

WebWho: Support for Student Awareness and Coordination

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Introduction

WEBWHO is a tool developed for visualization of where people currently are located in a large university computer lab, distributed in many rooms and several floors. The system provides awareness of whom is currently present, and supports emergent collaboration and coordination between distributed users.

The issue of awareness has gained much attention within CSCW and HCI research (e.g., Dourish & Bellotti 1992, Pedersen & Sokoler 1997). However, most systems proposed to support awareness have involved a lot of overhead in order to work: specific hardware and software to be installed, login procedures, explicitly stating one's current activity, etc. Systems have also been built for visualizing the dynamics of electronic communities based on log files (e.g., Donath 1995), but such systems tend to be less useful for synchronous activities. The application described in this paper, WEBWHO, is a lightweight, value-adding service that relies on readily available server status information, which is refined and visualized in a way that is easily accessible to individuals from any workstation with a web browser.

When a student loads the WEBWHO page in a browser, the system takes a 'snapshot' of all users that are currently logged in. A schematic view of the lab rooms is displayed, arranged as a map of the building. Students can locate their friends' positions, as well as free computers, at-a-glance without having to physically search through the building. In addition to providing a good overview, each name on the screen has a pull-down menu with access to that user's homepage and the corresponding entry in the online photo catalog. It also provides messaging services: standard email can be sent, as well as short message that will instantly pop up on the recipient's screen. All this can be done with other systems, but WEBWHO provides a convenient way of doing so, with minimum interaction overhead.

Experiences and discussion

Some 500 students share the 94 workstations in the lab, and have had access to WEBWHO since November 1997. Even though WEBWHO has never been advertised, the students use it extensively. Those who found it useful recommended it to their friends, in a peer-to-peer fashion. Access logs show that the WEBWHO page has had about 100-200 hits daily since it was started, with peaks of over 400 hits per day during weeks before exams. The logs also show that many students access it from home, via the school's modem pool. The number of short messages being sent per day vary from about 20 to over 150.

Interviewed students explain that they perceive WEBWHO as an ad-hoc awareness tool that complements ICQ (ICQ 1999). ICQ, which is used by most students, is a program that supports online awareness, messaging and chat within a specified group of users. Students tend to use WEBWHO mainly to see who is around, sometimes followed by spontaneous messages. This action is similar to taking a break from work, and going for a walkabout in the building without any specific intention. It is like "seeing through the walls". WEBWHO is also used within dispersed groups of students working on a common task. They use WEBWHO to locate each other and to coordinate their activities with short messages. For example, students who are late to a meeting (e.g., overslept) often use WEBWHO to inform the others, rather than using a phone or email. Messages typically have a coordinating nature: they are used to arrange physical meetings (e.g., lunch, breaks for smoking etc.) and for short questions and answers. WEBWHO seems to be socially acceptable as well: no interviewees complained about privacy issues, perhaps because there is an option to block incoming messages, and the system is based on log data that is already there anyway. The system is only partly accessible from outside the university network domain.

To conclude, most awareness tools are centered on a pre-specified group of people. WEBWHO supports awareness of one's friends, but the students come and go, and the common theme for them is the resources they allocate and share: rooms and workstations. Finding a free workstation can be just as important as finding a friend, and it requires very little effort when using the WEBWHO system.

WebWho can be accessed at <http://w3.informatics.gu.se/~s94pelj/wh.cgi>

References

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