Developing Visual Collaborative Tools

Stephanie Missonier  
Faculty of HEC, University of Lausanne  
Stephanie.missonier@unil.ch

Kalle Lyytinen  
Case Western Reserve University  
kalle.lyytinen@case.edu

Yves Pigneur  
Faculty of HEC, University of Lausanne  
yves.pigneur@unil.ch

Collaboration has been increasingly required to address the current challenges faced by organizations. With digitalization, these challenges are more and more complex but have common characteristics: they concern the organization as a whole, involve different and heterogeneous people, and are dynamics and evolve during the organization’s lifetime. Moreover, they are at the heart of a paradox: they are of paramount importance for companies but they are very difficult to grasp. For a same topic, practitioners have often very different definitions and perspectives whereas each challenge needs to be collectively addressed as the result of discussion and inquiry from different perspectives. These challenges are, for instance, business model elaboration and transformation, digitalization process, creativity fostering, innovations’ selection and implementation, data strategy and management, or brand identity creation and management.

These last few years a “new” generation of tools has appeared. These tools were commonly called “canvas” as they were initially inspired by the Business Model Canvas. In fact, we call this family of tools: visual inquiry or visual collaborative tools. These tools have common features that allow teams to address the aforementioned challenges:

- First, they are visual which allows teams in organizations to have a shared language and understanding of the problem they are trying to solve.
- Second, they assist teams in exploring and/or brainstorming on a given problem thanks to their support for structuring and bounding the problem.
- Third, these tools have been developed to aid a less linear and more creative and innovative process mainly relying on design techniques as they allow a social design process, which has been proven useful to increase teams’ engagement within projects.

Given the increasing amount and use of such visual inquiry tools, it seems crucial to accumulate knowledge on how to develop and evaluate them, i.e. the design processes of such tools and/or their modelling, as well as, their ontological and/or cognitive foundations. This has been the main motivation to launch this new mini-track at HICSS-52, as we believe that the IS discipline is well-suited to contribute to the design of such visual collaborative tools as it has a long tradition in design science research, modelling and UX.

With this mini-track, we aim at gathering and reinforcing the knowledge on such tools’ design, development, related theoretical explanations, justifications, as well as empirical evidence of use. The ultimate goal being to provide clear and rigorous conceptualization on the form and function of such tools.

We thank the authors who have submitted in this new mini-track. The four selected papers are all concerned with a specific and important organizational challenge, such as innovative ideas selection, ideation and development process of data-oriented products and services, or brand identity design. Each of them relates the design and evaluation process of a visual collaborative tool to address this challenge.

The first paper, Transforming Haptic Storyboards into Diagrammatic Models: The Scene2Model Tool by Elena-Teodora Miron, Christian Muck and Dimitris Karagianis relate their approach to support the work of distributed and multidisciplinary teams during their design thinking process to innovate. The authors propose
a tool to go far from the storyboard technique by helping teams to automatically transform the created result into a digital model (into the scene2Model). The second paper, *The Idea Arc: Designing a Visual Canvas for Fuzzy Ideas* by Alejandro Lecuna Aguerrevere, Katja Thoring and Roland M. Mueller, introduces their visual inquiry tool (the Idea Arc) and its development process. This tool facilitates the team process of transforming fuzzy ideas into mature design concepts in order to avoid missing innovation opportunities. The third paper, *Data thinking: A Canvas for Data-Driven Ideation Workshops* by Tizian Kronsbein and Rolan M. Mueller attempt to bring design thinking into to development of data-oriented products and services to non-experts by the means of a collaborative visual tool. Finally, *A visual identity tool for brand identity* by Dina Elikan and Yves Pigneur tries to demonstrate the development of a visual collaborative tool to support the development of a brand identity in startups and SMEs.