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A Legal Academic's Changing Office

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This paper is the result of discussions with legal academics and personal experience of working within the Law School of De Montfort University. The paper looks at how the legal academic's office has changed in the last ten years, with the increase of computers, software, databases and networking and the Internet; and how these changes in information technology have changed legal academics' work administratively, in teaching and in research - both positively and negatively. The paper also looks at why the information technology has not been embraced by all legal academics and what, if anything, needs to be done to change this. The second part of the paper examines what legal academics would currently like to have within their office and how this would help in administration, teaching and research. The final part outlines the currently foreseen developments in information technology and how these will affect the development of the legal academic's office over the next ten years. The changes (positive and negative) that may arise from a wider acceptance of this information technology are also discussed. In this final discussion the cost of the increase in information technology in academics' offices is discussed and the conclusion drawn that though the price will be high it must be paid if institutions wish to stay in the premiership tables of late twentieth and early twenty-first century academic life in terms of research, funding and education.

Introduction

This paper looks at the changes that have taken place in the legal academic offices over a ten year period at the School of Law at De Montfort University (which coincidentally is the time that one of the writers as spent working in this institution). The paper looks at the changes that have actually happened within academic offices within this period; the staff have been surveyed as to which of the changes in their offices within that time are felt to be for the better and which for worse; and what changes they would like to see in the future. A search of recent psychological work was carried out to see if any work could be found in this area and what, if any, factors should be taken into account in the design and/or use of academics' offices.

A convenient starting point is a dictionary definition of the word office: `building in which business, clerical work etc. is done'.

A modern office will contain a number of items, including desks, chairs, ... etc. There will be a number of groups operating within the work environment. These groups may be part of the management structure or may consist of informal groups of friends or acquaintances. A group may exist in a single office or may link a number of offices. There is evidence [8] that groups that contain, or are exposed to, a `minority influence' are better than groups which are not. It appears that is because the `minority influence' can be effective in encouraging the group members in `originality

and divergent thinking'.

 The environmental factors that affect `job satisfaction' are shown in fig 1 (see Appendix)[Gallucci, 1997]. These include furniture and equipment, privacy, lighting etc. We have so far spoken of general offices and there environment, and we have to ask the question, `Is there any thing special about the academic office compared to other offices in other work environment'. Most offices take information, process it, and pass it on: in an academic's office, the occupant or occupants are expected to carry out a number of complex and varied tasks which may include teaching, counseling, research, producing materials, administrative work, etc. These tasks have probably not changed significantly in recent memory, but the methods and technology employed in carrying them out certainly have. The chart in fig 2 (see Appendix)[Duff et al, 1994] shows a comparison of offices in various different fields, in terms of `Nature of work' and `Nature of change' for office organisation. The academic office is seen as fairly low change and fairly non-routine, although moving towards higher change and becoming more non-routine. This may be compared with the accounting firm office, which is seen as fairly high change and routine but moving towards the less-routine. Note that the professional legal office is similar to the academic in terms of change but far more routine, although becoming less so. This diagram dates from 1985 and the speed of change has accelerated for most types of office, but this acceleration is, we suggest, particularly marked in the case of academic offices which were probably slower to adopt personal computer technology on a large scale.

Has anything else happened to change the position of the academic office (or can we predict anything that might change it).

 The survey of the academic staff at DMU Law School is best viewed in relation to the history of the School of Law (for summary, see Table 1 in Appendix). During the last ten years there has been a significant increase in staff and student numbers; a major redevelopment of the building in which the School is housed; and the development of a second department (the Department of Professional Legal Studies). These have had major effects on the legal academic office, the environment within the School, and the groups that make up the School. The ten year period has seen a major leap in computer technology, for example, from the 8086 to the Pentium, from DOS to Windows.

Brief outline of the past ten year history of DMU Law School

 Ten years ago most academics shared an office. Since tutorials were carried out in offices, one cohabitee might seek refuge in the Senior Common Room (SCR) which was then a thriving concern. The SCR was also a centre for conversation between staff and a thriving coffee fund operated, and although certain groups within the staff could be identified the contact between the groups took place within the SCR.

 When the School left the building which was its home, so that the building could be redeveloped, it spent a year in another university building. Staff had to share large rooms, often of four people, so there was no space for an SCR. This changed the group dynamics of the staff.

 Finally, after the `dark days', the School moved back into a redeveloped building. The vast majority of staff now had an office, and a computer, each. People brought their own kettles and the common room ceased to be the centre of staff contact, and declined in use along with the central coffee fund. Part-time lecturers had their own room. The groups within the staff still existed but casual exchanges took place in stairwells, corridors and office doorways instead of in the SCR. The new building allowed the entire School (which now exclusively occupied almost the whole of the building) to be cabled for data networking - an expensive component of a restricted budget. This networking coincided with the start of the university's use of the Internet, and with developments in the WWW. New computers had to be purchased because staff who had previously shared computers were now in separate rooms.

Why some may have not embraced the new technology

Some reasons for not adopting the new technology that have been expressed are: not thinking it appropriate to type ones own letters, memos or materials; time constraints; being too old a dog to learn new tricks; or even (although perhaps not said in as many words) because of status within the university.

A number of studies have been carried out to discover why individuals may be resistant to the introduction of IT in the workplace. [Martinko et al, 1996] outlined some which include: previous bad experiences with IT - `it failed me once so it will fail in the future even if it has been changed'; or `if colleagues or superiors don't like the IT then I don't like it either'; or where an individual cannot see the usefulness to him or herself of the implementation. But these reasons for rejection can be turned on themselves and used to demonstrate how IT can be used; most obviously, perhaps, where senior members of an organisation set an example by using the technology successfully themselves.

Some individuals may feel that computers somehow `dumb down' work and thereby devalue their job status in some way: `computers are something used by typists or by technicians'. The work of [Medcol, 1996] investigated this question and tried to establish whether computers were seen as dumbing down or uplifting the experience of work. They showed that `it all depends' - if work carried out on the computer has high cognitive demands, such as programming or professional work, then spending time on the computers has a positive effect, whereas with low cognitive activity the time spent in computing has negative effects. In the academic context, researching using the computer can be considered a high cognitive activity, laying out teaching materials is medium, and retyping from notes is lower still. Where administrative tasks lies on the scale may well depend on the precise nature of the task..

Questionnaire Results

To see if staff within DMU Law School had noted any changes (for better or for worse), what these were, and also to see what changes they would like to see in the future, they were asked to fill in a simple short questionnaire consisting of seven questions. They were given a number of options to tick and also asked for anything else they could think of. Some of the findings are presented and discussed here.

54 questionnaires were distributed and 23 were filled in and returned.

Of those that replied:

- Nine had worked at DMU for less than five years (of whom, seven had joined in the `out' year and three were part-time lecturers); seven had worked at DMU between five and ten years; and seven for more than ten years.
- Fifteen staff had computers in their rooms, the other eight did not - of these, three are part-timers who share one room, two use their own portable PCs, and three have requested not to have a computer in their rooms in the past. Of these, one's request was because of incompatibility with home equipment (computer/word processor PCW)
- Naturally, all staff offices have lighting, desk, chairs etc, but staff were asked what other facilities they had in their rooms. Some examples were offered in the question but they were asked to list any other.
- Eighteen had single rooms, two others share a room, and the three part-time lecturers share.
- Eight have e-mail access, nine have WWW access, and five have a voice box facility on the

telephone, all have kettles.
- Of other facilities, one person reported having a self-purchased answer phone and another reported using fax via world wide web.
- On being asked what changes for the good had they experienced during their time at DMU, fifteen said having a single room (a relatively small group had had a single room in the past).
- Nine said having a computer in their room was an improvement, six - having e-mail address, four WWW access, and four a telephone voice mail box.

Comments on these changes included

Single office:

- `Easier to work - less disturbance from colleague's class'

Computer in the office:

- `useful for administration'
- `makes it much easier to prepare work and carry out research'
- `computer in office vital for references + handouts'

E-mail:

- `speeds up communication'

Voice mail:

- `I have a lot of teaching hours - voice mail acts as a answering machine.'
- `No student can claim they could not contact you'

When asked to outline changes for the bad, only the lack of a typing pool was regretted by two members of staff - of these, one actually wanted a typing pool and one remembers the old days.

Negative comments included:
- `lack of secretarial support can delay things'
- `lack of support staff in the light of increasing administrative responsibility'
- `teaching in office can be difficult'
- `large tutorial groups so that tutorials can't be held in office'
- `being just off the foyer - noise, shouting "Come in" to students who can't hear'

When asked what changes they would most like to see in the future in their office,

- Ten people would like a faster computer, eight a new printer, seven a computer that they could dictate to, twelve would like access to All England on CD-ROM, and ten access to journals via the computer.
- Six wanted more bookshelves, four wanted a home page, one electronic conferencing, and one the ability to run e-mail tutorials.

Other changes included

- `more use of e-mails instead of memos'

Why these changes?

- `more effective working'

Comments on the Results

Overwhelmingly people liked their single offices and there were no regrets for the `camaraderie' of the old days in shared offices - in fact, it was felt that there was more space under the new system. Only two of the replies reported changes for the worse, and for both it was the same thing - the demise of the typing pool, although in fact only one of them would be able to remember the typing pool and the other really just wanted one. On the other hand, this is known to be regretted by other staff but they had not replied to the survey. The vast majority now had a computer in their rooms, but access to such as e-mail and WWW was only sparsely reported as a change for the better. This may because the majority have so far had little cause to use it. If the School were to adopt a policy of using e-mails to replace internal memos (as some of the other local universities have done) this might change.

Over half the number of people with computers in their rooms expressed a wish for a `faster computer' and nearly as many for a better printer (some just wanted a computer and printer at all). In this context, it is worth noting that being obliged to work with obsolete computers is one of the factors contributing to stress in users according to the `Computer Hassles Scale' developed by [Hudiburg, 1995], based on a study carried out on students. It was, by and large, the same group who wanted further access to journals and databases via the computer in there room. Of these, a high proportion wanted to be able to dictate to their computers (voice control). This would appear to indicate that a significant proportion of staff (or at least of those who replied) are becoming computer literate and are following developments in legal computing, although six traditionalists did want more bookshelves.

When asked to indulge in flights of fancy, the staff proved largely unimaginative. Bigger rooms was requested by two staff and `a comfy chair for students' by one of these. One member of staff did want access to Vorgan law reports but, as this is an imaginary race of aliens that he has invented for tutorial problems, this wish seems unlikely to be realised. The questionnaire results indicate that those staff members who had not wanted a computer in the past now saw that they would need to join the rest, albeit with some provisos - such as, suitable training courses for them and computers that they could dictate to. No gender difference in the use of computers emerged, which echoes the findings of [Durndell & Thompson, 1997]

We should like to thank those people who took part in the questionnaire.

The future developments in IT and the academic's office

Within the foreseeable future we should see the total acceptance of IT within the legal academic community. This conversion will in some cases be voluntary, in others a more grudging acceptance because everyone else is doing it, and in part through the gradual replacement of retiring academics with younger, already computer literate, staff. Improvements in networking hardware and software will continue. Methods of course delivery will change with WWW sites being the main method of distribution of course materials. (see for example Cavendish Publishing website). The advent of virtual universities may mean students following courses from classrooms and homes throughout the world. The presentation of information will change from books into databases and virtual libraries.

One obvious way that the academic's office may change over the next ten years due to information technology is that it may cease to be based in the university and move out into the academic's home

through what is known as teleworking. If this occurs, it is important to consider what effect this will have on the use of space in the home, and on relations within the family. The current practice, common amongst academics, of taking work home can have adverse effects. A number of studies [see Jones & Fletcher, 1996] have taken place showing how stress and mood due to work can affect relationships when `work spills over into the home', although the results are not always as you might suspect - there is no evidence that workers have a `...worse mood' on Mondays than on any other day. Teleworking can lead to a number of psychological problem [see Norman et al, 1995] of which a major problem is a feeling of isolation and of lack of control over the work; also, the distinction between work and home can be lost which may itself give rise to stress. Teleworkers will have to be taught how to work in a new way and to develop new coping strategies for the particular problems associated with these changes.

Positive and negative aspects of these changes

There are many positive aspects of increased involvement of IT in the academic environment. For example, the use of the web in teaching has been found to provide a better experience for the student [see Sloane, 1996] in a number of ways: they gain access to information that is `more up-to-date than is possible in a traditional university library'; the students benefit from a more individual learning experience; and there is evidence that electronic classrooms [see Lindwarm et al, 1991] give better control of learning and improve learning. The use of e-mail communication has been shown to have `considerable potential for use in improving university instruction' [see Russell et al, 1997] because it is `rapid, yet [allows] time for deep reflection...spontaneous, yet [permits] an accurate and permanent record...that could be reviewed again and again'. There is also evidence that groups of academics like to communicate and resolve conflicts via e-mail rather than by meeting[see Austin, 1996], although electronic departmental staff meetings are hard to envisage.

What might be the down side of these changes? It is possible that some bright academics who cannot adapt to the changes may be lost to universities if information sources move to electronic rather than book form. Others may not like the changes when students move from being live bodies in their office for a tutorial into being a mail group on a email system. Some may doubt that the sources of information on the Internet be relied on. An effect in schools has already been observed, namely that whereas, in the past, teachers were seen as the gatekeepers to information, now, due to the Internet, they are not. [see Perks et al, 1997] It remains to be seen how the role of the academic librarian will change.

The cost of implementation of these systems.

The cost of World Wide Web access has, so far, not been included in such things as departmental library budgets and has been effectively free to staff and student users, but it is likely that this will change. Information that was at one time free on the web is increasingly being placed in subscription-only sites, so the convenience of having access to traditionally printed journals at ones computer will also have to be paid for. The cost of replacing increasingly rapidly dating equipment such as computers and networks will have to be borne - updating might need to be undertaken as often as every two years on computers. Although the recent emphasis has been on the delivery of life-long education, academics will find that it is necessary that they themselves undergo retraining and will need to take updating courses at an increasing rate.

There will be a need for unlimited access by academics to their institutions' networks, both from home and on the move so equipment will need to be purchased by the institution for home use. The demand for these changes may be dictated by the need for institutions to compete to provide students with a high quality of educational experience, to teach greater numbers of students, or because other institutions are doing it. The student body is changing, in that they are increasingly becoming paying customers who see themselves as consumers. Modes of delivery will have to change and the cost must be borne if institutions are to survive commercially.

Conclusion and future work

There is clearly great potential for the academic's office to change in the future, the biggest factor being the use of networking facilities. This will mean that the term may cease to be applied only to the traditional dedicated office at the institution and will reach out to encompass wherever the academic is. There is evidence within this limited research that academics are willing and eager to take up this technology provided they are shown its full potential and provided the money is available to purchase the right equipment and services. It would be interesting to explore the changing academic office at other institutions and in other countries and this we intend to do; similarly, to look at what other disciplines, beyond psychology, can offer as a way of looking at the academic office. An extensive (but not exhaustive) literature search has shown little work by the psychologists on the academic's environment - teachers in schools [eg Randhawa & Paveligh, 1997], school children [eg Nakata & Shiomi, 1997], university students - especially psychology students [eg Gallucci, 1997] and secretaries in universities [eg Mwamwenda, 1997] have had their environments and work conditions studied. It is noticeable that psychologists tend to focus their educational research on groups of their students, rather than on the academics themselves, prompting a heartfelt cry from the writers of this paper of `psychologist study thyself'. In future work we intend looking at what the sociologists and Human Geographers might be able to contribute.

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Appendix
Click here for Picture
Figure 1

Click here for Picture
Figure 2

Fig 3: Comparison of the De Montfort University School of Law Academic Offices Over the Last Ten Years

	Ten Years Ago	Today
School	One Department	Two Departments
Number of Staff	20 (approx)	55
Occupancy	Two members of staff per office - norm	One member of staff per office - norm
Part-time lecturers room	None	one communal room
What is contained in an office (per	Desk	Desk
person unless stated)	chair	chair
	table	table
	lighting (room and desk)	lighting (room and desk)
	Bookcase/shelving	Bookcase/shelving
	telephone (one per room)	telephone (one per room)
	filling cabinet	filling cabinet
	chairs for tutorials	chairs for tutorials
Extras in Office	Computer (not the norm)	Computer (not the norm)
	Printer (not the norm)	Printer (the norm)
	Kettle (not the norm - large membership coffee fund in SCR)	Kettle (norm - no coffee fund in SCR)
Size and shape of offices	Rectangular - approximatly 20 sq m	Wedge - approximatly 14 sq m
Use of Office	Base within the School	Base within the School
	Base for Research	Base for Research
	Base for producing teaching materials	Base for producing teaching materials

	Base for administrative duties	Base for administrative duties
	Tutoring	Tutoring
	Meetings with students	Meetings with students
	Meetings with other staff members (formal and social)	Meetings with other staff members (formal and social)
Computer System	8086 Processor	486 Processor
	20 MB Hard Disk	400 MB Hard Disk
	350 KB floppy Disk ?	1.44 MB hard Disk
	MS DOS 3	MS DOS 6
	-	Windows 3.11
	-	Mouse
	WordStar 3	Word 6
	14" Mono Monitor	15" Colour Monitor
	9 Pin Dot Matrix	500/600 mono HP Inkjet
	No Network Connection	Connected to academic network
Network Access	-	Internet
Resources - Office	-	World Wide Web (Netscape 3)
	-	e-mail
	-	Lexis
	-	Library catalogue
Home Computer (if any)	Amstrad PCW running Locoscript Approximately 5 members of staff had them.	Pentium with Windows 95 & word processor. 24 staff have computers at home. 15 replied to questionnaire. 4 with network connection