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Technical Evaluations Report

1. Online Learners' Interest in Collaborative Tools

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Abstract

An online survey was conducted (June 2001) of attitudes of distance education (DE) learners/teachers to online collaborative tools. The respondents in the study were 135 graduate students and faculty members of Athabasca University's Centre for Distance Education (CDE). They demonstrated particular interest in tools that offer the following features: file sharing, automatic synchronisation of documentation for the group, audio conferencing, text chat, and privacy. They also expressed useful opinions on topics including their willingness to upgrade their computer systems, and to pay to avoid online product advertising. These results will be useful in the selection of appropriate new methods for online instruction.

The Survey

The Internet has generated an expectation that we can work collaboratively without having to meet. But has that expectation been fulfilled? For students and professors at Athabasca University (AU), it is a question that affects the daily ability to work together effectively. Most of our work is still accomplished through asynchronous messaging – mainly email and text-based discussion boards (computer-mediated conferencing). Some courses – e.g., those that emphasise technology issues – also feature audio-conferencing methods.

To determine the impact of its current online communication methods among its teachers and students, members of the CDE's graduate programme collected survey data about:

- a. Computer systems used by its students and faculty members, to determine possible limits on recommended software.
- b. Software and facilities in current use, and the users' levels of confidence with them, to determine potential 'learning curves' requiring assistance.
- c. Obstacles to the continued use of these tools, (e.g., technical problems, and the irritation of pop-up ads.
- d. Online communication facilities that users would find useful in group work.

The survey required its respondents to give personal identification for verification purposes.

The Sample

A request for voluntary responses to the online survey was sent to the entire CDE membership (approximately 400 students and faculty members). The survey utilised an automatic email (mailto:) response mechanism. An initial sample of 158 responses was received. This included the responses of:

- a. Individuals who had submitted their forms more than once
- b. Submissions containing no data

The deletion of these responses reduced the sample to 123 graduate students and 12 faculty members. As there was no appreciable difference between the responses of these two groups, they were combined for a total sample of 135 students and faculty.

Results

1. **Computer configurations:** The data indicated that a wide variety of systems is in use, including several generations of PC and Mac processors. The PC configurations ranged from Pentium III-class CPU's ($n = 51$), to 486-level computers ($n = 4$). The memory capacity of the PCs also varied, although none was less than 32 MB. PC operating systems included the full range from *Windows 95* through *Windows ME*, and one Unix system.
2. **Internet connections:** The users' Internet connections also varied widely, with the most common dial-up speed being 56.6 kbps ($n = 45$), and the slowest being 28.8kbps or less ($n = 24$).
3. **Willingness to upgrade:** The responses ranged quite evenly among answers that included "willingness to spend up to \$200" to "no need." Only 10 persons stated that they "cannot" or "will not" make changes to their computer system.
4. **Interest and confidence:** Of the 135 respondents, 121 indicated confidence in downloading and installing new software (see Table 1). The greatest levels of interest were expressed in the use of the email and discussion boards ($n > 100$ in both cases). In most of the other response categories, the majority of respondents indicated a lack of confidence in use of new methods: e.g., in the use of audio-conferencing methods ($n = 58$). It should be noted that 18 respondents expressed a lack of confidence in the use of traditional online discussion methods.

5. **Interest in new methods:** The need for online tools permitting file-sharing and private discussion—i.e., invisible to other participants and the professor) received substantial support ($n = 83$ and $n = 87$, respectively). Three other methods received support from over half of the sample: the “auto-synchronisation” of documentation for those who miss an online class session ($n = 77$); audio-conferencing ($n = 70$); and synchronous text chat ($n = 69$).

Table 1. Number of respondents who expressed interest and confidence in the use of Online Collaboration Methods

Collaborative method	Interest	Confidence
Email	103	133
Discussion boards	101	117
File-sharing	83	71
Audio-conferencing	70	58
Text chat	69	77
Applications sharing	48	45
Whiteboards	48	33
Listservs	44	64
Shared Web browsing	43	30
Video-conferencing	36	36
Download & installation	n. a.	121
Private discussions	87	n. a.
Auto-synchronisation	77	n. a.
Blocking intruders	62	n. a.

6. **Pop-up ads and junk mail:** The respondents were asked whether, in the interests of using inexpensive software, they would be willing to pay to avoid these annoyances. The largest group ($n = 79$) indicated that they would be content to put up with product advertising; 75 of them responded that they would not use software if it put them on junk mail lists, while 54 stated that they would put up with this. Forty-six persons stated that they would pay up to \$2.00 per month to avoid advertising or junk mail intrusions; 35 persons indicated that they would not use software that generated these problems; 11 respondents stated that they would be willing to pay up to \$10 per month to avoid them.
7. **Help desk support:** The survey asked whether respondents would welcome technical support in the use of collaborative tools from the CDE. Attitudes to this were broadly divided, with the highest proportion of the sample ($n = 49$) favouring online or telephone assistance with technical and how-to-use problems.

Conclusions

The results indicate that the majority of the sample is in favour of using both synchronous and asynchronous communication facilities, with an unsurprising preference for free or inexpensive software, and a reasonable though not universal tolerance for product advertising. The desirable features of an online communication tool include (in descending order):

1. Privacy of use
2. File-sharing
3. Synchronisation and storage of session documentation
4. Audio-conferencing
5. Synchronous text chat

It is not surprising to see firm support for familiar email and discussion board methods of online interaction. On the other hand, interest in audio-conferencing techniques is high, though confidence in their use is at present only moderate.

It appears that students and faculty members alike are willing to incur moderate expense to upgrade their computers in order to utilise Internet communication. However, the decision to request this of them is not taken lightly by the CDE, in view of Athabasca University's 'Open University' responsibility not to place economic pressures upon its students.

The overall conclusion of the study was that AU's Centre for Distance Education should seek appropriate methods for providing its students and teachers with the collaborative tools that their responses had requested. The search for appropriate will be discussed in the next report in this series.

N.B. Owing to the speed with which Web addresses become outdated, online references are not cited in these summary reports. They are available, together with updates to the current report, at the Athabasca University software evaluation site: cde.athabascau.ca/softeval/. Italicised product names in this report can be assumed to be registered trademarks.

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