

Bloom: An Interactive, Organic Visualization of Starred Emails

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Abstract

Bloom uses the metaphor of a desktop plant to remove task management from the already overloaded inbox and into a more human environment. When tasks in the inbox are starred, the email information is sent to an external touchscreen that then grows a flower for that specific task. The flower is activated on touch and the text of the email is displayed. Plucking the flower—touching, holding, then flicking the flower—removes that item from the task list.

A large number of tools exist for managing tasks. Bloom is different in that it uses an organic, passive metaphor for visual display. Instead of having a series of piling text, whether in physical or digital form, Bloom does not visually overwhelm. A single task is as visually appealing as fifty. Additionally, although numerous email visualizations also exist much of this work has to do with overall inbox visualization and/or the display of relationships [1]. There is also precedence in using metaphor to visualize email as seen in Kjen Wilkens' *Mail Garden*. Bloom is distinct in both its focus on task management and our intent at full integration with existing email systems.

Keywords: Email, task management, visualization, metaphorical display

1 Introduction

Over the past thirty years researchers have created a dense field of quantitative inquiry [2]. Media artists have also created a large amount of email-related work that reflects an experimental and poetic perspective. By combining metaphors with existing quantitative work Bloom begins to open a space for questioning between these sets of research.

Email has expanded well beyond its original communication role to include emergent functions such as task management [3]. Although task management within email is a deeply addressed problem, some of the proposed solutions are not integrated into the email system themselves, requiring users to exit the inbox and fill out a form [4]. Other solutions use yet more language for a user to process. Bloom uses preattentive markers such as color and location to passively let the user know when she has things to do. It is also integrated directly into the inbox such that no additional behaviors are required from the user.

2 Exposition

Derived from one person's emails over a week-long period, Bloom mimics an inbox to demonstrate full integration with existing starring systems. As individual messages are starred as to-do list items, a series of arrays are populated with message information including title, date and sender. Each bloom is colored-coded into four categories: Money In/Out, School, Personal and Informational. These categories of messages cluster together on screen. The initial criteria used by Bloom to classify emails were determined "by hand," but we anticipate that we will be able to apply natural language processing and filters to automatically generate categories in the near future.

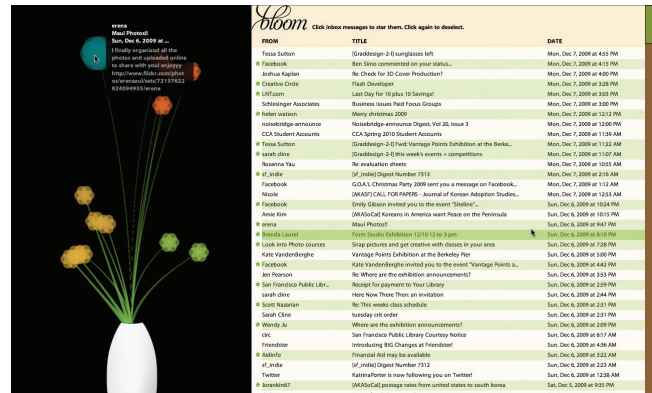


Figure 1. Inbox view (right), plant view (left).

The Bloom display is exhibited on an external monitor, which brings into a more human environment. Readers can call up important emails can by touching Bloom's touch screen, and unimportant e-mails can also be quickly "pruned out." When the user selects a flower, it grows in size and spins. Text about the message is displayed above the flower. Another touch of the same flower closes the text window, stops the spin and shrinks the flower back down to normal size. Pruning the plant, i.e., marking things as "done" on the to-do list, uses mouse behaviors on the touch screen to simulate plucking the flower off the plant. These high level interactions allow people to quickly address their incoming e-mail without having to delve into the potential distractions of their inbox.

While managers, for example, need to see, respond and delegate tasks as a primary function of their job, employees whose workflow involves creating tend to be more distracted by the constant stream of email [3]. The gentle, passive display of information allows that employee to complete her work without distraction, achieving a level of engagement that is currently very difficult to attain and sustain.

3 References

- [1] PERER, A. AND SMITH, M. 2006. Contrasting Portraits of Email Practices: Visual approaches to reflection and analysis. *Proceedings of AVI '06, The Working Conference on Advanced Visual Interfaces*. pp. 389-395.
- [2] DUCHENEAUT, N. AND WATTS, L. 2005. In Search of Coherence: A Review of E-Mail Research. *Human-Computer Interaction* 20.1 pp. 11-48.
- [3] WHITTAKER, S. AND C. SIDNER. 1996. Email overload: exploring personal information management of email. *Proceedings of CHI'96, Conference on Human Factors in Computing Systems*, ACM, NY. pp. 276-283.
- [4] CORSTON-OLIVER, S., RINGGER, E., GAMON, M. AND CAMPBELL, R. 2004. Integration of Email and Task Lists. *Proceedings of CEAS '04, Collaboration, Electronic messaging, Anti-Abuse and Spam Conference*, AAAI, pp. 134-135.