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# Professors and Professionals:
## *on changing boundaries*

Sheila Corrall & Ray Lester

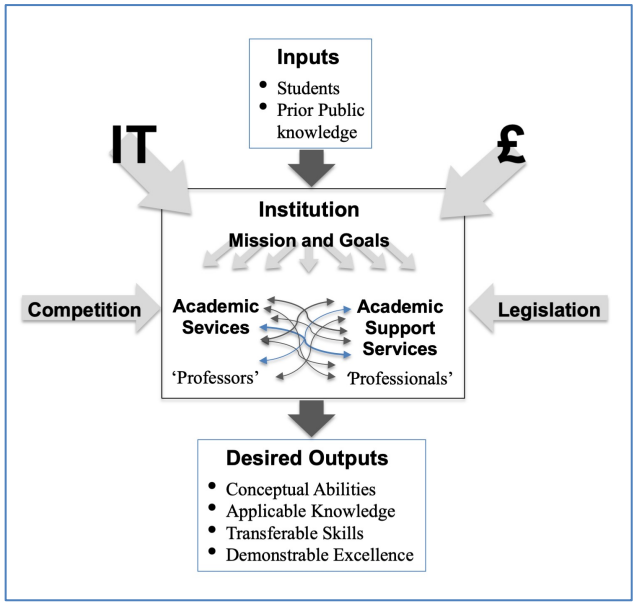
### Introduction

While academic support services are essential in higher education, the scale and scope of their operation has always been open to question, with their activities often being viewed as overheads by their supposed beneficiaries. At present, when downsizing, delayering and decentralising specialist corporate functions are significant trends elsewhere, this attitude is marked. The relationship between professional support staff and academic colleagues is uneasy, veering from critical dependence to indifference or resentment. At best, academics acknowledge the importance of support services but are reluctant to pay for their upkeep. More often they are seen as underachieving and overpaid supernumeraries, and prime candidates for replacement by machines.

The professors are right to ask questions, but the debate is rarely constructive or strategic. One of many anomalies is the apparent disparity in the grading and status of different professional groups, for example between library staff and less experienced administrators and computing staff with fewer former credentials. There are also more fundamental considerations which will in turn illuminate other areas. Key issues include what these support services contribute to academic activities, how IT will affect future developments and competitive positioning and whether there can be a generic model for service provision, resource allocation and institutional planning. We examine these issues in the information services context. Our perspective is that of library and computer service directors, but our argument has some relevance for other specialists and administrators. The particular focus is the blurring of boundaries and convergence of interests between professionals and professors.

### Environmental imperatives

The model shows the primary inputs to the institutional environment as students and prior public knowledge, and suggests the desired outputs are applicable knowledge, conceptual abilities, transferable skills and demonstrable excellence. The inputs include a complex mix of student types and the outputs relate to teaching/learning and scholarship/research.




Institutional activities are categorised as academic services (provided by professors) and academic support services (provided by professionals) with their shape determined by institutional characteristics. The former label embraces all academic members of the institution; the latter covers almost everything else that supports academic activities. The blurring of boundaries between the services and

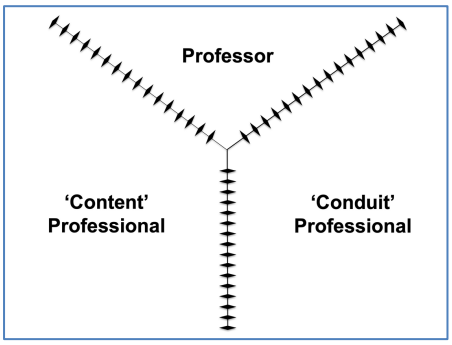
the nature of the para-academic role at the centre of this model are the key areas for exploration. Although the influences on higher education at present are well known, the sum of their effects is to create a new situation which needs a fresh perspective if we are to make sense of the massive forces for change which have thrown the whole system into turmoil. The significant driving forces are the economic and electronic imperatives. IT changes within the last few years have brought us to the point where the forecast revolution in working practices is really happening. That is not to say that support services have been immune to other environmental factors, but a detailed account of these influences is beyond the scope of this article; the issues have been fully documented and discussed elsewhere (Follett 1993, Corrall 1995).

## Service assumptions

The traditional library service has at least in recent years taken the form of a centrally managed facility. Traditional facilities are supplemented by various services. Users have tended to place higher value on the collections and related facilities and been less likely to put a premium on the value added services in which professional staff take particular pride. The shift to an access strategy is a significant trend (Corrall 1993).

On the computer side, there has been a similar scepticism about services beyond the provision and operation of equipment, although academics have been more ready to acknowledge the technical complexity of the work involved and accept the need for professional specialists. Decentralisation has replaced the historical model of central mainframe services, with specialist support often provided in departments. The ability to deliver processing power to the desktop has reinforced the academic view that all that is needed is an infrastructure that works, with a minimal number of expensive professional intermediaries, so computing services have found it difficult to convince colleagues of the value of central support services, while students, as with libraries, have shown more interest in the centralised services available.

Convergence is the big organisational and political issue for library and computing services. There are assumptions that this emerging trend will continue, but the picture offered in the literature or from conference platforms is short sighted and incomplete. It also oversimplifies many of the issues involved.




## Boundary disputes

Figures two and three explore the shifting boundaries between academics and library/computing professionals along several dimensions, in relation to both teaching and research, and in the context of short-term as well as longer term changes.

We argue for a tripartite view, embracing three types of player: broadly categorised as the professor, appointed on the basis of his or her academic specialism; the content professional, expert in the organisation of information; the conduit professional, expert in the technology itself. Considering the shifts already taking place it is more appropriate to think in terms of information specialists and IT specialists without defining them by qualifications, knowledge or skills. While there is growing support for the argument that there many common elements among library and computing personnel, we believe that this is a valid and useful classification, yet acknowledge the possibility that some professionals combine competencies from both areas.

Complexities emerge when we consider the blurring of boundaries between these three types of players, represented by eight examples of hybrid professionals. For convenience, we have given these examples labels reflecting some roles undertaken or titles used in universities.

On the boundary between the academic and information specialist, we have identified the subject librarian and the research assistant working from a departmental base.

The subject librarian, professionally and possibly academically qualified, will have an understanding of the structure, terminology and concepts of the literature of the designated field. The job will involve advising on resource selection, user education and information skills teaching and answering subject queries. Liaison with academic staff will be a crucial component.

It has never been entirely clear on what basis such posts are 'academically related', not least because the number of genuine subject specialists has tended to be relatively low. On the other hand, there are information specialists who have integrated their information skills input with student assignments and delivered units in tandem with academic colleagues, and library staff have also helped shape changes in teaching methods and course content.

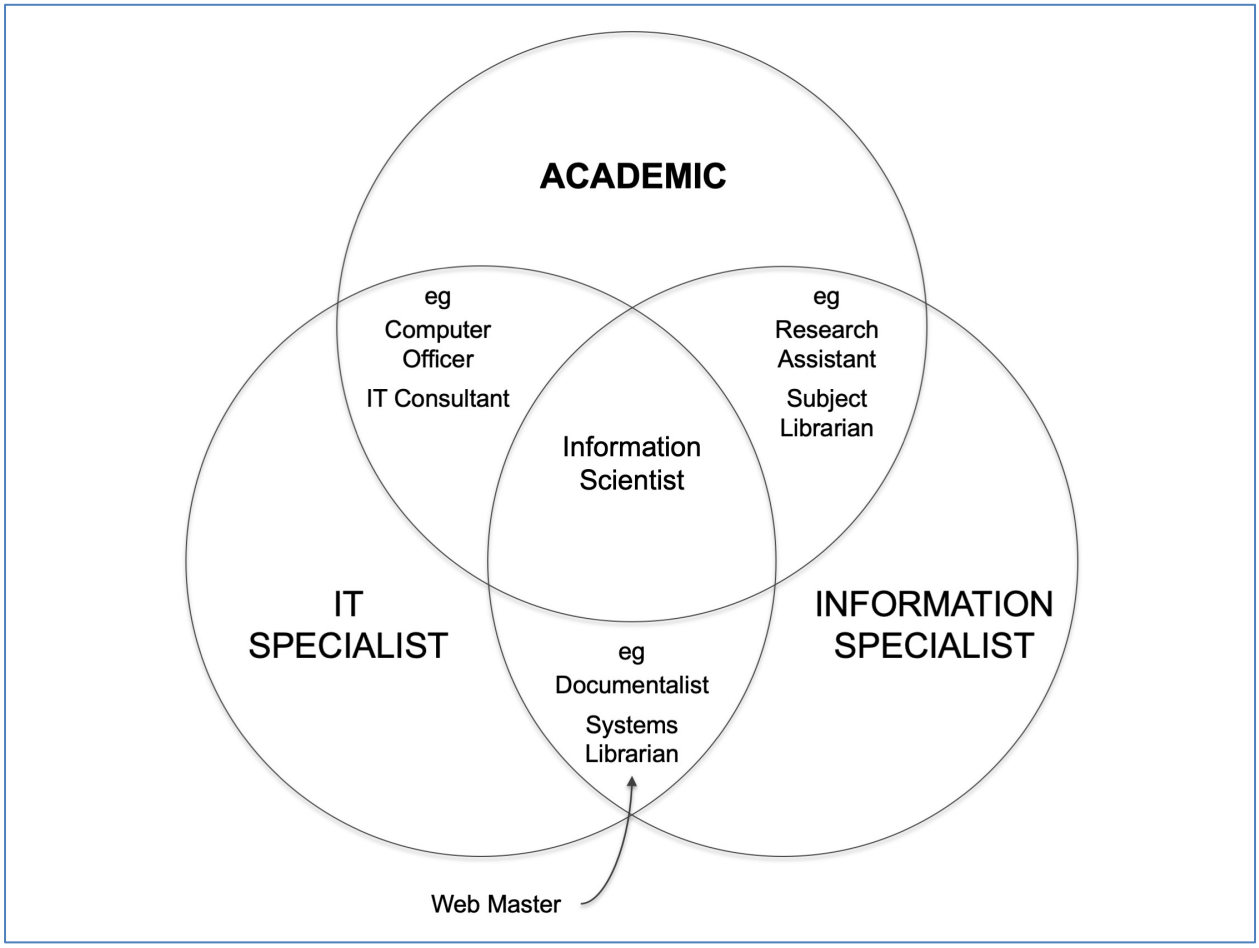
Current thinking on the subject/information librarian role is confused. Fielden (1993) favours a single integrated grading system for library staff, but sees the para-academic role of learner support as critical and recommends formal agreement of responsibility boundaries with academic staff. Heseltine (1995) strongly criticises the idea of subject librarianship, but advocates the development of teaching and communication skills to turn librarians into "professional educators" with a model of wholesale convergence of all academic support services.

Our views have not changed over the last 15 years (Lester 1979, 1984). User education in a university library must be driven by the needs of the academic discipline, led by academic staff and ideally carried out by lecturers, with librarians on hand to advise if required. Information handling should be integrated with academic course work; it should not be taught in isolation or for its own sake; information systems should not be so difficult to use that this becomes a substantial subject for study in its own right by people for whom it is not a primary concern. Ironically, although the end user is now much more in mind, it will be quite some time before so-called user friendly systems are good enough to remove the user need for help with the technology to use networked services, and also professional advice on search techniques.

The research assistant is appointed on the basis of academic qualifications, probably with a fairly narrow remit and no explicit responsibility for information work. In practice, literature searches are conducted and relevant material is sought for professors.

Academics often question the costs and benefits of subject/information specialists in the library. Professional opinion is divided: the success of library support for teaching and research is hard to measure, and therefore to justify. Some libraries have introduced multilevel subject-oriented support embracing degrees of complexity up to consultancy services. Others make new academic appointments aware of facilities and resources, perhaps offering current awareness services. In practice, few libraries are staffed at a level which enables them to do this systematically, so provision is patchy.

In the past, the subject/information librarian was often able to make a distinctive contribution by carrying out online searches for academics, but the upsurge in end user searching has dramatically reduced this role to the point where it has almost disappeared completely. It seems unlikely that the library will fulfil a substantial mediated research support role in the future, as the combination of networked self-service access and availability of research assistance within departments will obviate the need.




On the boundary between the academic and IT specialist, we have chosen the two illustrative roles of computer officer and IT consultant. The decentralisation of academic computing in recent years has reduced central computing functions at a time when the library has tended to become consolidated as a centrally managed service, albeit with distributed access. The focus of campus computing services is now on planning and managing the networked information infrastructure, support for shared facilities, and a range of advisory services emphasising training, facilitation and self help.

The IT consultant on the boundary is likely to have a significant customer service dimension to his or her work. Some university IT services have reorganised into separate divisions for network/facilities management and user support. (In so-called converged or merged services, this is generally the area where operational convergence has come closest to fruition, with information and IT specialists working together as a team.) The role of the IT consultant covers advising on hardware and software acquisition, training and application and equipment problem solving. The academic dimension is perhaps less obvious than with library counterparts, but including computer literacy/IT skills as compulsory course modules has strengthened this. Potential overlaps with library staff responsibilities can also cause user confusion.

The role of departmental computer offic*er* is particularly associated with departments which have a discipline-based interest in IT and a tradition of employing their own computer staff to meet specialist needs and heavy dependence. The spread of IT and distributed processing, has led to similar appointments in a range of departments. Similar roles are performed to the centrally based IT specialists. The decision to invest in specialised departmental staff depends on factors such as size and physical location, degree of dependence on IT and the level of service available from the centre.

The nature of the job in terms of technical complexity and academic role varies with the subject discipline. Laboratory based departments use computer officers to teach and conduct research in the subject discipline, whereas in others the role could be limited to IT skills training.

Approaching the border between libraries and IT/computer services, we find the professionally qualified librarian, often with a technical services background with a well of knowledge, skills and experience derived from running library housekeeping systems. Traditionally known as the systems librarian, this role also is changing and the more technically advanced libraries have seen the need to have someone who can take a strategic management responsibility for all library IT based systems. The growth of IT use in libraries, particularly in the form of local CD-ROM networks, has resulted in many libraries setting up systems teams of library/information specialists and genuine IT specialists. This includes the new breed of network support officers, possessing either information or IT expertise, and specifically the web master, responsible for Internet and Intranet support. Sometimes posts of this kind are outside the library and linked with university/public relations functions.

Coming from the other direction, there is the documentalist, housed in a central computing service and managing documentation. Commonly this post is filled by a non-specialist.

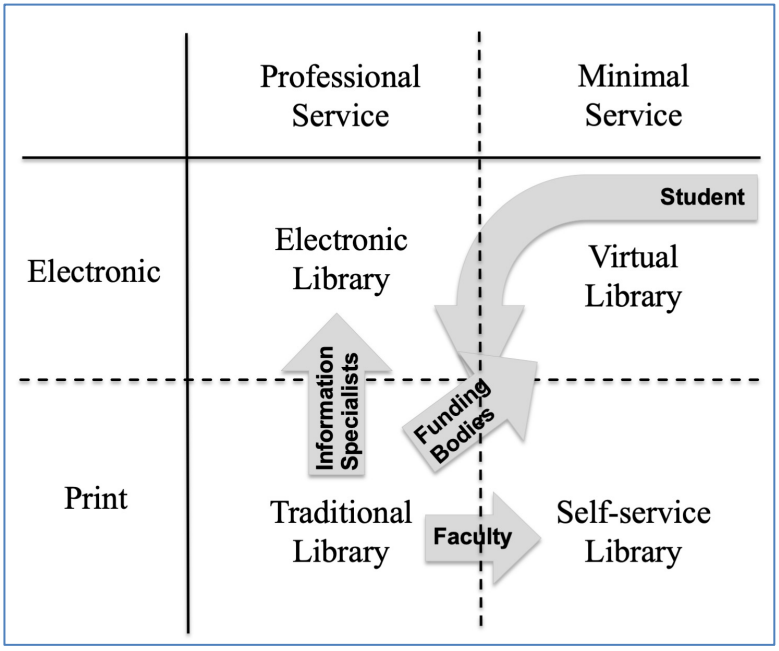
At the centre of our model sits the real information scientist, combining information, IT and academic specialisms. More common in industries where a combination of specialist subject knowledge and IT-based organisation of knowledge is essential, they also have a potential role to play in academic institutions.

## Stakeholder priorities

For the library of the future, our model predicts a spectrum of provision, ranging from on-site published print holdings to local access to remote electronic data sets. Electronic information services will embrace many publishing media and delivery modes, as well as informal and semi-published information. Seemingly intractable problems of ownership and copyright will be resolved, and the future user will not need sophisticated searching skills,

Economics and electronics will ensure a move away from traditional print-based professionally-staffed library and there are three possible scenarios, representing the preferred future of different stakeholder groups.

The electronic library is the model favoured by information specialists. It involves a progressive shift from print to electronic provision, but assumes a continuing role for large numbers of information professionals as expert navigators, organisers and instructors. There may be variations involving upskilling of library assistants into paraprofessional posts, or delayering, which represents a more revolutionary view of the academic library as an information centre more like those of the commercial and industrial world.



The self-service library is the model that appeals to faculty. Here substantial staff cuts are seen as the answer to increases in the number and prices of titles published. The extreme version retains a large number of print format serials coupled with generous purchasing of monographs and expensive reference works in hard copy. IT ensures efficient and economic housekeeping and more effective information provision. Systems will be relatively user-friendly and trouble-free, and the staffing requirement is mainly for attendants and administrators. The model appeals to research-oriented staff and those who wish to redistribute the budget to increase purchasing and opening hours while reducing professional staff costs.

The virtual library is the model favoured by national and local paymasters. The Funding Councils have invested heavily in the national IT infrastructure, including the take up of new technology in all areas of academic activity, with huge success as far as the infrastructure is concerned, although other programmes may have delivered less than anticipated. Irrespective of this, the Follett initiative has successfully highlighted problems and suggested possible solutions. These have also been brought to the attention of key opinion formers at all levels within institutions.

Whatever the reception and success of the Follett Report, it is now widely accepted that the traditional view of library services is no longer adequate for the challenges of today and tomorrow.

How does the student fit into these scenarios? Although likely to be paying customers, they are the least likely to exert influence on future developments. Their preferred model is probably a mix of all four scenarios: they want the latest technology, abundant supplies of hard copy textbooks, self service facilities around the clock, minimal staff intervention but expert help if they need it. Most institutions will opt for a mixed economy, so they will get what they want in general terms. With budget pressures and competition growing, both on and off the campus, how they fare in particular institutions will depend on who holds the balance of power. While library staff have tried to protect student interests, the RAE may begin to exert even stronger influence in the opposite direction. Significant moves in the direction of devolved budgeting could create service level variations between departments, depending on how they choose to allocate funds between books, periodicals, library salaries and other expenditure.

## A generic model?

There is no accepted appropriate level or percentage of institutional expenditure on library services or other academic support services. Nor are Inter-institutional comparisons instructive because of the number of variables involved.

The relative priority given to teaching/learning and research, and the number of disciplines covered must affect both the level and type of provision considered as essential or desirable. So will the way that services are organised, which in consequence will reflect other management arrangements within the institution. Follett and Fielden, while not making specific recommendations on the subject, convey a fairly strong message on the inevitability of closer working arrangements between library and computing services.

The current pressures for convergence include anticipation of cost savings in a climate of continuing budget constraints. In practice, many factors influence the decisions taken by institutions, not least those of personalities and the opportunities created by departures of existing service heads, which often trigger a rethink (rather than a planned strategic review).

Arguments in favour of convergence include: the greater flexibility of combined budgets, improved responsiveness through joint planning and management, more effective staff deployment, joint induction and training sessions and shared academic liaison. Against these are set concerns about dilution of expertise and loss of professional identity. Co-operation and teamwork among library and

computing staff will become more important as the technological dependence of the library increases; additionally, as the size of central computing units decreases their viability as separate operations must be questioned.

Ultimately, each university will determine needs and priorities and decide what sort of support services it requires. As yet there is a lack of hard data on whether the quality of library/information/IT services is a critical success factor in attracting either students or academic staff. The often cited quality of periodical subscriptions in attracting researchers probably only applies in extreme cases, good or bad. For students, impressive IT support, rather than library facilities, are more likely to represent a competitive advantage.

## Conclusions

The virtual computer centre is here and the virtual library almost with us. The electronic imperative raises important questions about distributed facilities and decentralised management. It renews scrutiny of the roles and responsibilities of professionals in academic support services: the 'priesthood' of central computing staff disappeared with the demise of the mainframe, and professional librarians are now similarly threatened. Academics have long suspected that these jobs are primarily about maintaining the infrastructure. The situation has become further confused with the blurring and shifting of boundaries – between professors and professionals and also among the professionals themselves.

There are sound reasons for retaining centrally managed library and information services committed to a corporate approach to planning and developing the IT infrastructure. For the foreseeable future, users will still need considerable help in obtaining access to the information they need, on both technical and legal/economic grounds. In the longer term, user support and training could be provided online from a remote off-site source. Without central co-ordination and control of site licences, decentralised information services will lose the economies of scale, and policy covering information use, intellectual property rights and data protection will still require institutional decisions within a strategic framework.

Specifically, in the long term we predict downsizing and delayering of the professional cadre of information specialists supporting particular client groups. In future this kind of support is likely to be justifiable only at the level of faculties or schools. But a key responsibility will be to anticipate and manage shared information access across traditional subject boundaries, ensuring optimum value for money from institutional investments in information resources for research and scholarship. The same principle applies to developing strategies for managing access to software and data generated internally.

On the question of changing boundaries, we expect the situation to remain fairly fluid among the professionals. We have already seen significant shifts across a range of support services and staff, and as we are driven towards more novel ways of working and further restructuring, the professionals will regroup and require even wider yet in some cases more specialised skill sets.

But we do not subscribe to the para-academic model; the value of the professionals' contribution must be defined in terms of their own specialist knowledge and skills. For information and IT specialists the core competency is in information management, but on its won this is insufficient. Information workers will also need personal qualities and other abilities to offer a truly professional contribution to their institutions. The professors in turn will need competence and confidence in managing information in the electronic era, without becoming information specialists. The way forward must be on the basis of mutual respect and partnership.

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Sheila Corrall is University Librarian, University of Reading.
Ray Lester is Head of Library & Information Services, Natural History Museum.