sciences, University of Southern Denmark.

Read more about the development project *etrams*, which aims to help make the electric car an environmental as well as a commercial success in Denmark.

Read the article from Mind Design #23: Design Researchers Want to Turn Danes on to Electric Cars.

Käufer, K., & Scharmer, C. O. (2000). Universität als Schauplatz für den unternehmehnden Menschen. Hochschulen als ‚Landestationen‘ für das Indie-Welt-Kommen des Neuen. In S. Laske, T. Scheytt, C. Meister-Scheytt & C. O. Scharmer (Eds.), *Universität im 21. Jahrhundert. Zur Interdependenz von Begriff und Organisation der Wissenschaft* (Vol. 1, pp. 109-134). München und Mering: Rainer Hampp Verlag, ISBN: 3-87988-495-1.

[Link to English translation of the article \(PDF\).](#)

Cover illustration: Screenshot from the computer game E-Game (Emotion Game), which Ph.D. scholar Eva Knutz is developing with a view to uncover hospitalised children’s emotions.

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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.

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