

**Electronic submission and the movement towards a
paperless law office in a modern university**

MARSON, James <<http://orcid.org/0000-0001-9705-9671>> and VAN
HOOREBEEK, Mark

Available from Sheffield Hallam University Research Archive (SHURA) at:

<http://shura.shu.ac.uk/8871/>

This document is the author deposited version. You are advised to consult the
publisher's version if you wish to cite from it.

Published version

MARSON, James and VAN HOOREBEEK, Mark (2004). Electronic submission and
the movement towards a paperless law office in a modern university. *The Law
Teacher*, 38 (1), 27-40.

Copyright and re-use policy

See <http://shura.shu.ac.uk/information.html>

Electronic Submission and The Movement Towards a Paperless Law Office in a Modern University

James Marson* and Mark Van Hoorebeek**

Abstract

The Government's target of 50% of all under 30 year olds studying at higher education institutions by 2010, coupled with the National Committee Inquiry into Higher Education' (1997) concluding that further expansion of higher education could not be afforded under the existing funding arrangements, may have serious ramifications for higher education in the UK. Alongside this increase in numbers, students are increasingly seen as educational consumers with increased choice in a demand-led market which universities must recognise. To compete in this academic environment these institutions are having to be ever more consumer aware in the services they offer and are having to increase choice to attract customers from rival enterprises. Information technology is playing an increasing role in the learning experience as noted by institutional commentators such as the Higher Education Funding Council for England, the Joint Information Systems Committee, the Electronic Books ON-screen Interface group and Lord Dearing's Report. Technology's use is further evidenced through institutions' employment of the internet, e-mail and web-based learning to harness the power of this medium. This paper focuses on the concept of commercialism in the university sector and how a movement to a paperless office may be one way in which a university could gain an early competitive advantage over its rivals. The paper takes a student perspective to demonstrate whether students would wish to move towards electronic methods of submission of assessed work and considers the current problems that are encountered in physical submission of documents. This is the first paper in an on-going research project investigating the benefits and viability of a paperless law office, and the results demonstrate both that the students desire more flexibility in submission of university work and that their acceptance may be the easy first step on the road to the paperless law school.

Introduction

The movement to a paperless office has been discussed in the business literature for years (Sinclair 1961 and Coffey 1981, and more recently Gates 1999 and Sellen and Harper 2002) and particularly in the field of management where Japanese philosophies of compressing time and value in their production techniques (Ohno 1988), technology's use in aiding efficiency drives (Benjamin et al. 1984), and enabling access to new markets (Peppard 1993) have dominated western management thinking. This elimination of waste has been slowly moving into other areas of business and has led to commentaries on its applicability to education. The tradition of paper being an essential component in an office is challenged in major industries and has begun to be considered

* Sheffield Hallam University, Law Division.

** The University of Sheffield, Department of Law.

in universities where paper dominates teaching and research as well as submission of papers from students. It is this final point which is addressed in this paper.

Modern universities have increasingly moved assessment of students away from examinations at the end of the term to continuous assessment, and in particular essays, which are often more approachable to students who may have some disability which impairs their success in stressful examination situations and enables students to give more researched and in-depth responses to assessment than may have been available in examinations. This prevalence of essay-type assessment has increased the need for submissions from students throughout the academic year and placed an obligation on them to produce essays, which are often only accepted in word-processed printed form and often require the student to physically submit the essay to a school office, which then passes it to the relevant module leader. The module leader in turn distributes the papers to the module tutors; these tutors mark the essays, send these back to the module leader; the module leader arranges moderation of the essays; following this process the essays may be sent for external moderation and either collected by the students or physically placed in an office for a year or more until they can be confidentially destroyed. This process is followed by many universities and replicated in individual schools and faculties for almost every module which the student takes throughout their three or four years at university.

It is this antiquated process which led to the nature of this study and a consideration of alternative methods of enabling students to submit work which could remove the paper stage of this process, enabling the freer movement of the assessed work between the student and various assessors and enabling the greater possibility of plagiarism software to be used to ensure transgressors are discovered. The paper is the first in a series considering this issue of how paperless submission may affect a law school – from the students' perspective initially and then considering how the law school would be able to utilise this movement to electronic submission, and finally the viability and necessity for a paperless law office. This paper contains empirical evidence from students studying a law module and considers their perceptions and views of moving to electronic submission. As the students are the first step in the process, their perception is essential to the problems they encounter with physical submission and if they would be willing to use this new system. This is important to universities because of the increasing movement away from students who have the ability to devote three years of full-time study without any distractions of time and finance pressures to atypical students who increasingly have to work, may be part-time students, may be distance learning or Open University students, and those who may not wish to physically submit work at an office in set hours because of work, family, physical or geographical limitations. The study is also of current import because universities wish to be inclusive and enable many students to attend courses and have become more 'customer focused' and as such have to be aware of the changing nature of their customers at university and how to attract students – especially students from countries beyond the UK.

The paper considers the importance of the study and its relevance to modern, technology-enabled universities before outlining the data subjects and considering the findings. There

have been many studies conducted on this subject, mainly from an American perspective, but there appears to be a gap in the research from a UK perspective and this paper is intended to go some way to filling that gap.

Literature Review

The literature in the area has been vast and covered wide issues from management and educational perspectives as to the benefits and drawbacks of a paperless office. The research which has focused on the viability of a paperless office has been taken at a managerial level rather than from the perspective of a law office and this has caused differences to be uncovered. One of the proponents of the paperless office idea has been Gates (1999), who used research from Microsoft to demonstrate how it could reduce duplication of work, create savings in time and money, and enabled information to flow much more freely in organisations. A contrary position has been taken in recent research by Sellen and Harper (2002), who stated that a movement to a paperless office is a myth as most users prefer paper due to its physical properties (being easier to read, manipulate and is preferable to reading large amounts of text from a computer screen) and as such electronic documents and paper should be used together.

In the past decade, legal education has embraced e-mail, course web-sites, classroom technology, distance education has been extended, electronic libraries and textbooks, online tutorials, and electronic research and scholarship. More recently, the Concord University School of Law became the first American law school to offer a juris doctor degree online. One of the by-products of this digital revolution has been in the scholarship devoted to these topics. The research into technology's use in legal education has been dominated by the contribution to teaching through the use of Information Technology (IT) (Alldridge and Mumford 1998); the possibility of traditional law departments being replaced by virtual departments (Harbaugh 1997 and Johnson 2000); the limitations of IT in legal education (Allen and Robinson 1992); the use of IT in offering new teaching methods which assist in students' learning (Maume and Staudt 1987); and research which critiques the advantages and disadvantages of using technology in legal education (Saxer 2000). IT offers greater choice and flexibility for students and enables access to materials and information beyond the traditional department-based environment. It has become increasingly important in the education process and methods of harnessing this medium and extending its ability to add value require investigation. There is a need for research into how universities may benefit from a movement to a paperless office and how this is necessary in order to attract new students and retain current students and make the university as accessible as possible for these customers. Whilst previous research into the paperless office has focused on cost savings and eliminating waste, there has been little research into its use for customer service in the university sector and the way this can be used to gain a competitive advantage.

Methodology

This part of the study into the movement towards a paperless law office investigated the students' perceptions of electronic submission of assessed work. The project aimed to gather information on these students' willingness or not to submit their essays via disk or e-mail (hence enabling students to have more flexibility in their study). Due to the evidence which was sought, an empirical study was necessary and the data were to be quantitative. This study at this stage wanted to consider the students' views and problems which may be alleviated by the introduction of an electronic method of submission, therefore a representative number of students was important which would identify the viability of a proposed change, and whether this would be accepted by the end-users. This research project involved non-law students studying a law subject as part of their social science and business undergraduate degree programmes. They were chosen because of the nature of this type of teaching which exacerbated the situation noted above by requiring a further office to be involved in the process of admitting, handling, and distributing the essays submitted as part of the relevant module. The study included responses from 153 students (from 200 potential respondents), both full and part-time, who had studied six modules as part of their first year degree courses and of which required the submission of a written piece of work in the assessment mechanism. These students were considered to be relevant data subjects; they were questioned at the end of the academic year so had been through the process of submission, the majority were students who had completed a course on Information Technology, and they had experience of various methods of assessment and the accessibility of each.

Results

This focus on the students' perceptions of electronic submission involves considering how they would react to the possible change from physical to electronic submissions and the mechanism for this. It questions the practical issues faced by students in the current method of submitting assessed work and then questions the students' confidence in electronic submission and how the issue of security of submission and acceptance of essays may impact on their decision.

Students' Perceptions Regarding Electronic Submission

The students are the end users and recipients of the teaching and assessment which is provided by universities, and they have ever greater choice in the university where they wish to study and the course which they choose to take. There have been studies undertaken recently which question the basis of subjecting education and learning to market forces (including Clegg and Steel 2002, and Collis and Moonen 2001). These studies are quite correct that education is philosophically distinct from purely commercial endeavours, however, it is increasingly the case in modern universities that to survive income has to be generated and this income often derives from student numbers. Universities therefore have to become proactive in providing their potential customers with mechanisms to make the process more accessible, tailored to their needs, and provide more choice so as to compete with others in their industry (including colleges,

distance learning courses, the Open University). This is particularly so for modern universities where a movement has been made to focus attention to generate a 'surplus' in the services provided, a point which is not dissimilar to the commercial term 'profit', and one way of enabling this has been by increasing student numbers and improving the retention rate in subsequent years. The students were therefore questioned regarding the advantage for them of a more flexible system, and whether they perceived there to be any benefit from the inclusion of electronic means of submission and if so how they may wish to avail themselves of this mechanism.

When asked whether they would prefer to submit assessed work electronically the response from the students was that they would prefer to have that option (65% (100)) with only 35% (53) stating they would not. The question specifically wanted to assess the students' preference for this means of submission and as nearly two thirds of the respondents answered positively to this then it appears the students are in principle in favour of this method. The students were further asked by which means they wished to be able to submit work as this may have implications for whether the students simply wanted to remove the printing costs they encounter or if they do wish to avail themselves of the technology available which would assist students who lived away from the school office or even from the country in which the university is located. The students noted that they would prefer to submit by e-mail (56% (85)) and 31% (48) responded that they would prefer to submit by disk, with 13% (20) being happy to submit work by either means.

The students were asked whether they considered the introduction of compulsory submission electronically a positive or negative step as the movement to a paperless office would require such compulsion if it was to be fully implemented. Almost 60% of respondents (90) stated that they considered such a move to be a positive step for the university with only 14% (21) considering it a negative move. The students, in discussions with the authors, noted that they saw the necessity of physical submission a time wasting exercise, duplicating work and restricting their ability to travel and work by requiring them to be at the university at the time of submission. They also noted problems they often encountered in submitting work in a printed form and were therefore positive towards a proposed movement to electronic submission.

The Practical Issues Surrounding Submission of Work

The initial considerations of the practical issues surrounding electronic submission were to assess the students' access to the mechanisms to enable electronic submission to take place. This was investigated because an argument for electronic submission is that it would give universities access to students from atypical¹ means of study and increase the potential student numbers and increase retention of students – vital in modern universities. The students were initially asked whether they had access to a computer to assist in their production of essays and to enable them to submit word processed work. 99% (151) of the respondents stated they had such access and so have the ability to create

¹ By atypical the authors mean those students who work whilst studying, are part-time; have family commitments, or are restricted in the times they can physically access the university.

work capable of electronic submission – if they have the means to forward it to the office. As such, the next question asked was whether the students had access to the internet away from the free and accessible service provided by most universities. There was a positive response to this question as 70% (107) of the students noted that they had the access to this and as almost 60% of the respondents noted that they would prefer to submit their work by e-mail then many of the students do appear to have the means and will to submit their assessed work in this way and it also impacts on the nature of the students' study. The students' further responded that the majority of them (78% (119)) had undertaken some IT course in their first year of study which taught them the skills of using common applications based on the Microsoft Office suite, and further how to use e-mail and the internet for communication and research. The university also enabled the students to contact staff via e-mail and had recently undertaken research into the use of other IT to communicate with students via text messaging on mobile telephones (as in the form of a virtual message board); therefore the students were familiar with this form of computing and communication. The students were able to send their essays via e-mail across the internet and had the skills to use this tool. As they were in favour of electronic submission and had the skills and access to this mechanism, then it may at least be favourably received by students if adopted by the university.

The students were further questioned in terms of the practical consequences and issues surrounding electronic submission as to the problems they may have encountered in their experiences of physical submission. The student respondents noted their experiences of various problems with physical submission which included visiting university to submit work; problems with the queues when submitting work (as this case study university has over 300 students in any given year studying the same subject and submitting work at the same time to the same physical office); problems in ensuring cover sheets (required for some assessed work for feedback) are available; and problems in getting appropriate extenuating circumstances forms signed by a relevant member of staff to ensure late work can be accepted by the school office. This was once again linked to the idea that the universities have to consider students who may wish to have the option of using the available technology to facilitate more appropriate means of submission and cater for students who may not wish to physically have to print out work and submit it to an office. This was therefore the issue to be addressed in the first instance – the requirement for the students to print out their essays for submission.

Issues in Printing Assessed Work

It appeared strange to the authors for the continued requirement of students to print out their essays and submit these to a school office as this incurred expense to the students. The university staff had to collect the essays from one office and physically transfer these to the members of the marking team which had the obvious issues of confidentiality and ensuring essays did not get lost to contend with (experiences which many members of staff at the case university had identified). The students were informed at the university in which this study took place to ensure they retained a copy of their essay because if it was lost, the students would have the obligation to produce this and if not then re-write the essay to be marked to ensure compliance with university regulations. This was time

consuming for students, and further led staff to be discontented with the situation as submission for each module often happened at similar times throughout the year which exacerbated the problem the staff had with distributing these essay scripts. The respondent students noted that the average cost of printing an essay was between 50 pence to 99 pence (48% (74)) and that 12% (18) of students incurred costs of between £1 to £1.99, with 2% (3) of students paying over £2 on average for each of the six pieces of written work submitted each year. Whilst these costs are by no means onerous to individual students, if multiplied by the numbers of students each paying these amounts then it can be witnessed the collective costs involved and the relevance of attempting to find an alternative solution.

Even beyond the costs of printing, there was evidence from the students, and anecdotal evidence of quite extreme situations from staff at the print units, that many students had faced problems in getting work printed out which was ready for submission. These problems were varied and ranged from having the network at the university break down, which made access to the printers or work saved on the computers impossible to access, to students not giving themselves sufficient time to print out the work and missing deadlines due to the volume of printing on the university printers on submission dates. More than half of the students (56% (86)) noted they had at some point experienced a problem in printing work for their essays which impacted on their feelings towards this form of submission. This requirement of printed work resulted that some of the students missed a deadline or had to submit hand-written work – which, given that many departments include presentation of work as a proportion of the grade given for essays, meant that many students may have lost marks or created pressure for themselves. This had resulted in many students feeling unhappy at the prospect of losing marks, particularly when the university printers were at fault, and as the university would not accept this problem as a valid excuse for non- or late submission, the students were disgruntled and looked for an alternative to be made available.

The Problems of Physical Submission

Requirements of physical submission are also a distraction to becoming a student at university for some students who may live away from the university or may have personal commitments which are not catered for by requiring the student to physically take an essay in to a school office to ensure it has been submitted. There is also a movement to make universities accessible to students from countries outside of the UK; to utilise technology to make lectures available on-line and introduce distance seminars; and to move to a ‘virtual campus’ which encourages access to students who work or who wish to study in their own time and at their own pace. To facilitate access to these potential markets universities have to begin examining the ways in which they can enable such students to submit work and be examined, and they must also be aware of the problems which students currently experience. Most of the students to the study were full-time and young (aged 17-21) and therefore they often did not have problems in getting to the university to submit work. However, 28% (42) of the respondents noted they did have problems and this was particularly for the older students who may have had commitments outside of the university or part-time students who had jobs and were not at

the university every day as may be expected of the younger students. This is relevant as universities are recruiting part-time and older students who offer a different perspective from the typical student who comes to university straight from college and they often perform well in assessments and class contributions. If the universities are to gain these extra students, and consequently additional sources of income, then this issue of accessing the university to submit work physically requires examination.

Problems Experienced by Students Visiting University to Submit Work

Many universities still require students to visit the school office to submit their essays and despite the majority of respondents being young students who spent much of their time on the campus, it was still noted that nearly 30% (42) of these students had experienced difficulties in getting to the school office to submit work on time. This often resulted in these students experiencing pressure when deadlines for assessed work were set and this led to problems and stress for the students as well as the office staff who occasionally faced difficult situations with very upset students who had faced some delay in arriving at the office and these staff were unable to personally accept the student's explanation for the late submission – this had to be decided at the relevant exam-board which placed the student in a situation of having to wait to see if their grade was to be reduced or that the work had to be resubmitted. This problem was also noted by students when they faced submitting work physically with the long queues experienced, which caused them delays and frustration with the system, contributing to their negative feelings as noted above.

Students' Experiences of Queues at Submission Offices

Queuing to submit work may seem to be a minor problem to expect students to face but when seen from the students' perspective this is another drawback to life at university which does not appear to be necessary. As noted above, many universities now have increased student numbers to generate income and this can result, as in this case study university, with over 300 students attempting to submit work on the same day (and being students usually at the last available minute) which can lead to long waits for students as office staff fill out the appropriate paperwork and issue receipts. Again, over 30% (45) of the respondents had experienced problems with this aspect of submission which made them frustrated and led them to consider if an alternative method of submitting work was available.

The students are increasingly being considered as the “customers” of the universities and have faced inconvenience and expense with physical submission of assessed work, which was a substantial aspect of the argument for, and the study of, the paperless law office. The students have experienced difficulties and this has also created problems for the universities in the administration of the essays; appeasing the students who may be dissatisfied; incurring the costs; and placing the burden of distributing the volume of essays to the module team and control of the essays by the module leader which is increasingly problematic and may not be the best mechanism in the modern era. As this particular paper is focused on the perceptions of the students to the paperless law office,

the students were questioned as to their confidence if a scheme of electronic submission was adopted.

Students' Confidence in Electronic Submissions

In order for the system of electronic submission of assessed work to be available and successful the students have to be confident in submitting work in a way which is likely to be alien to what they have been used to in most modules undertaken. Students at least have a sense of security following physical submission where they are sure the essay has been accepted into the hands of a university representative and obtain a receipt which proves they submitted their work on time. The students were therefore questioned as to whether they felt the security of the system would be of concern to them to identify what the universities may have to consider doing to guarantee to the students that this method of submission was safe. The students noted that they were concerned with the security of electronic submission (80% (123)) and wished to have some electronic receipt available or a response from the lecturer responsible for the module, but were otherwise unconcerned with potential problems that may be present (files being lost in 'cyber space'; difficulty in proving a file with assessed work attached was actually sent; proof the university had received the file and so on).

The students were then questioned as to their perceptions of confidence in submitting their essays electronically which would enable the system to be successful and give the students the benefits which this method of submission would provide. 21% (32) of students stated that they would be 'very confident' in submitting work in this manner with 56% (85) responding that they would be 'somewhat confident' using electronic submission (a total of 77% overall confidence rate). Only 23% (36) of students stated that they would not be confident in submitting work electronically which, when considering that this is a system alien to the students, was a relatively small number and was dwarfed by the positive responses. In anticipation of this scepticism by the students the question was asked if the students would still like to retain the option for physical submission (to be run in tandem with electronic submission) so the system could be seen to work but allow those students who did not want to produce work in a word processed way, or who wished to submit their work physically to the university to have that option and not be discriminated against. 91% (139) of the students noted that they would like to have this option and that it would increase their confidence in moving to the new method of submission. The students could therefore be seen to be willing to try this new method of submission and it was therefore necessary to consider if this mechanism was a viable proposition to be considered beyond a process to make submission easier for students – there had to be tangible grounds for such a move which would benefit all the players involved in the system.

The Viability and Implications of Electronic Submission

Having addressed the students' perspective as to whether they would want this option and choice of submission; the problems it could overcome which are currently faced by students; and how it would, in the longer term, potentially increase the scope and viability

of attracting overseas students by enabling them to study using the available technology as opposed to having to reside in the UK to complete their studies at a UK university, the actual system which would be put in place was considered.

The system appeared viable as the students were interested in the subject and the possibility of using the technology in a practical sense. Many of the students had studied the use and theory of Information Communications Technology, experienced this in the practical courses they undertook in workshops, witnessed it, and expected this, in the way they were taught, and then when it came to their submission of work this had to be done physically to a school office when they essentially were transferring from the electronic to the physical form to assist the university or because an alternative was not made available. The technology already exists in most universities for the students to use e-mail and the internet to share information and files, software such as 'First Class'² enables senders of e-mail to check if the mail has been received, saved, moved or the attachment file downloaded and enables the sender to obtain a receipt on delivery, and the software is available which would enable the lecturer to check for plagiarism and check authenticity (such as Turnitin – see Van Hoorebeek 2003) or word counts which may be difficult in physical submission of essays. IT has moved from merely computing to include communication facilitation and if used strategically (Marson and Massey 1998) it can produce great benefits for companies in reducing costs, improving productivity and providing a competitive advantage. Universities are now in a highly competitive environment and students are considering the facilities and resources which are available in their choice of institution and hence electronic submission of assessed work is a factor universities have to take seriously.

There are benefits for both the university and the students. For the university it would be to reduce costs and time of administration by office staff; it would be to utilise the available technology and be a leading university in this area – which may be a factor considered by students who may wish to study away from the physical location of their chosen university; the university would be able to access more students and potentially increase access to this customer base; it would make the university more family friendly and give the students the opportunity to study when is most suitable for them. For the students the advantages would be the increased synergy between the theoretical and practical elements of the education system at university they have been exposed to. Many courses include technology to enhance the students' learning experience which can encompass the use of research tools such as Westlaw and Lexis-Nexis in classrooms and lecture theatres, teaching and revision material in electronic systems such as Blackboard, and more contacts with the university using the available technology (such as mobile phone communication as demonstrated above) to keep students aware of happenings at the university which makes their experience more pleasant and rewarding. There have been numerous studies which demonstrate the benefits of a variety of teaching and learning styles to stimulate students (e.g. Sims and Sims 1995) and by encouraging these and not taking the next logical step appears to be a waste of the resources and a limitation to students who witness a lot of wasted time and duplication of work which provides

² An e-mail system which was used in the university where this study took place over their intranet.

them with a negative impression of university study – compounded by this antiquated system.

The implications of the adoption of this system, it is proposed, would be to increase the access to students who may otherwise have difficulties with physical submission. Increasingly, legislation is attempting to remove barriers to work and study for those who have commitments as demonstrated in the Employment Act 2002. This legislation encourages family friendly policies to be adopted by employers to assist those workers with family responsibilities to be able to continue working but still have the ability to attend to their domestic commitments, and universities need to consider the service they offer in similar ways. Many universities have policies to hold classes between 10am and 3pm to enable those potential students with families to be able to attend university and this aspect of awareness of the customers' needs is an opportunity to gain a competitive advantage above the others in the industry (Porter 1985). Whilst this is not to diminish the aspect of academic excellence in a students decision as to which university he or she wishes to study, universities are now competing with each other and student numbers are an ever increasing relevance in the universities' income structure. Making the university as open, accessible and accommodating as possible can help to recruit and retain students, and focusing on this as universities do on their product (through Developmental Engagements and the Research Assessment Exercise) can increase the satisfaction of all individuals involved in the process.

Discussion

The findings from this empirical research were indicative of the fact that, in principle, students would welcome the choice and flexibility that paperless submission would provide. The evidence has demonstrated that cost savings for the students are possible and it would enable administrative staff to free-up valuable time and not have to manually accept and receipt coursework from students. From this perspective it corroborates the work of Gates (1999) but extends this into the specific benefits a university organisation would encounter such as customer satisfaction and control of sensitive information. This research differs from Sellen and Harper's (2002) work by demonstrating the viability of a law office moving to a paperless method of submission of assessed work. Paper is unlikely to be completely removed from most offices, including the education sector, but this research has attempted to highlight how being paperless would benefit students and paper does not need to be relied upon as a means of students having their work graded. The main disadvantage of paperless submissions would be for the tutor marking several essays and having to read large amounts of text on a VDU and requiring a computer to do this. The electronic medium is certainly not as flexible as its paper-based counterpart and marking without a pen and paper and possible problems with feedback would have to be considered. These points will be specifically considered in the following paper of this project. However it may be considered that the benefits outweigh the disadvantages. Providing the tutor with the choice of on-screen feedback or printing the essay and then assessing the work in the traditional way would further afford options for them and having several essays (typically at the case study organisation between 60-120 essays per unit taught) available on e-mail or accessible anywhere via the university

network would further enable tutors with disabilities, location or mobility issues to grade work at their convenience and meet the ever more stringent turnaround times insisted upon under university regulations.

Conclusion

This paper was produced to begin the examination of the viability of electronic submission of essays for students and how this move towards a paperless law office may be initiated. The students are the key component to this as they have to be willing to use this method of submission and have the skills and availability of the technology to fully utilise this method to gain the advantages which are available to all the players involved. The paperless law office will remove an administrative burden from office staff and module leaders by enabling direct contact with staff to essays which can then be accessed out of hours and improve the access to university to students who may wish not to study in a typical fashion and necessarily at an institution in their locality. IT needs to be utilised strategically to enable it to facilitate access and increased profitability for universities whose main source of income is through student numbers and retaining those 'customers' throughout their academic studies. This paper has demonstrated through empirical evidence at a modern university the willingness of students to use this form of submission as they see the benefits to themselves and the usefulness to tutors and administrative staff who would have greater access to the essays and would assist in feedback and a quick turnaround of essays – increasingly important due to time pressures and the volume of work academic staff are being faced with. This paper has been the first step in this investigation as the study will continue by assessing the university staff's perception of electronic submission before offering a more in-depth investigation into the viability and benefits of a paperless law office. These are the initial steps towards a system which is set to radically change the nature of access to university for many students and is one which progressive universities must accept if they are to have a competitive advantage in the ever competing world of education.

Bibliography

Alldrige, P. and Mumford, A. (1998) '*Gazing into the Future Through a VDU: Communications, Information Technology, and Law Teaching*' *Journal of Law and Society*, Vol. 25, pp. 116-133.

Allen, T. and Robinson, W. (1992) '*The Future of Computer Assisted Learning in Law*' *Journal of Law and Information Science* 3, pp. 274-286.

Benjamin, R. I., Rockart, J.F., Scott Morton, M. C. and Wyman, J. (1984) '*Information Technology: A Strategic Opportunity*' *Sloan Management Review*, Spring 1984, pp. 3-10.

Coffey, M. (1981) '*Toward the Paperless Office: A Case Study of the Impact of Technological Change in IBM Australia*' Kensington NSW: Department of Organizational Behavior University of NSW.

Clegg, S. and Steel, J. (2002) '*Flexibility as Myth? New Technologies and Post-Fordism in Higher Education*' <http://www.shef.ac.uk/nlc2002/proceedings/symp/08.htm>.

Collis, B. and Moonen, J. (2001) 'Flexible Learning in a Digital World: Experiences and Expectations' London: Kogan Page.

Dearing, R. (1997) 'The National Committee Inquiry into Higher Education' HMSO.

Gates, B. (1999) 'Business @ the Speed of Thought: Succeeding In the Digital Economy' London: Penguin Books.

Harbaugh, J. D. (1997) '*Legal Education in 2010*' Florida Bar Journal, Vol. 71, pp. 57-63.

Johnson, S. M. (2000) '*www.Lawschool.edu: Legal Education in the Digital Age*' Wisconsin Law Review, Vol. 85, pp. 85-126.

Marson, J., and Massey, P. (1998) '*The Strategic Use of the IT in the Supply Chain*' Journal of Financial Information Systems. www.shu.ac.uk/schools/fsl/fisjnl/index.html.

Maume, D. J. and Staudt, R. (1987) '*Computer Use and Success in the First Year of Law School*' Journal of Legal Education, Vol. 37, pp. 388-398.

Ohno, T. (1988) 'Toyota Production System' Portland: Productivity Press.

Peppard, J. (Ed.) (1993) 'IT Strategy for Business' London: Pitman Publishing.

Porter, M. E. (1985) 'Competitive Advantage: Creating and Sustaining Superior Performance' New York: The Free Press.

Saxer, S. R. (2000) '*One Professor's Approach to Increasing Technology Use in Legal Education*' Richmond Journal of Law and Technology. www.richmond.edu/jolt/v6i4/article4.html.

Sellen, A. J. and Harper, R. H. R. (2002) 'The Myth of the Paperless Office' Cambridge and London: MIT Press.

Sims R. R, and Sims, S. J. (Eds.) (1995) 'The Importance of Learning Styles: Understanding the Implications for Learning, Course Design, and Education' Westport: Greenwood Press.

Sinclair, J. (1986) 'Information Processing and the Electronic Office' London: Pitman.

Van Hoorebeek, M. (2003) '*Legal E-Book and Intellectual Property Issues Involved with Student Use*' The Law Teacher, Forthcoming.