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Computer Mediated Communication: A Study of Student Interaction with the Resources

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Abstract

This paper examines the student use of resources placed on the CMC system for them by the academics in a foundation Management unit of a Bachelor of Commerce degree at one of Australia's largest providers of off campus university education. The findings of this pilot study highlight that the students may not necessarily have the same appreciation of the value of the material that the academics perceive it to have. Also, it would appear that students are choosing to interact with the material at a sub-optimal rate, that in itself may be hampering their own learning experiences.

1. Introduction

When we read of 'virtual organisations' and 'electronic commerce' being the way of the future, it is not surprising to see organisations embracing technology with a fervour. They do this not just in an attempt to obtain a competitive advantage, but in many cases, just to stay competitive. The technological imperative that has driven many business organisations is no less evident in universities, particularly those engaged in distance education. As we live in a society in which knowledge is changing rapidly and the skills required by the individual are becoming more diverse, the traditional forms of distance education are no longer sufficient to meet the changing needs of today's students. No longer is there a single mass market for distance education. Increasingly there is a wider diversity of needs and smaller unique groups that require more individualised approaches to learning (Bates, 1995). Computer-mediated communication, (CMC), is one medium that can meet both the individualised needs of the student and the organisation's needs for flexible delivery.

This paper examines the student usage of on-line resources provided by one such tertiary CMC provider, in a unit that services in the vicinity of two thousand students per year, many of whom are new to the university sector.

2. The University

The university in this study is a major open and distance education university in Australia. It is dispersed geographically across 6 campuses in 3 cities in a mainland state. There are more than 31,000 students in the university proper with approximately 12,600 students classified as off
campus. Seventy-eight percent of the students come from within Australia and eleven percent of the students come from Asia and the Middle East. The university's entrepreneurial arm has 45,000 students across Australia, Europe and Asia as it caters to the educational needs of large organisations, professional associations, unions and government instrumentalities.

3. What is CMC?

CMC evolved as organisations saw the need to network with individuals both inside and outside of the organisation and as a means of developing efficiency, productivity and coordination (Harasim, 1994; Kaye and Harasim, 1989). With pressure mounting on universities in Australia to increase their productivity and to be more efficient, it is not surprising therefore that many universities have embraced this form of technology as a potential alternative, or adjunct medium, for distance education.

CMC is one of the fastest growing technologies in terms of teachers using it and students accessing it (Bates, 1995; Lane and Shelton, 2001; Scagnoli, 2001). From the students' perspective, the use of networking in this way has been shown to be educationally advantageous (Presno, 1991). All students can contribute what and when they want and the asynchronous nature of CMC liberates the instruction from the constraints of time and distance. Students can download information and read it off-line and then respond when it suits.

4. Objectives and Methodology

This study focuses on the nexus between the perception of the academics involved in the unit as to the value of certain educational materials provided, and student interaction with these materials. The objectives of the study were to:

- Quantify the number of students who looked at, downloaded/saved the material
- Identify any patterns of material usage
- Identify the frequency of material usage
- Identify if students have different learning styles

The methodology was simple, but time consuming. Logs of off campus student interaction were compared by the academics conducting the course for each of the communications that occurred with respect to each one of the learning materials uploaded to the conferencing area. The interest was in student interaction and engagement with the available resources. The unit was an introductory Management unit with 154 off campus students enrolled. It is a core unit in a Bachelor of Commerce degree and all students in the Faculty take this unit at first year level.

5. Discussion of Results

The following section of this paper presents and discusses the results of the study.

5.1 Student Numbers

Initially there were 154 students enrolled in the unit, but by the end of the semester only 103 (66.9%) remained active. By active, one means that they were eligible to present for the examination in this subject. A mandated requirement in studying with this university at
undergraduate level is that students must have the computer capacity to interact in all units of the course with the CMC initiatives of the university.

5.2 Lecture Note Outlines

Lecture note outlines were provided. In week one, 70 students downloaded the information, however by the final week only 36 students downloaded them. In the last week of the course, when revision notes were posted only a maximum of 46/103 (44.7%) of students actually read the message and a maximum of 38/103 (36.9%) downloaded the information. One can speculate that the students may not necessarily share the academics' enthusiasm for the provision of lecture notes. The 'popularity' of the material diminished as the semester progressed. The issue that needs to be addressed is: was this reduction in interest over the semester due to the lack of relevance of the lecture notes as perceived by students; or did the students have the information in other forms provided for within the course such as textbooks and/or study guides; or was it a feature of other, as yet undetermined factors.

5.3 Additional Resources provided for Students

Kaye and Hansim (1989) contend that conferencing areas are only empty rooms. They go on to suggest that what goes on in those rooms and what comes out of those rooms in many cases reflects the input that the teacher has put in to the development of the course. The success of CMC is dependent on the moderator and this form of tutoring is just as time consuming as other forms of tutoring. With this idea in mind, the academics designing this course placed on the website additional information, developed over many years of trial and error. Material that they believed would assist student performance in an academic arena.

A set of papers on academic writing skills was posted to the site and whilst 84/103 (81.6%) students opened the file only 34/103 (33.0%) actually downloaded it. Another set of papers on research skills was also posted to the site. The file was opened by 50/103 (48.5%) students and downloaded by 35/103 (34.0%) students. Once again, the expectations of student usage by the academics may not have matched activation by the student cohort.

Students appear to have a belief that they understand the basics of academic writing and research skills. It is a concern that their performance in these matters does not appear to match their own self-assessment. Historically, student errors, in the areas highlighted by the academic staff, are endemic amongst all cohorts doing this subject. The same errors occur from year to year. Hence, this information had been provided for perceived student benefit by academics who believed in its value to the students and the possible enhancement of the students' subsequent performance.

5.4 Assignment Material

The assignments were not compulsory and were subject to a ‘roll over policy’ that allowed the examination to be 100% of the assessment. Students were strenuously encouraged to do all pieces of assessment, but could opt to do only the examination.

The items provided for students in this area were again designed to enhance the students’ performance. The message related to Assignment 1, the case study, was read by a maximum of 46/103 (44.7%) of students and downloaded by a maximum of 44/103 (42.7%) of students. It is of interest that only 67 students submitted the assignment. Hence, a maximum of 44/67 (66.7%) downloaded the information that would directly assist them with this piece of assessment.
With Assignment 2, which was an essay, a maximum of 74/103 (71.8%) read the message, but only a maximum of 19/103 (18.4%) downloaded the material for future reference. For this piece of assessment 53 students submitted the work. Hence, only a maximum of 19/53 (35.8%) downloaded information that should have been of vital use to them.

The point that amazes one about this lack of interaction to download this information is that the essay example provided for students is a model answer to a previous question of similar ilk, for which the same template could have been used for the assignment that the students were to consider.

Students do not appear to be extremely concerned about assignments that have past. The solutions to the assignments were only downloaded by a maximum of 21/67 (31.4%) for Assignment 1 and a maximum of 28/53 (52.8%) for Assignment 2. As this unit is the foundation unit for a major in this area of study, the lessons learnt from the feedback in this unit are ones that can be brought in to play throughout one’s study of the major. Students do not seem to value, or even appear to be cognisant of this fact, or else for their own reasons they choose to ignore this information. This area needs further investigation to establish the reasons for responses that at first sight seem to suggest that students may be inadvertently short changing their future academic performance, by missing vital academic clues in the foundation unit, that could save them some ‘possible grief’ in subsequent units of the major.

5.5 Examination Material

For the academics administering this unit the lack of interaction with the examination material presents even more of a quandary, than the lack of interaction with the assignment material.

The examination in this unit was to some degree pre-seen. Ten days prior to the examination, the twelve essay questions that could appear on the examination were sent in the mail to all students. However, the examination multiple-choice questions were obviously not sent. These multiple-choice questions comprise 50% of the examination, yet only a maximum of 41/1011 (40.6%) actually downloaded the sample multiple-choice questions provided for them prior to the examination.

Why would nearly 60% of students appear to choose to ignore such information at one of the most critical points of their semester of study? Like many of the questions raised by this study, answers are not easily or readily forthcoming.

6. Conclusion

CMC has the potential to open our universities to the world and the prospect of that is exciting. For distance education students, CMC offers a medium that can eliminate some of the problems associated with learning from a distance. At the same time, it can offer some of the features usually only associated with face-to-face teaching. As we are swept into the twenty-first century on the wave of the technological imperative, it appears that those organizations with the infrastructure to support the technology and their people using it effectively, will achieve a

\[ n \text{ did equal 103 students who were eligible to sit the examination, but 2 students submitted special consideration forms that precluded them from sitting the examination, hence the } n \text{ is now 101.} \]
competitive edge. However, the learning provided for students in this medium must be seen by them to be worthy of engaging, because the use of technology by itself will not transform this method of delivery into an effective educational tool (Laurillard, 1993).

The research findings in this study show that the value of the experience that the academics in this unit believed that they were providing may not be perceived as such by the students. It would appear that there is a definite under-utilisation of the resources at hand by the students engaged in this unit of study, yet this unit provides numerous resources that are more prevalent in number than in most other units in the relevant major or even in the rest of the degree.

This lack of engagement by students is a concern and answers are difficult to suggest let alone confirm. There may well be a paradigm difference between an academic’s perception of the value of information and the perceived value of the same information by the student. Are we overloading the students with information in an attempt to enhance their learning: information between which they find it difficult to discriminate and therefore may just ignore? Are there gaps in our educative process for students about to engage with our CMC system? Do our students have different priorities to academics raised in earlier times and conditioned to the worth of constant improvement: i.e. are our students more mercenary than we may have been, in that they want to do the unit and exit it with minimal engagement? Many of the questions posed here are outside of the scope of this pilot study, but hopefully, more definitive answers will be forthcoming in subsequent investigations of this unit and method of study with future cohorts.

7. References


