

Reviewing Digital Notes in a Screensaver

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Abstract. Screensavers generally display pleasant pictures or animations, but our work discusses the possibility of using a screensaver for reminding. We ported a peripheral notes display into a screensaver to help users review digitally inked notes on TabletPCs. Demonstrating the screensaver to 18 participants was largely unfruitful as participants felt their notes became stale over time and as they felt the screensaver potentially leaked corporate data; however, they suggested a screensaver could be useful for more general reminding of items such as those in to-do lists or e-mail inboxes.

Aiding Note-Review with a Screensaver

Reviewing notes is tedious. While the meaning of handwritten notes might be deciphered immediately after writing them, the quality of notes degrade over time (Kalhikaité and Whittaker, 2007). Yet, the value of the notes themselves remains under-utilized if people cannot set-aside the time for note review.

Technology can potentially help by “bubbling up” old notes into the user’s peripheral vision, interleaving review into the normal workday. Hsieh et al (2006) designed a peripheral notes display, which was favourably received by participants. Our work looked at trying to include another group of digital note-takers to see if the suggested modifications of turning the application into a screensaver would be as appealing.

Originally, participants ran a program that displayed excerpts from handwritten notes in full-screen mode on a secondary or tertiary monitor. The program extracted text from Windows Journal files on TabletPCs and then showed up to three excerpts at a time, shuffling the order so that the sequence avoided repetition. Hsieh et al found participants, all researchers, liked the display, particularly because the serendipitous pairings of excerpts became a source of new ideas as well as helping recall previously forgotten events.

The participants, however, suggested that a secondary monitor would be more useful for extending the desktop, so we ported the application into a screensaver. A screensaver could still display information peripherally while conserving desktop space.

Furthermore, we wanted to look beyond researchers and recruited 18 TabletPC users from Microsoft's corporate campus in Reading, England. For each participant, we demonstrated the screensaver's ability to display excerpts from old notes and interviewed participants on their reactions for the new screensaver.

Reactions to the Screensaver and Discussion

Most of the participants worked in sales or related jobs and many were early adopters of TabletPCs. They readily discussed and eagerly tested the latest gadgets naturally in their work, but they remained critical of the screensaver.

While many participants said they took digital notes, they remained skeptical they needed a method for reviewing notes in their work. Often, jotting a note had short-lived utility. Most people jumped from project to unrelated project, so the notes from earlier work became almost useless over time. Seeing random notes paired together also had little value when their work rarely required cross-pollination. Finally, participants were especially wary of the uncontrolled nature of the screensaver. Participants feared the software potentially disclosed corporate secrets. One participant in sales said:

If I had that [the screensaver] going in a partner meeting, I mean, one partner on the screen while I'm meeting another – then it is completely unacceptable. I can't do that. It's potentially under NDA [Non-disclosure agreement] data.... I'm thinking, the worst case scenario here...we have this thing running in the background during a meeting, I'm on the projector, and we stop talking for a while and maybe that kicks off and, hang on a sec, a [Company X] note goes up while I'm in a [Company Y] meeting. You know? You can't have that. I would get shot. I'd be marched out...we would lose the partner, so it's too high risk.

One participant in human resources additionally expressed concern over internal information leaks as he worked on employee policies, such as benefits. Overall, the original concept of bubbling notes was less valuable than bubbling other easily forgotten information. Participants suggested repurposing the screensaver for reviewing to-do list items and e-mail headers from overfull task lists and inboxes. While the suggestions divert from the original intention of a kind of unfocused serendipity, they point to developing screensavers with reminding functionality rather than just displaying pretty pictures or animations.

References

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