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ABSTRACT

The Open University pioneered the first use of computer conferencing in mass distance education in 1988, when it was used to provide tutorial support to more than 1,300 students in the United Kingdom via electronic mail and conference messages. A study of the use of the system in the first year revealed that: (1) only one-third of the students logged on extensively; (2) the primary values of the medium were increased communication, a reduced sense of isolation, and direct feedback from tutors to the central staff and to students; and (3) while most communications were banal in content, the practical-help conference was successful. Changes were made in the course after the first year, the success of the changes was evaluated, and it was concluded that the use of teleconferencing as a tutorial rather than as a course delivery medium was beginning to exploit its educational potential. Areas of improvement in the second year were a decrease in the number of misplaced, irrelevant, or inappropriate messages; an increase in the number of students keeping up-to-date with messages; efficient management of queries, requests, and course news; and an increase in the amount of interactive discussion of course issues. Ongoing problems with the use of the computer conferencing medium include student passivity, technological limitations, and the necessity for teaching practical work at a distance. (DB)

Conferencing for Mass Distance Education

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BACKGROUND

The Open University (OU) pioneered the first use of computer conferencing in mass distance education on its course, *Introduction to Information Technology*, in 1988. This application of the medium was as tutorial support to the more than 1300 students spread all over the U.K. Each student was equipped with an IBM compatible computer and was loaned a modem by the University. The course required students to log on and send email and conference messages, and to work through a series of exercises designed to teach them the rudiments of the conferencing system CoSy. For the remaining six months of the course, the use of CoSy was largely optional, although tutors were expected to moderate discussions about course material, and to offer support and answer student queries.

The evaluation of this first year of the course has been well documented (Thomas, 1989; Rumble, 1989; Mason, 1989a and b). On the basis of this evaluation, and extensive feedback from students and tutors, a number of changes were made in the 1989 presentation of the course. The purpose of this paper is to look at these changes, to evaluate their success and to draw conclusions about the value of this medium for mass distance education. As the expertise in using conferencing for tutorial support develops at the OU, it is appropriate to document the refinements to the application, and make the results available to the many institutions which are also experimenting with computer conferencing.

Findings From 1988

With virtually no precedents to follow in the first year, the course team decided to set up several conferences open to all students and tutors -- for discussing general course issues, for getting help with practical work, for socializing and for passing on important news -- and 65 closed conferences for each of the tutors and their 20 to 25 students. The assumption was that the main discussion and tutoring would be carried out in these 'local' closed conferences. However, as use of the system was largely optional, and most students found the main theoretical units of the course in addition to the other three software packages very demanding of their study time, only the most enthusiastic and dedicated CoSy-philes logged on frequently, and this proved too small a critical mass to sustain discussion in the tutor group conferences. The 200 or so regular users gravitated to the 'national' open conferences, and discussion, practical help and socializing took place at this level. These topics became very over-loaded with messages and the infrequent users found it very difficult to participate or find their way around. The tutor group conferences were used largely for information exchange -- about meetings, assignments and practical details, and the tutor was usually the main contributor. The use of CoSy in the first year can, therefore, be summarized as follows:

- Students made very unequal use of the medium -- about a third logged on less than five times; another third used it more frequently but usually only to read other participants' comments, and the final third made extensive and often enthusiastic interactive use of the system.

- The primary value of the medium was the opportunity it provided for increased communication: students found it helped overcome the isolation of distance learning and made them feel part of an educational community; tutors were able to give direct feedback to the central staff and to take part in decisions about course presentation; the course team were for the first time in contact with the 'consumers' of their course, expanding on course themes, answering queries and coping directly with criticism and praise from students.

- The nature of the communication was often disappointingly banal, but the practical-help conference was very successful, the advice and feedback on assignments given by tutors and the course team was appreciated by students, and there were many discussions about course issues which extended or broadened the course perspective.

Changes in 1989

The course team in consultation with tutors and students, sought to resolve many of the problems which arose in the first year. The structure and educational objectives of the course, the financial constraints of the University and the technical limitations of the medium formed the boundaries within which changes could be made.

The chief drawback to this particular application of computer conferencing was that this very powerful medium had been relegated to a very minor part in the course -- about 10 hours in a total of 400 study hours. However, as the University had not funded local call lines for all users, the cost of telephone charges to students was a major inhibiting factor in increasing its role on the course. Students living a long distance from the nearest dial-up node would be unfairly disadvantaged if assignments had to be submitted online, if updating material, stop press announcements, or additional reading material were to be accessible only online, or if assignments involved significant online discussion. These kinds of changes to motivate students to use the system had to be rejected. Nevertheless, some encouragement was offered in the second year -- 10% of the marks on one assignment were given for conference and mail entries, and assignments based on the student's discussion of chosen messages will be used in the third year. These changes are justified as assuring a minimum level of competency in using the medium.

After the experience of the first year, there was some pressure on the course team to reduce the workload on the 65 course tutors, who were trying to keep up with all the messages on the system as well as learning the art of conducting online tutorials. Because the conferences open to all the students contained far too many messages, and the conferences open only to the tutor and 25 students contained far too little discussion, a middle tier was introduced in the second year: these were called regional conferences. The large open conferences were made optional; the small tutor group conferences were relegated to discussing local matters and assignments, and six regional conferences were introduced as the main forum for discussing course issues. Tutors were expected to take turns leading discussion, raising

questions, developing the discussion, and summarizing and interweaving comments. One 'super-tutor' was hired to oversee each of the six regional conferences, organize the seven other tutors, moderate the conference and add continuity to the whole process. It was hoped that the 200 or so students in each regional conference would provide the right critical mass for effective discussion.

A third area of change was in the management of CoSy. About half a dozen course team members made significant contributions to CoSy in the first year, and indeed the accessibility of central staff both to students and to tutors was one of the positive features of the application. Nevertheless, the inevitable technical problems with using communications, and the equally inevitable problems with new OU courses, as well as the general inexperience of everyone in organizing a conferencing system for very large numbers of students, resulted in a very chaotic management of this new medium in the first year. The ability of students to make queries, to criticize not only the course content but its delivery and presentation, exposed the course team and many of its practices to the 'heat of the fire' in a way which was ultimately very valuable, but extremely disconcerting at the time! This mismanagement had led to vital messages left unanswered, important messages in the wrong conferences and even non-use of the medium for sending critical information to students and tutors during the two postal strikes which occurred during the first year of the course. The second year resolved many of these teething problems with the appointment as the main conference manager of one member of the central staff, who tutored the course in the first year and therefore knew the course well, and who attended course team meetings and therefore was abreast of current changes and developments. Furthermore, a logical set of topics for technical matters was instituted and queries were handled promptly by the Academic Computing Service of the University. All students were automatically joined to the read-only news conference where important messages from the course team were seen with the first carriage return. Finally, hitches and bugs in the software, identified by the 'guinea pigs' in the first year were rectified for the second, and significant improvements were made to the 'front end' developed by the course team to provide automatic logon, offline editing and optional online menus.

Evaluation of the Second Year

Interviews with students and tutors, messages on CoSy and computer-generated user statistics reveal that many of the same advantages from the first year of using conferencing remain valid for the second year: the social value of the medium, the increased access to help, the convenience of an asynchronous communication for distance learners and the sense of being part of a university community. The following extracts from interviews and conference messages give evidence of these values:

> I enjoy both modes of communication (face-to-face and conferencing), but thanks to the dynamic shift patterns operated by my employers, this year I have a lot to thank conferencing for. I cannot attend any tutorials and consequently I have managed to recoup some of the benefits of discussing issues with my peers through CoSy.

> There was more camaraderie within the tutor group because of CoSy. Getting marks and comments on assignments from my tutor online was a real advantage, and other students were often helpful as well.

In my 8 years with the OU the only contact I have ever had with tutors or other students has been through the 4 tutorials and one summer school I have attended. Finding out what other students thought about the course and being able to contact my tutor has been a real eye-opener this year. The most significant benefit of CoSy for me has been reading other students' ideas which are quite different from my own. I have only taken 'correct answer' maths and technology courses before. CoSy was a real help with the social science perspective of this course.

These kinds of comments were also typical of the feedback from students in the first year (Mason, 1989a and b).

Computer-generated statistics of logon times and input to conferences show a number of differences from the first year and yet a basic similarity of use and participation.

Time Online	1988 students	1989 students
none	115	138
up to 1 hr.	72	69
1-2 hrs.	94	88
2-3 hrs.	124	99
3-5 hrs.	213	215
5-10 hrs.	380	410
10-20 hrs.	259	171
20-30 hrs.	59	35
30-40 hrs.	24	7
40-50 hrs.	5	3
50-100 hrs.	12	3
100-200 hrs.	2	1
TOTAL	1364	1239

Table I

These statistics indicate that there was a greater bunching in 1989 around the specified 10 hour minimum allocated to online activities and hence less variation in usage from 1988. Nevertheless, the range of logon time for both years shows no dramatic differences. Likewise, the level of contribution remained almost identical to that of the first year -- about a third of students inputting one or more messages into conferences. (Unfortunately, no statistics are available on the use of email.)

Despite these similarities, four areas of improvement in the nature and quality of conferencing were apparent in the second year:

- The regional conferences contained very few misplaced, irrelevant or inappropriate messages, which had so marred the conferences in the first year and irritated or put off many students. This improvement may have been due to the re-written manual and explanatory material, or even to a Sheldrakian principle of learning from previous students' efforts!

- Data from the regional conferences shows a very high level of lurking -- over 80% of students keeping up-to-date with messages. References to conference discussions were quoted in relevant assignments and many logons were made in the month before the exam, as students turned to conference messages for hints, summary discussion or last minute advice.

- The management of queries, requests, and course team news was handled with efficiency and speed, capitalizing on the power of the medium for communicating with large numbers of dispersed students. The conference on practical issues of the course with topics on the software packages, the dial-up network, printing, and CoSy, consisted primarily of queries which were invariably answered within 24 hours either by two of the Academic Computing staff, or by other students. The conferencing manager handled several hundred email messages usually by immediate response but occasionally by re-directing to the appropriate expert.

- The amount of interactive discussion of course issues increased significantly in the conferences generally and quite dramatically in the case of one regional conference. Topical issues and relevant newspaper articles were discussed as well as personal experiences with Information Technology in the home and at work. On a number of occasions, the conference transcripts show real interactive dialogue, with students commenting on previous arguments, refining their own perspective, interweaving tangential comments from other students and debating conflicting points of view. The emergence of this kind of conferencing, which capitalizes on the text-based, a synchronous aspect of the medium, is the strongest evidence of its value for learning at a distance

In these areas the refinements made to the use of conferencing have enhanced the value of the medium to students and staff. Within the confines of its minor role on this course, and as a tutorial rather than a course delivery medium, this application is beginning to exploit the educational potential of computer conferencing.

Continuing Difficulties

There are three ways in which the further exploitation of the medium, particularly in mass distance education, is continually hampered: the alleged passivity of students, the limitations of the medium in its present stage of development, and the necessity of teaching practical work 'at a distance'.

Passivity of Students

Computer conferencing by its very nature demands greater activity and initiative from its users than other educational media such as audio, video or even print. The extent to which students retain a passive view of learning, has obvious repercussions for the success of the conferencing medium. Some OU tutors have felt that their students' lack of participation reflects their expectation that the course should be packaged for them; others feel that, nevertheless, it is not appropriate to coerce adult students to participate actively; some think that the medium will, in time, produce a more active concept of learning. Students themselves, are not unaware of this issue, as the following extracts from CoSy messages show:

> I feel that, although you can pick up little snippets of useful info and views, there is not a great amount of course-related info that you haven't already gained from the printed units. Possibly we are all at fault for not asking enough questions or putting enough views of our own on.
>
> I log on to read messages, get tips on assignments and course news, but I have not contributed to discussions. This is because I am used to friendlier/quicker communication products using the Macintosh; I am pushed to get through the block reading and I too don't question the course material enough.
>
> The idea that shy students will fire off salvos of assertive and erudite interpolations from the safety of their CoSy trenches seems to have no foundation in what appears in messages so far. I suspect that students' attitude to contributing is determined at a much deeper level than teachers are aware of.
>
> There is a culture gap between OU students and the ideal CoSy user. CoSy probably works best for those who are willing to participate in the structuring, presentation and content of the academic material on the system. However, the 'typical' OU student is more used to the idea of passive learning with material neatly packaged and presented without any effort from the student (hence the large numbers browsing on CoSy).

However, telephone interviews with students in interviews revealed quite different views about learning and conferencing:

> The messages were too wishy-washy -- they were just bull sessions, no information.
>
> I browsed through messages once, but people were just talking for the sake of it. I guess I started with the idea that it would be awful, as I never use any of the other media in OU courses. I just want the main facts.
>
> There were no right answers in the messages I read, so I stopped using it.

Efforts to increase the participation rate in online discussions are clearly working against entrenched views of learning and understanding. Expecting students to suddenly become active and interactive learners with the availability of a new medium would be naive and unreasonable. The de-packaging of learning at a distance will need to be a gradual process.

Limitations of the Medium

As in the first year, students continue to complain about aspect of conferencing which limit its effectiveness. Technical difficulties such as failed connections, line noise, incompatibility of software are well known detractions. The linear nature of conference messages, the difficulty of browsing and getting an overview of the discussion are all features of the medium in its present stage of development, which inhibit users. Furthermore, the lack of spontaneity in reading and preparing messages offline, in order to reduce costs, continues to be a serious deterrent to many students.

> I log on every week and use the record facility to read the information later. I have to scan through the messages as I'm recording to be a little selective of the material downloaded. I then print out (unless it did not record for one of the many reasons it finds to get a sulk over!). By this time it is usually too late to read all but the most interesting entries properly, so they are filed away for later digesting. Many have not seen the light of day again due to other more important reading in the units... Replying to any of the messages would take even longer.
>
> Many conferences were full of unrelated comments. I tried to follow the flow but got disheartened and gave up. It is so linear I couldn't make sense of the discussion in the short time I had available.
>
> In a [face-to-face] forum where a few people have a common topic of interest it is enlightening to sit and listen, chipping in your views if they are thought out quickly enough, to hear different views on things and coming to understand and tolerate or concede that what you said does not conform to other ideas that you hold dear. CoSy is a distant second best for such a forum. I know it is better than no debate at all but it is so slow to input ideas and so much slower to get a reaction that many ideas are never thrown into the arena.
>
> Coming offline to compose a message is so time consuming, and if I wait til the next day to upload it, it doesn't seem appropriate anymore.

Fortunately, many of these complaints will be outdated with newer conferencing systems and 'front ends' which facilitate offline working and allow the user to customize the conferences, tailoring them to individual priorities.

Teaching Practical Work at a Distance

The OU can claim a very high success rate at teaching large numbers of students the rudiments of logging on and answering mail without the advantage of a hands-on tutorial. Three elements contributed to this success: the development of a 'front-end' to CoSy with an optional menbar, which even the most experienced students found very useful; the use of an audio cassette to talk students through the first few logons, and a printed guide with detailed exercises for new users and simple lists for experienced users.

Nevertheless, turning large numbers of novice users into masters of the medium without the benefit of face-to-face contact is a difficult task. To a large extent the nature of the

application -- for tutorial support and optional after the first assignment -- does not lend itself to developing efficient and effective users. Some students -- about one third it would seem -- will learn these skills and become enthusiastic, interactive users. However, many students still call for face-to-face contact either to get over the initial learning curve, or to establish a traditional relationship with the other users. For these students, contributing their own views in a conference message is like talking to people without being introduced.

The following vignette of an OU student derived from telephone interviews, individualizes and grounds in practical reality, both the advantages and disadvantages of computer conferencing in distance education.

> The student lives on a very remote island in the Shetlands and has never attended tutorials. She chose the course because she thought that computer conferencing would be a valuable tool for overcoming the disadvantage of isolation. She had no experience of computers and unfortunately the rented hardware arrived well after the course had started. With each of the four software packages, she had tremendous difficulties trying to distinguish her mistakes from connection problems or technical failures. She couldn't differentiate major misunderstandings from silly typing errors. The OU's help desk, which she rang when stuck, was very friendly, but often she couldn't understand their answers and was too shy to keep bothering them. Her vision of computer conferencing as a continuous summer school with lots of friends to help and chat to, seemed a long way off, and she desperately wanted someone in person to help her over the basics. She was about to give up the course when her tutor put her in touch with another student on a nearby island taking an OU computer course. He came over and gave her the help she needed to continue with the course. She began to go online very regularly and set up a conversation with two other islanders. She contributed to her local tutor group conference, where she felt supported by her tutor, but confined herself to reading the regional conference, as she felt intimidated by the coherence and expertise of the other contributions. She began to enjoy logging on, adding a few short, spontaneous messages to the national conferences and emailing a few electronic friends. Through the conversations with the islanders and the practical help conference, she was able to get answers to most of her computing difficulties with the course. By the end of the course she felt tremendous pride in having gained a certain competence with computing, and was very sorry to have to return the modem. She felt that in another year she could really start to take advantage of it. Despite this, her overall reaction to computer conferencing was one of disappointment -- it hadn't filled her expectation of a social community where friends were easy to meet and communication was uninhibited.

This student was fortunate not to fall through the distance teaching gap -- she received the face-to-face contact she needed to carry on herself. Doubtless there are some who abandon the course, or avoid the conferencing option, because the only teaching vehicle which would work for them is a knowledgeable person to take them through the basics, or a meeting with fellow participants to establish friendly relationships.

Conclusions

Computer conferencing suffers badly from the unrealistic expectations of its users and promoters. The motor car was only expected to be as good as the horse; computer conferencing is expected to provide the intellectual, social and information requirements of an entire university without one ever leaving the confines of one's own island. What are reasonable measures of success for a conferencing application? What can we reasonably expect students to gain from using conferencing? As a tutorial medium in mass distance education, can we really demand widespread use?

The OU application has shown that conferencing is a viable medium in tutoring large numbers of students at a distance; the refinements to its use and the growth in understanding of the medium have shown that conferencing can provide a valuable learning environment. The difficulties which still impede its use are a reminder that the medium is not yet exploited by the mass of students.

References

Mason, R. (1989a). An Evaluation of CoSy on an Open University Course. In: *Mindweave: Communication, Computers and Distance Education* (R. Mason and A.R. Kaye, eds.). Pergamon, Oxford.

Mason, R. (1989b). *A Case Study of the Use of Computer Conferencing at the Open University*. Unpublished PhD., The Open University.

Rumble, G. (1989). On-Line Costs: Interactivity at a Price. In: *Mindweave: Communication, Computers and Distance Education* (R. Mason and A.R. Kaye, eds.). Pergamon, Oxford.

Thomas, R. (1989). The Implications of Electronic Communication for the Open University. In: *Mindweave: Communication, Computers and Distance Education* (R. Mason and A.R. Kaye, eds.). Pergamon, Oxford.