

PILOT STUDY INTO THE USE AND USEFULNESS OF INSTANT MESSAGING WITHIN AN EDUCATIONAL CONTEXT

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Instant Messaging (IM) is a way of sending small, simple messages to other users who are currently online in "real time". It is a rapidly growing medium by which many students are choosing to communicate with each other. There is a huge opportunity for lecturers to communicate with students on an individual and/or group basis via IM software which is currently being overlooked. In particular, IM software offers advantages over other forms of communicating with students. This study will report back on students' general use and perceptions of IM, how this can be applied to collaborative learning and support, and reflections on how IM could impact on lecturers' time.

INSTANT MESSAGING

Instant messaging enables users to have instant real-time communication with friends, family and colleagues via the Internet. These private text-based "chats" can be between two or more participants who are simultaneously online. They are typically informal; include typographical, spelling and grammatical errors along with numerous abbreviations. IM messages are normally short and sent line-by-line, making the conversation more like a telephone conversation than exchanging letters. IM differs from email, which may sit in a person's inbox for considerable time before being downloaded and read; the moment a person sends an instant message it is seen in a window on the other person's screen.

Users create a list of people they wish to communicate with and can see information about their availability such as whether or not they are currently logged on and available to receive instant messages. If a contact is online, further information about their current activity is available, such as "busy", "away", "out to lunch" or custom descriptions.

In addition to sending and receiving text-based messages, users may also transfer files, have voice and or video conversations, send text messages to cell phones, share a whiteboard or other applications and play games. Conversations can also be archived.

The first general instant messenger program was ICQ, developed by Mirabilis, and introduced in November 1996. There are a number of popular and free IM services, such as MSN Messenger, Yahoo! Messenger and AIM. Unfortunately these systems are currently not directly compatible but third party systems such as Trillian enable users to interconnect.

CURRENT USAGE AND TRENDS

In 2003 there were an estimated 600 million active IM accounts in the world with users sending 582 billion messages per day. Market research firm The Radicati Group (2003) predicts this will soar to 1.4 billion accounts and 1,380 billion messages per day by 2007. Gartner Research (2001) foresees that, at its current rate, IM will surpass email usage by the end of 2005.

A report from Pew Internet & American Life (2004) entitled 'How Americans use instant messaging' reveals that more than four in ten online Americans instant message and, on a typical day, 29% of these send instant messages. One in five IM users send instant messages at work.

More marked is the use of IM by younger generations; Pew Internet (2001) found that 74% of teenagers have used IM, 35% of these used it every day and 45% of those who have used IM used it each time they went online. College Internet users are heavier users of instant messaging than those in the overall online population. While about half of all Internet users have sent instant messages, nearly three quarters of college Internet users have done so, and college Internet users are twice as likely to use instant messaging on any given day compared to the

average Internet user (Pew Internet, 2002). In New Zealand, approximately 200,000 people log onto popular IM service, MSN Messenger, per day and two thirds of these users are under the age of thirty (Nielsen//NetRatings, 2004).

Young people use IM in numerous and diverse ways from social interaction to work-based collaboration. They are often multi-tasking while instant messaging and frequently engage in multiple simultaneous conversations. One in five online teens said that IM is their primary way of communicating with their friends (Pew Internet, 2001). Hwang (2004) found that social interaction, medium appeal, interpersonal utility, entertainment, and information seeking were the primary motivations for college students' use of IM.

INSTANT MESSAGING AND EDUCATION

"If students come to us with PDAs and cell phones... and spend hours using Instant Messenger, we should use what they know as the starting place for their educational experience" (Smith, 2002).

Young people are spending hours using and relying on instant messaging to chat, coordinate and discuss with their peers. They expect constant connectivity with anyone with whom they need to be in touch with, no matter where they are – and there is little tolerance for delays. It is important to find ways of exploiting for educational purposes emerging forms of communication that students are adopting in large numbers.

Instant messaging has incredible potential in education. IM encourages active learning and prompt feedback. The technology offers possibilities for students to collaborate together on team projects; have discussions about course material, study together and quiz each other in pairs or groups. Tutors could run one-to-many or one-on-one tutorials, virtual (online) office hours, provide computer support and even mentoring. Additionally, students and staff could make use of the voice, video and whiteboard features to aid their conversations and explanations. For statistics education, where many graphics and symbols are used, there are severe limitations in text-based email or forum board explanations which can be overcome with a shared whiteboard space.

Truman State University (2001) offers instant messaging services for students with admission queries and for prospective students wishing to contact current students for their perspectives. The service aims to provide faster answers and savings on long-distance phone calls. Southern Illinois University (2001) installed an instant messaging system to connect students with librarians. "The reason we thought it would be a good idea is that people do so much work on computers, we decided why not let them ask questions online. It's really convenient for students. With email it takes a couple of days to get a reply; with this service students get a message instantly", says librarian Jody Fagan. The system is also said to be saving the library money.

Grinter and Palen (2002) studied sixteen IM users and found that all student participants reported using IM for some form of homework support. "The growing shift from using IM as primarily a social medium to one that incorporates discussion of work activities culminated at college age for our participants." IM was reported to have been used to discuss course readings, practicing foreign languages, tutoring and coordinating face-to-face meetings to work on group assignments.

At-work IM users report that instant messaging improves their productivity, forty percent of these feel that IM has improved teamwork and half believe IM saves them "some" to "a lot" of time (Pew Internet, 2002). An ethnographic study (Nardi, Whittaker & Bradner, 2000) of IM in the workplace found that IM is used in the workplace for informal communication for quick questions and clarifications about ongoing work tasks, coordination and scheduling and organising physical meetings. "Instant messaging has tremendous potential across the enterprise, from improving employee communication and collaboration to providing better customer service at lower costs," says Genelle Hung, senior analyst for research firm The Radicati Group (2004).

IM would enable another way for students to have increased timely and remote contact with their lectures, tutors and classmates. The informality of IM provides a potentially unthreatening environment for students to ask for help. "Being accessible on computer after hours allows me to be a part of their world and provide each student with meaningful, targeted support," says Michele Barr (2003), a Texan high school teacher who offers tutoring via instant

messenger. Pew Internet research (2001) found that teens are more comfortable talking about certain topics online as they have time to think through what they write rather than feeling awkward in face-to-face encounters. Jeffrey Young (2002) feels that online support has made him a better instructor, "when you don't have the face-to-face, you're forced to really focus on what you're saying to the student or what you're typing to the student."

By looking at their contact list, students have a general awareness of their tutor's and classmates' availability. This presence awareness provides a sense of connectedness or shared space with others and offers a sense of support and comfort that there's someone there to help or talk to if required. This has great potential to foster dialogue in the distance learning environment and in large classes where students rarely get to know others well.

Instant messages can be more efficient than email when a simple, rapid clarification or answer is required. The sender has the immediacy of knowing that the recipient has received the message via a pop-up alert on their screen. They help reduce the inbox clutter and time spent constructing emails which are more formal. IM conversations can be intermittent and held over long periods of time and can include delays while one party is busy. As such, tutors and students may multi-task without overt interruption. If one becomes busy or unavailable, this may quickly be made known to the user's contacts without further explanation required.

PILOT STUDY

Millions of students around the world are using instant messaging, primarily as a social tool but increasingly are discussing work. There have been many calls for research to be conducted into using IM as a learning tool, however very little has been done (Farmer, 2003; Hwang, 2004). We cannot find any studies into the use of IM in New Zealand and only a handful of very small studies internationally. Cohn (2002) said that it is only a matter of time until IM becomes "an obligatory communication modality for academic service providers". By actively exploring instant messaging now, universities will have the chance to incorporate it in a meaningful and efficient way into their mission of teaching, learning and research.

A pilot project will be run in two first semester classes at the University of Auckland to investigate the use of instant messaging within an educational context. The study is intended to help identify and maximize opportunities for innovative, collaborative and interdisciplinary methods of teaching and learning. It should also provide increased support for e-learning as part of academic programmes delivered primarily as on-campus programmes. Providing learning support via IM recognizes the high diversity of students in the University.

Approximately 600 students from two large first year statistics courses will be invited to complete pre and post surveys which focus on demographics, current usage, attitudes and preferences towards the Internet and, in particular, instant messaging. Students will be able to contact a tutor via instant messenger to get help with their assignments online during the day and in the evenings. All interactions will be recorded and students will be reminded of this each time they participate in the virtual office hours. Observations and reflections from tutors will be collected as well as focus group discussions with those who made frequent use of the instant messaging service.

Farmer (2003) lists the possible disadvantages of instant messaging as being security risks, privacy concerns, the potential for distraction, the lack of administration and the perception that it is as a time waster. All forms of online communication such as email and forums provide the possibility of privacy concerns and anonymous abuse or inappropriate comments being made. If there are online group conversations, students will first be asked for permission to allow their contact details to be seen by others before being joined to the conversation. Tutors will oversee the instant messaging interactions and will be able to intervene if there are improper comments being made. All instant message interactions from the pilot study will be recorded and any problems of this nature will be included in the final report. Limitations such as accessibility to instant messaging software at home, usability of the software to carry out conversations about statistics and misunderstandings that can arise in the IM medium will be investigated.

While IM can save time by reducing emails and one can multi-task while using IM, the study will also look at different strategies by which a lecturer's time could be managed, if it would significantly add to or displace other workload. Farmer (2003) warns that IM encourages

the growing expectation of ubiquitous instructor access and could result in added workload. The pilot study will also investigate whether or not there is a critical mass of interested IM users for long term and widespread implementation of virtual office hours and if there is a need for basic training on how to use the software.

Initial findings from this pilot study will be completed by the time of the satellite meeting and results will be presented at the conference.

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