
Tools for Inspiration Seeking: Raising Open Questions

Janin Koch

Aalto University
janin.koch@aalto.fi

Andrés Lucero

Aalto University
lucero@acm.org

Abstract

An increasing trend toward the digitalization of design practice and research on tools for augmenting creativity will encourage novel ways of designing in the future. Especially, tools for collecting and interacting with digital inspirational material present great opportunities for current design practice. However, the complex nature of such highly creative practice raises new challenges and questions in relation to such developments. We present three tools for inspiration seeking as a base for discussing open questions identified in our previous work. These tools vary in their agency within current practice for seeking and interacting with digital inspirational material to allow a wider scope of analysis. We intend to use these questions to discuss future guidelines for designing such tools and systems.

Author Keywords

Inspiration Seeking; Digital Design Material; Interactive Systems.

ACM Classification Keywords

H.5.m. Information interfaces and presentation: Miscellaneous;

Introduction

The digitalization of design practice and increasing research on tools for supporting and probing creativity presents new opportunities and challenges for more advanced and impacting system. This change is driven by the increasing complexity of commercial design tools, such as Adobe UX, the extensive research on design supporting tools in Design Research and Human-Computer Interaction (HCI), and the thrive for creative machines by the Machine Learning community. While these fields are all working towards a common goal, their relation and impact on design and design practice raises new questions relevant for future research.

In this position paper, we highlight questions related to different levels of agency of inspirational tools. As a discussion base we present three examples of our work which we present in the following sections: 1) online design platforms for inspiration seeking, 2) interactive tools for collaborative inspiration seeking, and 3) collaborative systems for inspiration seeking.

Inspiration in Design Practice

Designers habitually seek inspiration during the design process from pre-existing related designs [1], including browsing magazines and the Web, as well as their own previous work. According to Siangliulue and colleagues [9], the quality of the inspirational set is defined by the creativity of each individual inspirational item as much as the overall diversity of the inspirational material. Hence, inspirational examples can be retrieved from either one's own previous work as well as from newly discovered material from external sources. Hence, the quality of the inspirational set depends on the individual-specific skills of each designer, and the available resources of external inspirational material. Looking at

similar products and other design examples helps designers diversify their thinking [2]. This aspect has encouraged researchers to develop tools for supporting designers in the process of seeking, presenting, and storing inspirational material.

Three Tools for Inspiration Seeking

Online Platforms for Inspiration Seeking

In the last decade many online tools and platforms emerged to enable the collection and seeking of visual and concept material for various purposes. Some of these online communities such as Behance and Pinterest, showcase portfolios and user-made artwork, and offer support for designers' day-to-day work to find and collect inspirational visual and solution material. However, these tools also shape and modify the way designers seek and reflect on the material they found.

Based on a survey of 51 professional designers about current inspiration seeking practice for interaction design projects [4], we concluded that the Internet has become a prevalent source for ideas in design, however designers reported mounting issues of trust and relatedness with regard to online sources introduced by these digital tools. These issues mostly relate to the unknown background, use, intention of project related material like "I can never be sure what kind of research they did [...] or if they target a different group of users" [4].

Within this context other practitioners and researchers pointed out, e.g. [8], that centralizing digital design sources in platforms such as Dribbble, has the potential to create a general idea of 'good design' resulting in an increasing number of homogeneous design solutions. Reflecting on this issue under the lack of understanding

and trust of presented material pointed out in our work, we see an open question in how to encourage diversity, trust and understanding within digital inspirational tools to counteract these issues.

Interactive Tools for Collaborative Inspiration Seeking

A second example of tools for/in inspiration seeking practice consists of interactive tools for collaborative inspiration seeking. Research in surface computing has traditionally been driven by technology. A project that explored ways to provide support for professional users in their work with novel technology by focusing on people instead was presented in [7]. A co-design approach was applied by systematically involving end users (i.e., industrial designers) throughout the design process. In a series of activities with fifty designers, the creation of mood boards [6] was first identified as an important task for them, and then studied in depth. The funky-design spaces vision of a holistic design studio housing interconnected tools that support the creation of mood boards was co-designed, brought to life in two prototypes, and evaluated with designers. The results suggest these environments could stimulate designers to break away from their desks and encourage collaboration with more people.

Collaborative Systems for Inspiration Seeking

Human-Computer Collaboration offers great potential for explorative and creative tasks like inspiration seeking. The concept of collaboration here suggests work on equal terms by all participants of an interaction to achieve synergy effects as in collaborative creativity. However, the uncertain nature of creative problems raises new questions regarding the potentials of intelligent, self-acting systems as an equal participant within such a process. This is mainly related to the

adaptability of systems to changing perspectives in iterative processes as well as the modelling of interaction with such a system in an inspirational context. In our current work, we build a collaborative system for mood board design based on a state-of-the-art contextual bandit structure that is able to iteratively adapt to changing behaviors and moves autonomously through the creative space to propose suitable contributions for a current mood board [3]. During the development of the system we were confronted with several open questions ranging from: what is creative behavior in the context of inspiration seeking, to what is collaborative behavior in this context from a system perspective. In previous work on collaborative behavior [5] we identified the need of grounding and reciprocal theory of mind as an underlying cognitive necessity to enable collaboration within a group. However, this requires a complex interaction of varying levels of expressibility, values and agency, among others, which we are still exploring. Beyond the ability to act as an own instance in a collaborative setting, we see further research potential on the social and cultural implications of self-acting systems especially in sensitive contexts like inspiration and ideation.

Discussion

In the context of our research, we highlighted open questions related to tools for supporting, mediating and acting within inspiration seeking processes. While these questions are not exclusive we would like to encourage the participants of this workshop to reflect on these questions as probing material for discussing and developing new design guidelines for such tools.

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