

Teaching Banking and Finance Online: A Case Study

MILIND SATHYE

School of Business and Government, University of Canberra, Australia

Abstract: *The objective of this paper is to identify the challenges that online teaching and learning involves, with particular reference to the online teaching of banking and finance. A case study method has been used to investigate the challenges in online teaching of banking and finance. The study shows that while the content of the unit could be delivered online very efficiently; many operational problems could mar this mode from becoming an effective teaching and learning mode. The author taught the banking and finance course online at the University of Southern Queensland during semester 1 of 2001. The author designed this unit, prepared the course material, delivered it online and assessed the unit online. At that point of time and even today no University in Australia delivers this unit. Another important feature of this paper is the quick survey the author did about the use of WebCT by undergraduate finance students at University of Canberra and the comparison of his experience of using the online technology at USQ and the one at UC. The challenges faced and the way these were overcome could be of interest to those interested in teaching banking and finance online.*

Introduction

The Internet and its associated technologies are exerting an influence on the way we teach and learn like no other technology before it. The implementation of new information and communication technologies poses a significant challenge for higher education institutions and teaching professionals alike. This paper documents a case study of on-line teaching of banking and finance courses at an Australian University. How the concept of on-line teaching was initiated, how was it implemented and what were the outcomes are some of the aspects discussed in this paper. What were the pitfalls, what the lecturer could have done better and what the students could have done better are some of the incidental aspects discussed. The paper shows that on-line teaching of banking and finance courses is a great challenge but if adequate precautions are taken, effective teaching and learning online is possible.

What is online teaching?

There are three modes in which courses can be delivered. These are:

- face-to-face mode (the traditional way or f2f mode),
- distance mode, and
- on-line mode.

We are all familiar with the traditional face-to-face delivery of courses. It is the only mode that is practised by universities across the globe. It involves having a place of learning like a University campus where academics come to the classroom and deliver a lecture. The students and the lecturer are both physically present at the same time at the same venue. This mode facilitates interaction but imposes restrictions such as the availability of students and lecturer at the same time, same place and facilities like white or black board, marker pens, overhead projectors to show slides, and where power point presentations are to be made computer facilities to do that. The f-2-f mode restricted abilities of academic institutions to reach to students located at distance, who could not come to the campus for learning due to one reason or the other.

The distance mode tried to overcome the disadvantages of the f-2-f mode, in as much as the necessity to be physically present at the place of learning was no longer required. Students residing in far-flung areas were sent course material by post and could communicate by telephone or mail, with the lecturer for study assistance. Though the distance mode expanded the market it was still restrictive. For example, it could not cater to international education market efficiently because of the cost and time involved in sending material by mail and receiving assessment items from students, say assignment, by mail. Students located overseas could find it too hard to do a course during one semester under distance mode.

The online mode changed it all. Students residing any where in the world could log on to the Web provided they had access to a computer and ISP to provide Internet connection and study the course. Information about the course they wanted to choose, synopsis of the course, availability, fee structure, course material, submission of assessment items all could be done online. More importantly, it was very efficient and cost effective way of learning. All the resources required were at command and could be accessed with a click of the button. There was also a great cost saving. There was no need to leave your country and incur travel, stay and living cost and because printing and mailing costs were obviated, academic institutions could deliver courses at lesser costs. Because of these possible advantages it was thought that on-line courses are the future of Universities. For example, DEST (2002) report stated that 'virtual learning environments will be attractive as they will provide a more interactive experience and future education consumers will be more at ease with this type of technology'.

The paper is organised as follows. In section 2, a brief history of on-line teaching at the USQ has been provided, section 3 gives details of the courses on banking and finance taught by the author on-line, section 4 is about reflections of the author and section 5 summarises this case study.

USQ: A Dual Mode Triple Action University

The University of Southern Queensland is located in Toowoomba, which is situated about 130 kms to the south west of Brisbane (Capital of the state of Queensland in Australia). Toowoomba is a small town with a population of about 90,000 as per 2000 census. The author worked with the University of Southern Queensland for over 4 years as an academic in banking and finance. The University was basically a

distance education university, which later earned a University of the Year Award in the year 2001 for developing an e-University. As most students (nearly 2/3rd) of this University were learning in distance mode, almost all the courses were designed to be taught in both internal (day) and distance mode.

In distance mode, course material for the unit (the introductory book, study book and selected readings) were printed and dispatched to the external (distance mode) students by post. The learning support for distance education students was provided through flexible delivery tools like telephone tutorials, e-mails etc. However, given the cost of printing of course material, postage, telephones etc the University was 'searching for a new mode of delivery of courses. This mode needed to be cost effective, efficient and easy to use. Further, it was also necessary to ensure that the quality of teaching and learning is not diluted. The answer was provided by the on-line mode, that is, delivery of courses on-line using the Internet.

The on-line delivery of courses was initiated in the year 2000. For the purpose, the University entered into a commercial arrangement with NextEd (a web based education tools provider). The learning platform for course management system used by NextEd is BlackBoard. The NextEd offers similar functionality to the more popular WebCT.

'On-line' can be defined as an Internet based delivery mode. It enables learning from anywhere, any time. Thus people all over the world in many different situations can continue their education and enhance their professional skills. The USQ developed, *USQOnline* so as to provide access to all study material online. No printed study materials are produced for *USQOnline* studies. All the information that one needs to complete studies successfully is provided via the Internet. Course material includes power point slides of lectures material, other lecture material, specific online exercises, online quizzes with immediate feedback and past examination papers. Assessment items like assignments are to be submitted online. It also provides for online discussion groups. Sometimes such discussion platforms can also be shared with on-campus students and the same lecturer. The lecturer who teaches in on-campus mode, external print mode and external online mode is the same. This ensures that online students are no way disadvantaged. All USQ students are entitled for *USQConnect*, a facility that gives access to communication with other students and the lecturer via discussion groups.

The University offers accredited degrees, certificates or diplomas as well as courses for professional and credit development programmes online. These are available through five faculties-Arts, Business, Education, Engineering and Surveying and Sciences. A student can choose to do an entire program online or just a couple of courses. The majority of courses at *USQOnline* cost AUD9.50 each, some cost AUD850, and a few cost AUD1000. The costs are lower as compared to face-to-face mode where courses cost AUD 1200 on an average. Instructions to new comers to the website about what they can study and how they should enrol have been provided.

Literature Review

The literature on use of technologies like the www and others is rapidly expanding. The fundamentals of the Internet and the opportunities and challenges it offers to financial engineers has been well documented by Herbst (1996). Ray (1996) provided a description of financial resources available on the Internet. Pettijohn (1996) too provided extensive list of resources available on the Internet for finance people. This was followed by the paper of Grinder (1997) who discussed developments relating to the Internet and provided a list of resources available on the Internet for those working in the areas of finance. Smith (1996) reviewed the use of EDGAR and its applications for classroom use. Several other papers discussed the use of technology, in particular the Internet, in teaching of accounting and economics. Notable among these were those of Agarwal and Day (1998), Debreceeny, Smith and White (1996) and Manning (1996). However, the literature so far appears to have confined itself to providing a list of resources on the Web, barring Michelson and Smith (1999) who present a survey of web page use and applications of www technology in teaching finance. The use of technologies for teaching of banking and finance is noticeably lacking. In particular, in Australia, such a study has not been conducted so far. We propose to bridge this important gap.

Teaching Banking and Finance Online

The idea to deliver two finance courses on line was mooted in the year 2000. As a banking and finance academic at the USQ, the job of developing e-finance (undergraduate level) and e-banking and finance (post-graduate level) course was given to me. At the outset it needs to be clarified that these courses were designed to be a part of e-business programme rather than a traditional banking and finance programme. So the inputs were relating to use of technology in a banking and finance environment rather than relating to theoretical or operational issues in banking or finance. As a matter of fact the idea to run these courses was generated when I was revising the contents of the unit Financial Institutions Management. In 1998, I decided to include a separate module titled the use of technology in banking and financial services. However, given the rapid developments that were taking place all around at that time triggered by the Wallis Committee reforms (1997), it was found very hard to accommodate all these technological developments like internet banking, electronic payment systems like smart cards, real time gross settlement (RTGS) in one module and a need was felt to go for a new course. The faculty was very receptive to the idea of starting a new course and after lot of deliberations, it was decided to start not one but two courses, as above, simultaneously. These two courses were designed by me. I also prepared the course material. The design and material were later approved in departmental meeting. USQ had then signed with NextED for providing the technical support and platform for *USQOnline*. It was decided to launch the postgraduate course in semester 1, 2001 and the undergraduate course in semester 2, 2001. As the arrangement for loading of course material on the *USQOnline* was not in place at the point in time when the material was prepared, it was decided to print it and send it to students as is done in external-print mode environment. The rest of the work, that is, submission of assignments, marking, grading, feedback, answering to student queries was carried out online during the entire semester. Being a postgraduate unit, we did not expect many students.

However, soon after announcement that the unit will be run in online mode, we had 15 students registered for the course online and we decided to run it. It was decided to run the undergraduate course in all the three modes (face-to-face, external print and external online). For this course about 80 students registered. These student numbers may appear small but keeping in mind the size of this regional university these numbers were considered 'pretty good' in the first year of launch of the course. I left the USQ in June 2001 and barring the design of the course and writing of course material, I was not involved in the undergraduate course. I did run the postgraduate course in semester 1 of 2001.

Course Objectives

The course assumed that students have gained basic banking and finance knowledge in their undergraduate degree. The application of this prior knowledge in an e-commerce environment was what the course intended to deliver. Among others, the focus of this unit was on understanding of economics of Internet commerce, issues (including security) related to electronic payment systems and electronic banking, use of intranets for corporate finance, conduct of electronic financial markets and exchanges, risk management issues in e-finance and policy related issues.

Text and other material

Though the unit was an online unit, students was required to buy relevant text. The prescribed text book was Kalkota, R and B. Whinston (1997) *Electronic Commerce: A Manager's Guide*, Addison-Wesley, Reading. Additional reference material was Treese G and Stewart Lawrence (1998) *Designing Systems for Internet Commerce*, Addison-Wesley, Reading, Kalkota, R and B. Whinston (1996) *Frontiers of Electronic Commerce*, Addison-Wesley, Reading, Lawrence, E. et al., (2000) *Internet Commerce: Digital Models for Business*. 2nd edition, John Wiley & Sons, Brisbane, O'Mahony, D. Pierce, M. & Tiwari, H., (1997) *Electronic Payment System*, Artech House, Boston. This was supplemented by selected readings in each of the areas.

Student workload and assessment

It was envisaged that the student workload would consist of directed study of 56 hours, private study of 60 hours and assessments of 20 hours. Assessment for this unit included two assignments carrying 15 per cent weight each and 3-hour final end of semester examination. The first assignment was about issues involved in supervision of Internet banking with a word limit of 1500. The second assignment was about WAP and what are the banking services in Australia available on WAP and whether WAP will revolutionise banking. This assignment had a word limit of 2000 words. Both the assignments were summative. The workload and assessment methods used were the same as in other learning methods.

Students submitted their assignments online in the drop box. They were marked online and feedback was provided online. The grades achieved by the students were displayed in the 'check grades' area of the web page for this unit. The examination was conducted in the traditional mode, that is, students would sit for the examination

and write the exam and the answer books will be sent to the examiner by post. After marking the examination, the final result was displayed under 'check grades' area.

Electronic discussion group

An electronic discussion group was also established for the unit. The discussion group was used by some students to raise questions, discussion on relevant finance topic with fellow students. But generally the experience was the use of the discussion group was limited. Students preferred to interact with me through phone or email. I feel that because alternative modes for discussion/interaction, that is, phone and email, are readily available to students their use of discussion group is limited. Most students were working and as such had ready access to phone and email at the work place but not to the Internet. The access to the discussion group was provided through USQ *Connect* which one needs to access through the Web. Naturally, phone and email were the common modes of interaction.

Reflection on Teaching Banking and Finance Courses Online or How it Advanced upon Previous Practice, Especially in Terms of Learning for Students

Teaching of this unit online was a rewarding experience personally. The author was used to teaching in f2f and external (print) mode but the challenges offered by the online mode were unique. Following paragraphs provide a critical review of the work and state how the case study could help other online lecturers in finance areas.

Takes a great deal of time and commitment: Contrary to what I initially thought, I found online teaching to be more time consuming and required commitment on my part to respond to students as fast as I could. Students often posted messages to bulletin boards or discussion groups and expect replies almost immediately. Since 'online' is all about efficiency, probably students expect immediate response to their questions. I found that where there was a delay of even a day or two, immediate reminders would follow. On the other hand, when quick replies were given these were appreciated. This may be because in a face-to-face mode students get response to their question there and then and hence they expect similar response in online mode. I used to check the discussion group and bulletin board posting at least once a day if not more. As stated by Arsham (2001) 'Teaching on the Web is not really about distance learning...the teacher has to be available every day. Students expect instant response'. The timely response that is expected by online students could also give rise to work load issues. In my individual case, workload did not matter, since I was really excited about running this course online and willingly prepared to go the hard yards.

Information overload: It is not sufficient to just point to URLs to online students. It is important to go through the material that is presented at the website. Similar information may be available at other websites and it could be more succinct. Summers (2002) identifies that there are three types on online learners viz., the audio, visual and the kinaesthetic. The requirements of such learners need to be taken into account. Ryan *et al.* (2000) suggest that one of the major roles of an online tutor is 'that of educational facilitator...'. For example, in the area of risks in electronic

banking, it is not sufficient to point out to a speech given by Governor, of Reserve Bank of that country since much more up to date and detailed framework has been developed by Bank for International Settlement.

The talkative and the laconic: The variations in students that one finds in face-to-face mode is also seen in online mode. Some students never made any posting through out the semester- neither to the bulletin board nor to the discussion group. A few students (actually only three) made frequent postings. I found some of them to be very helpful. In one sense, they were doing my job. When a question is posted to the bulletin board, without waiting for me to respond some other student may respond. I encouraged this to happen since it promoted group work. It is often said that the best way to learn is to teach; hence when students guide each other it is better for the teacher to keep off. However, if you find that a wrong advise is being offered, it is important to intervene and set things right. You need not provide the answer yourself but just put a question 'is it really so?' or 'are you sure on that?' or 'would you like to confirm this?' etc. These and such other phrases could help and enhance collaborative learning.

Feedback of student learning: Evaluation of student learning in a face-to-face mode is on a weekly basis. Similar weekly evaluations are easily possible in online setting. In an online environment, initially I posted questions at the bulletin board. However, I soon realised that the same students were answering the questions. I therefore drafted some multiple-choice questions and stated who should answer what. This enabled me to get a quick feedback of student learning. Where I suspected learning problems I got in touch with those students separately.

Techno-phobia: All students do not prefer online learning. There are some students who have what is called a technology phobia. If students have not used a computer and web earlier, perhaps they may find the whole concept of online learning a bit bewildering. Online learning requires certain qualities in students. They need to be independent, self motivated, confident and above all disciplined.

More up to date information: As is the case with the finance and banking world, things are constantly changing and because of online interface it was possible to bring latest information to the notice of students. They were directed to the relevant URL and were advised to interact on the issues raised. For example, the Reserve Bank of Australia reduced the official cash rates during the semester and students were encouraged to discuss the implications thereof in the discussion groups. However, as already stated before, great care needs to be taken in selecting the URLs that one is advising the students to access.

Self-paced course: Online courses are self-paced. Students have complete control over when to study and what to study. However, this does not mean that students could afford to be haphazard in their approach to learning. There are strict deadlines to be met and given the flexibility, lecturers would rarely like to give extension of time for submission of assignments. From my experience, I can say that it does need lot of self-discipline on the part of students.

Skills necessary for online students: As stated earlier, online students need certain special attributes. They also need certain skills. These include using electronic mail, participating in online conferences, using chat rooms, familiarity with HTML and basic word processing skills. Barker (2002) states online tutors need to 'put together a 'toolset' of useful software tools that they need in order to carry out their tutoring activities in effective and efficient ways'.

Skills necessary for online lecturers and tutors: Just as prior skills are necessary for students, they are required for academics too. Adequate training opportunities must be made available for academics for successful operation of online courses. Bennett and Marsh (2002) suggest that 'the majority of tutors new to online teaching do not have the background of online learning experience upon which to draw'. They also contend that 'many tutors moving into online teaching are literally being asked to run before they can walk'.

From NextEd to WebCT: I accepted academic position in banking and finance area offered by the University of Canberra (UC) in July 2001. At the UC, WebCT was the web-based tool being used. UC is mainly a f2f university. It does offer offshore programme but these are again in f2f mode. WebCT is used as communication tool mainly to make lecture notes available. Transition from NextEd to WebCT was not too hard for me. The tools available under both systems are basically the same. One significant difference that I noticed between USQ and UC was that, students in USQ (a distance mode university) were more frequent users of NextEd online tools for communicating with lecturer and others, although while at IJSQ, I felt that they weren't. But when I arrived at IJC and experienced the student use of online communication tools, I felt that USQ students were certainly more frequent users of online tools. Since I didn't maintain any record of such a use at USQ, I am unable to substantiate this claim with quantitative data. At UC, I found that the use of WebCT by finance students is very minimal. I was therefore curious to know how WebCT is being used by the students of 'Financial Institutions and Markets (FIM)'. The class has 89 students, of which about 50 students are present on a given day in the class. Some of my students are working to fund their education and have sought permission to skip lectures and instead attend only tutorials. Some of them could be not available on a given day for various personal reasons. I administered a questionnaire to 51 students that were present during the lecture for this unit. It was indicated on the top of the printed sheet that 'the questionnaire seeks to find out how you use WebCT for learning of FIM. Just tick the use that you make of WebCT for FIM'. Six choices as under were given to students:

1. down load lecture notes
2. communicate with lecturer
3. check important announcements
4. check grades
5. communicate with fellow students
6. other.. please specify.

Out of the 51 questionnaires administered 44 submitted usable responses. Thus the response rate was 86 per cent. The responses received from students are recorded below in a table.

Table 1: Responses to questions by FIM students

Question No.	Question	Responses	% to total responses received
1.	Down loading lecture notes	43	98
2.	communicate with lecturer	9	20
3.	Check announcements	40	91
4.	Check grades	36	82
5.	communicate with fellow students	7	16
6.	other.. please specify	8	18

It can be seen from the above that the major uses of WebCT by finance students were for (in the descending order of use) –

Down loading lecture notes
 Check announcements
 Check grades.

The least use was being made for communicating with fellow students and for communicating with lecturer. Some students commented that they prefer to communicate with students and lecturer in person rather than through WebCT. Being a f2f mode university most students who are regular in attending classes any way meet once or twice in a week and the need to communicate via the WebCT is rare. For communicating with the lecturer, students preferred email, phone or in person visit rather than the WebCT. One reason for this could be my availability on the campus on all weekdays and an open door policy (students can see me any time even without an appointment) that I follow. This obviates the need to use the WebCT. However, the position was different at USQ, where nearly two third of the students were off campus and for e-finance and banking unit that I taught online all the students were off campus. Hence the use of NextEd for communicating with lecturer and fellow students was far greater than that in UC. I did not do a survey at USQ of use of NextEd, however, at the UC when I found that students were rarely using WebCT, I was curious to know the reasons and hence I did the survey as above. This shows that computer mediated communication tools like the NextEd and WebCT will be used in situations where the tertiary institution is distinctly a distance mode institution.

Conclusion

Teaching courses online could be very challenging. Universities planning to teach courses online need to carefully plan online ventures. There are several action points that arise when such a strategic decision is taken. It requires careful design of courses, skill building on the part of lecturers and tutors, prior skill requirement on the part of students, effective and efficient online technical support, proper assessment methods, relevant feedback mechanism so on and so forth. In Higher Education sector in Australia increasingly academics will get more involved in the process of online teaching whether they like it or not. My experiences with running of an online course in banking and finance are outlined in this paper. The findings of the quick survey of use of WebCT by finance students may also be of interest to

academics and results of this case study could also help other academics planning to deliver finance courses on line.

References

- Agarwal, R. and Day, A.E. (1998) The impact of the Internet on economic education, *Journal of Economic Education*, 29, 99-100.
- Arsham, H. (2001) Teaching an online course, *E-learning Post*, July (<http://www.elearningpost.com/elthemes/arsham.asp>) accessed 10.5.2002.
- Barker, P. (2002) On Being an Online Tutor, *Innovations in Education and Teaching International*, 39, 1, 1-13.
- Bennett, S. and Marsh, D. (2002) Are we expecting online tutors to run before they can walk? *Innovations in Education and Teaching International*, 39, 1, 14-20.
- Debreceny, R., Smith, G.S. and White, C.E. (1996) Internet methodologies and the accounting curriculum: A first look, *Accounting Perspective*, 2, 107-124.
- Department of Education, Science and Training (DEST) (2002) Higher education at the crossroads: an overview paper. <http://www.dest.gov.au/crossroads/pubs/3.htm> accessed on 15 May 2002.
- Evans, J. and Haase, I. (2001) Online business education in the twenty first century: an analysis of potential target market, *Internet Research: Electronic Networking Applications and Policy*, 11(3), 246-260.
- Grinder, B. (1997) An overview of financial services resources on the Internet, *Financial Services Review*, 6, 125-140.
- Herbst, A.F. (1996) The ways in which the financial engineer can use the Internet, *Financial Practice and Education*, 27, 111-121.
- Manning, L.M. (1996) Economics on the Internet: Electronic mail in the classroom, *Journal of Economic Education*, 27, 201-204.
- Pettijohn, J. (1996) A guide to locating financial information on the Internet, *Financial Practice and Education*, 6, 102-110.
- Ray, R. (1996) An introduction to finance on the Internet, *Financial Practice and Education*, 6, 95-101.
- Ryan, S., Freeman, H., Scott, B. and Patel, D. (2000) *The Virtual University – The Internet and Resource-Based Learning*, London: Kogan Page.
- Smith, S.D. (1996) Using EDGAR on the Internet to teach finance and business courses, *Journal of Financial Education*, 22, 76-78.
- Summers, L. (2002) 'Multiple Learning styles in web-based courses', WebCT, <http://www.webct.com/OTL/ViewContent?contentID=2334144> accessed 10.5.2002.
- [Wallis Report] (1997) *The Financial System Inquiry Final Report*, AGPS, Canberra.

Dr. Milind Sathye is in School of Business and Government, University of Canberra, Bruce, ACT 2617, Australia. (Email: milinds@management.canberra.edu.au)