

'Today' Messages: Lightweight Group Awareness via Email

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ABSTRACT

'Today' messages are short daily status emails sent by members of a project team to each other. Their original purpose was to take the place of status updates at meetings. However, they had the unexpected additional effect of increasing group task awareness at very low cost. We present the results of a small study of 'today' messages and their effect on group dynamics.

Keywords

Group awareness, group coordination, email

INTRODUCTION

The challenge and importance of supporting coordination and shared awareness among work group members has long been recognized, particularly when group members spend limited time co-located. Researchers have experimented with a variety of approaches, including images and audio [3], tools for peripheral awareness [2], and the study of work rhythms [1]. Email in particular has long been a critical tool for group coordination. A study by Fussell et al. [4] of student project teams highlighted its importance in coordination, and suggested that an increased amount of email exchanged by a team led to better coordination.

In our project, we have made use of short daily status emails ('today' messages) to remove the need for status updates at face-to-face meetings. While successful in meeting this goal, we also found that the messages had the unexpected effect of increasing group awareness of each other's tasks and activities at very low cost. Given the substantial amount of research on novel systems for supporting such awareness in the CHI community, it is appropriate to investigate how well this lightweight technique can achieve some of these same goals using existing technology.

CONTEXT OF USE

The UrbanSim project is an interdisciplinary research group that is constructing sophisticated simulations of urban development under different possible scenarios, along with

tools for interacting with the simulations and understanding the results. Our purpose is to provide tools to support public decision-making on such issues as building new transportation systems or guiding patterns of land use, as well as on broader issues such as sustainable, livable cities, economic vitality, social equity, and environmental preservation (<http://www.urbansim.org>).

The research group currently has 19 members, including a director, a co-director, and three sub-groups: the modelers, the software engineers, and the HCI group. Although we share physical office space, the demands of classes and other commitments limits the face-to-face contact among team members. We use a number of different processes for group coordination, including a shared work request system and regularly scheduled meetings.

'TODAY' MESSAGES

'Today' messages started initially among the software engineers as part of an agile software development process, and during fall 2002 spread to the other team members. At the end of the day, each person sends a short email explaining what he or she did that day. The messages are typically sent to the mailing list for that person's subgroup. Team members are free to subscribe to other subgroup's mailing lists, and 7 people receive 'today' messages from more than one list.

The messages normally have "today" as their subject line, and start "Today I:" followed by a bulleted list. Typical list items are "attended group meeting," "talked with Y about indicators," or "fixed bug Z". Most messages are fairly short, and each person has an individual style that determines how much detail and personal information to include.

Between September 16, 2002 and December 13, 2002, a total of 500 unique 'today' messages were sent to the three mailing lists. Each mailing list received about the same number of 'today' messages over the 3-month period, with a median value of 3 per day. This reflects the flexible nature of 'today' messages – team members write them only on days they work on the project.

'Today' messages represent an interesting point in the space of possible tools to support group awareness: they rely entirely on self-reporting (rather than, for example, on automatically sensed data), and senders are free to include as much or as little information as they wish. A potential

Table 1: Selected questions from the survey about Today Messages. 1 = I Strongly Disagree, 2 = I Disagree, ... 5 = I Strongly Agree

Question (number of respondents)	Median	Avg.	Std. Dev.
1. Today messages help me stay aware of what other members of the group are doing. (19)	4 (Agree)	4.2	0.6
2. Before today messages, it was easy for me to keep track of what everyone else was doing. (19)	2 (Disagree)	2.5	1.0
3. It's worth getting more email to receive other people's today messages. (19)	4 (Agree)	3.8	0.8
4. Today messages threaten my privacy. (16)	2 (Disagree)	2.3	0.8
5. I don't worry about what information I put in my today messages. (16)	2 (Disagree)	2.4	0.9

concern with awareness techniques that require an explicit action by the user is that they might often give out-of-date or incorrect information. However, the data did not support this concern for 'today' messages, which were sent fairly consistently throughout the study period. On the occasions when a group member did forget to send a 'today' message, we noted that typically there would be a 'yesterday and today' message the following day.

SURVEY RESULTS

To better understand the 'today' messages and their effect on group dynamics, we anonymously surveyed our group about 'today' messages and received responses from the entire team. Sixteen of the respondents typically write 'today' messages, and 3 currently just read them. All felt that we should continue to write 'today' messages.

Helps Group Awareness: Survey responses suggest that 'today' messages help with group awareness (Question 1), and that before the research group started writing 'today' messages people did not find it easy to know what others were doing (Question 2).

Low Cost: Survey respondents verified our sense that 'today' messages have a low cost to read and write. The majority of group members (74%) take less than 5 minutes to read the messages. Of the 16 respondents who write messages, the majority (69%) spend less than 5 minutes writing their message. Team members are also willing to get more mail to receive 'today' messages (Question 3).

Content: One interesting aspect of 'today' messages is that it was never formally specified what information they should contain and how they would be interpreted. On the positive side, senior personnel have led by example and on occasion explicitly state things such as "today I didn't get much done." This is critical, since survey respondents "Agreed" that on days they didn't get much done, writing 'today' messages makes them uncomfortable. Informal discussions have also indicated that 'today' messages are strong motivators to complete some tasks each day so that they can be reported.

Privacy and Trust: Interestingly, all participants either became more comfortable writing 'today' messages after using them for some time (11 participants) or stayed at the same comfort level (5 participants). (The median response for feelings about 'today' messages before writing them was between "I was reluctant to write 'today' messages" and "I

didn't care one way or the other;" the median response after writing them was "I feel comfortable writing 'today' messages.") However, the responses to Question 5, as well as a number of informal conversations, do indicate that participants have concerns about the content they put in their 'today' messages. One specific concern is that the messages could be saved and examined, and then used for other purposes other than the original one, for example in performance reviews.

Appropriate Situations for Use: 'Today' messages, as we have been using them, are appropriate only for small groups. However, survey responses already suggest one strategy for handling somewhat larger groups: 8 members (42%) of the team responded that they "consistently read messages from some but not all people." Another factor is a high degree of trust among team members.

CONCLUSION AND FUTURE DIRECTIONS

We plan to continue investigating the role of 'today' messages in our group through the use of interviews and content analysis of the messages. The issue of trust and privacy also needs further investigation. To address the concern that 'today' messages might be saved and misused, we plan to investigate explicit policies (e.g. that today messages will only be used for short-term group awareness, and not for evaluation or other longer-term purposes), as well as technical mechanisms that might support this (e.g. more ephemeral kinds of messaging, somewhere in between standard email and instant messaging).

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