MAKING RESEARCH TANGIBLE
Readership Strategic Creativity Design Academy Eindhoven

How can knowledge creation support creativity in playing a more strategic role in service innovation for society and the economy, by positioning 'making' at the core of conducting research? Within the Readership in Strategic Creativity at Design Academy Eindhoven, as a part of CRISP (The Creative Industry Scientific Programme), we strongly believe that designers can play a vital role society and business innovation, if their skills and ways of thinking are applied in the very first stages of an innovation process.

CRISP is a Dutch national research programme spanning eight research projects, in which Design Academy Eindhoven collaborates with three Technical Universities, two Universities in Amsterdam and over 50 industry partners, design companies and service providers. Looking beyond the idea of products as just products and services as only services, the focus of these projects go beyond the traditional paradigms of product design and service design and works towards a combination of the two: Product Service Systems (PSS).

Through a 'Thinking through making' approach, Research Associate Karianne Rygh has contributed two years of research to the Crisp programme, investigating how the use of tangible tools can foster collaborations within complex networks by making networks producing PSS more understandable for all stakeholders operating within them. Together with the partner company Canon Océ, Rygh has investigated what role the creative industries can play in determining new applications of Canon's innovative 2.5D printing technology, and what new applications could be found in the field of architecture. As an outcome, Rygh created the Super-Maker, a workshop methodology bridging the innovation gap between new technology and client or end user operating it.

Thinking Through Making

2.5D printing is high resolution printing on elevated surfaces and thereby a 3D fabrication technology. The starting point of the research was for the designer (Research Associate) to master and explore the 2.5D printing design process and thereafter design a 'minimum viable product' (Ries, 2011), (which was a 'minimum viable 2.5D sample' in this case), to present to architecture studios in order to collect the as much 'validated learning' about potential customers and possible applications of 2.5D, as possible.

Figure 1

Through this phase, Rygh designed an archive of explorations in 2.5D as a sample book which was presented to architecture and design studios such as Marcel Wanders Studio

(Figure 1), CC Studios and Next architects. However, the multiple interviews produced journalistic responses that didn't generate the new knowledge the researchers or Océ was looking for. Rygh instead tested how the discussion could be brought to a new level, less generalized and more of specific interest to each creative professional through the design of the Super-Maker workshop. Taking inspiration from the maker environment in FabLabs, the Super-Maker is a framed environment structured to gather all relevant stakeholders and experts, (architects, designers, researchers and Océ printing and business experts in this case) in co-creation sessions producing tangible 2.5D representations of the discussions and ideas that occur between stakeholders.

Figure 2

Figure 3

Through several case study workshops, the architects were taught the 2.5D design process and introduced to the 2.5D sample archive, representing the various tracks of research Rygh had conducted. This combined served as tangible triggers for conversation, initiating co-creation of new 2.5D samples, which were used as triggers for discussion in the following Super-Maker workshops. The participants (Figure 2&3), thereby became extensions of the designers' more strategic roles, (such as visualiser, connector and instigator, Value Pursuit 2014) by the fact that they were visualizing their own discoveries and using these to communicate their ideas.
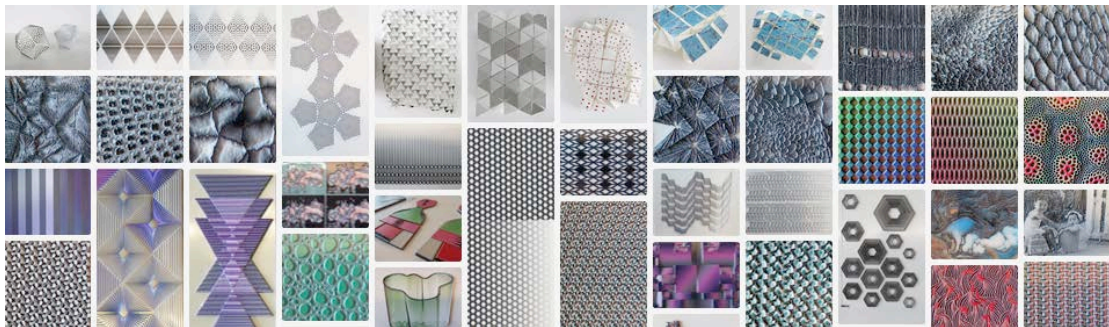

Figure 4

Utilizing a 'thinking through making' approach for understanding stakeholders' needs and 'dropping something on the table' (Stappers, 2014) in order to get them to imagine and see the potential in their own and each others innovations, contributes to guiding new ideas through an organization. It is often difficult to get people on board when they are not fully informed, nor do not have a proper understanding of the concept in question. Embodying the explorations and research in tangible objects (Figure 4) have contributed to triggering discussion and dialogue with relevant stakeholders within Canon Océ, allowing them to communicate with one another in new ways.

(Figure 5)   (Figure 6)   (Figure 7)

In collaboration with external designers, architects and students from the Design Academy Eindhoven, the archive of tangible research was exhibited during the Dutch Design Week 2014 (Figure 5,6,7), displayed as a non-linear time line. The creation of this timeline was conducted as an analysis of the research itself, leading to new insights on how the technology could be understood, developing categories of ideas and sample that each lead to different directions of possible applications and new collaborations.