Supporting Reflective Use of Design Idea Archives Using Email

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Abstract

In this paper, we present the findings of a pilot study where we randomly resurfaced professional designers' own archived ideas to them over a period of three weeks. We find that resurfacing ideas can provide reflective and creative value to designers by encouraging them to reflect on their old ideas, reflect on themselves as practitioners, and as motivation to pick up forgotten or dormant ideas.

Author Keywords

Design ideas; creativity support; resurfacing ideas; reminiscence; idea management.

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

Capturing and archiving ideas is essential for creative designers for reasons beyond memory aid. Archives of ideas allow designers to retrace their steps and to reflect on the finished design product as well as the design process and rationale behind key decisions [7,17]. Designers and many other creative practitioners build repositories of dormant or potentially useful ideas, that they may or may not return to [3]. Previous research has studied how designers use external

About the participants

4 male and 1 female designers took part in the study. Participants were recruited from Facebook groups for designers. Participants were between early 20s and 40s, with experience in design between 2 and 11+ years. All participants had an educational background in design. They worked with graphic design, UX, and illustration, and were selected because they represented different strains of creative design.

Full list of questions asked about the resurfaced ideas, random order:

- Describe what this idea made you think of, in three words.
- How could this idea bring value to your work today?
- How could you use this idea today?
- Does it make sense to you to see this idea again? Why/why not?
- What does it make you think of to see this idea again?
- What would it take to make this idea valuable to you today?
- What is the best/worst about this idea?
- What is the best/worst about this idea or the way it has been captured?
- What is the best/worst about seeing this idea again?
- When would you rather have seen this idea again?

examples as part of design practice [6], but it has not been explored if and how designers use their own, personal idea archives in their daily design practice. In this paper we explore the following question: How might resurfacing old ideas to creative designers in a random fashion support utilization of their personal idea archives? We use an email account to do this, as it is a system integrated into most professional designers' work practices, and as simple messaging systems have previously proven to be a successful mode of supporting joyful reminiscence [2]. We focus on designers because we are interested in encouraging reflective design practice [17] which may be threatened by increasing requirements of efficiency and productivity. This research is a pilot study to provide insights for developers of creativity support tools, notetaking tools and similar systems, that hold potential to support a more long-term reflective practice with different forms of idea archives.

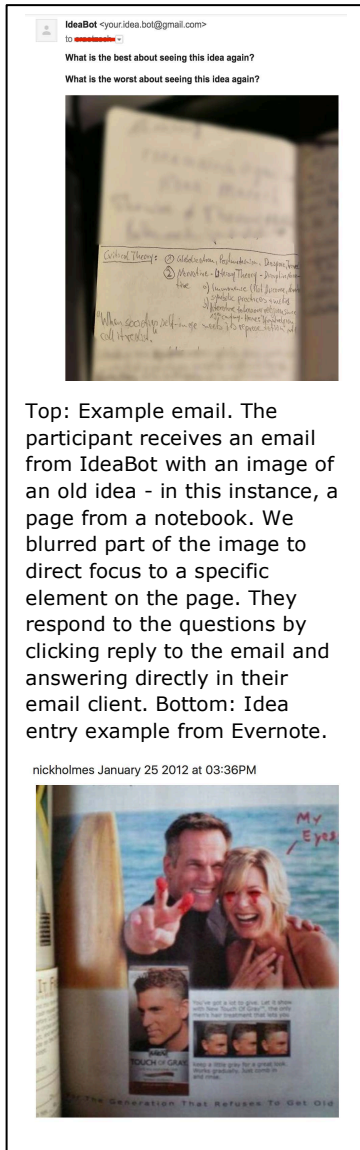## Background and Related Work

Designers build archives of personal information both digitally and physically [14,7]. The long-term value of archives for designers is highlighted by e.g. Gaver [5] in his work about design workbooks: "By serving as archives of a thought process that may extend over a long period, sketchbooks ensure that we do not discard unused ideas, but may return to them years later". Kaye et al. [10] showed that archiving serves a number of value-based goals, for instance building a legacy (showing the subject's life's work) and identity construction (archiving used as an expression and crafting of identity). The study concludes that most personal digital archiving tools to date have concentrated on the value of 'finding it later', and not invested much in addressing these value-based goals.

Kidd [12] also expressed a pledge for computer support for knowledge work to be better targeted on the act of *informing* rather than on passively filing large quantities of information.

While earlier work about design ideation has shown that being exposed to others' ideas can be useful in terms of increased productivity [e.g. 16], it has not yet been studied whether exposure to one's own ideas has any effect on ideation. Some anecdotal evidence suggests that it does. For example, Johnson [9] stated the importance of routinely reading through his archive of ideas every three months: "It feels a bit like you're brainstorming with past versions of yourself". Erickson [4] found that revisiting high quality notes created a synergistic loop: "Because the quality of my notes is higher, I reference (and reuse) them more (...). Also, the increased quality means that I am more likely to understand them when I look back at them after six months. (...) the more use I get out of them, the more effort I'm willing to put into them". Some studies have shown positive results of emailing random memories to people, and that such prompts are very well received as encouraging nostalgic reminiscence [2, 15]. In this work we are interested in appropriating similar prompts to support reflective design practice.

Method

We asked five professional designers (see sidebar for details) to share an idea archive of their choice with us. The participants were encouraged to interpret "idea archive" as they preferred. From these archives, we selected different chunks of information (some examples are provided in the second sidebar) and emailed them back to the participants at random times throughout the day, app. one idea per day. In the

Top: Example email. The participant receives an email from IdeaBot with an image of an old idea - in this instance, a page from a notebook. We blurred part of the image to direct focus to a specific element on the page. They respond to the questions by clicking reply to the email and answering directly in their email client. Bottom: Idea entry example from Evernote.

emails, we asked them two or three open-ended questions such as "What is the best/worst thing about seeing this idea again?". We were interested in the types of reflection the ideas inspired (if any), and we tried to ask different forms of questions to encourage different responses each time. We received a total of 40 responses to the 40 emails we sent. The archives we received were a combination of physical notebooks, Evernote archives, Google Docs, and Trello boards. Some of the archived ideas were clearly delimited and defined by virtue of their format (e.g. one Trello card or one Evernote note per idea), and some ideas were part of larger documents. When the latter was the case, we tried to isolate single ideas by blurring out the rest of the page or document. The idea delimitation was based on subjective assessment by the authors. The emails were sent from an account created for the purpose of the study: the IdeaBot. This name was chosen to encourage the participants to imagine that this was an automatized system rather than a human sender. Following the three weeks, we sent the participants a questionnaire about their general evaluation of the study, with questions like: "What did you generally think about receiving your old ideas again?" and "What did you think about email as a format?". The total responses were analyzed with a focus on emerging themes and surprising elements - either to us or the participants themselves [1]. Our overall goal was not to draw general conclusions but to unearth creative inspiration, considerations, and questions.

Findings

Four out of five designers said they enjoyed seeing their ideas again - in some cases for purely nostalgic reasons. One designer (P2) said that they would like to keep receiving ideas from IdeaBot permanently if they could. The fifth designer (P4) said it didn't spark any reflection because their notes were written as design documentation during meetings and school assignments and served a purely functional memory aiding purpose, rather than a creative one. Whether the archive the designer shared with us can actually be described as an *idea archive* is a relevant question of definition [8], but one that we will not explore further in this work.

Finding 1: Resurfacing Ideas Can Prompt Reflection on the Idea

Resurfacing ideas can spark further reflection on the individual idea. One designer (P2) described sitting at the hairdresser on the same day as he received our prompt email and thinking about how he could implement the idea. He described three other domains where the original idea might also be useful. This designer said in the finishing survey: "*I can have a tendency to generate lots of ideas and then leave them without moving them forward (that is one of the things I would like to work on)*". Designer P3 said it was interesting to see most of the ideas again, and that some of them were valuable to a current project he was working on. He also said it reminded him that he should tidy up his idea archive, because not all ideas were equally strong. This level of reflection is most similar to Schön's notion of reflection-*on*-action, critical reflection on something after-the-fact [17].

Finding 2: Resurfacing Ideas Can Prompt Reflection on the Self

Resurfacing ideas can spark reflection on the designer's self, and where they are in terms of personal and professional development. Designer P5 described that seeing his old notes was a positive reminder about his

own development and approaches that had kept consistent over his years of work: "*The model shows a writing process, from collecting and structuring research material to writing the first draft, getting feedback, revising and creating the final text. The best is probably that my writing is still working like that*". Reflection on the self is a different flection level from reflection on the specific idea and can serve the purpose of developing the designer's *creative confidence* [11].

Finding 3: Resurfacing Ideas Can Motivate the Designer to Work on an Idea They Had Forgotten
As well as inspiring the designer to pick up a dormant idea, resurfacing ideas also has the potential to remind the designer about completely forgotten ideas. The format of this study meant designers had picked the idea archives themselves, and thus had recently been reminded of their existence. However, for the designer who provided us with a physical notebook, we saw several examples where he had completely forgotten the entries. Designer P3 replied to one email that he wished he would see the idea again at a point where he had the time to develop it: "*[The idea] prompts me to remember a book I've read, that I can also draw inspiration from. The best about the way the idea is written is that it is short and precise, and that the reference to the book reminds me where the idea comes from. Without the reference I am not sure I'd be able to remember what the premise of the idea was*".

Limitations and Future Work
We are mindful that the format of the study does not allow for broad generalizations, and that the study setup may have affected the participants' experience. The participants were asked to answer questions about their ideas, which might have prompted more or different reflection than would have been the case if they had passively received the idea. Several of the responses also said that the specific idea in that email was not particularly valuable. Filtering how much and which "chunks" of idea entries to resurface is the most significant challenge of a system like this. We imagine a latent necessity in providing enough (and the right) context to situate the idea. Two challenges in particular are yet to be explored in this line of research: How do we determine what is an idea and what is not, and how do we determine the best time and context for archived ideas to prompt creative reflection? We do, however, see significant potential for archiving tools to encourage and support reflection in practice by the random resurfacing of archived ideas.

Conclusions
In this paper, we presented the findings of a pilot study where we resurfaced professional designers' own archived ideas to them over a period of three weeks. We found that even in the relatively simple frame of this study, resurfacing ideas can encourage creative reflection on several levels. Designers especially found value in reflecting on their idea in itself, in reflecting on their personal and professional development, and in sudden motivation to work on an idea they had left dormant for a while. We find these results very promising for developers of creativity support tools as well as idea management tools.

Acknowledgements

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