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University libraries and the postgraduate student; physical and virtual spaces

Beard and Bawden (NLW)

Introduction

Academic libraries worldwide are going through a period of great change, adapting to new demands for the support of learning and of research, and to new forms of information provision; see, for example, Brophy (2005), Bawden and Robinson (2012, chapter 15) and Carpenter, Graybill, Offord, and Piorun (2011).

In particular, given the transition of many academic resources to digital formats, university libraries are having to confront the need to reconsider how their space is used. If the collection, which previously required large physical spaces for its storage and use, now occupies a largely virtual spaces, what is the future for the 'library place', and what is the right balance between physical and digital provision?

As information resources become increasingly digital, so the function of libraries and information centres moves away from that of essentially a storage space for physical information products. If they retain a physical space at all, what is its purpose? A store or archive for the residuum of physical materials? A quiet place for study and reflection, a 'thinking place', where, as in a newly designed medical library, users are encouraged to "slow down and take a mind break" Kao and Chen (2011)? A stimulating environment for creative innovation? A social space, or meeting place? There are numerous possible answers, and the best solutions still have to be worked out. Many academic libraries appear to going down the 'social hub' route, providing a space for meetings and collaborative work, and for cultural activities, to complement information provision; as examples for academic libraries, see Bryant, Matthews and Walton (2009) and Waxman, Clemons, Barning and McKelfresh (2007). These new concepts have strong implications for the design of new academic 'information spaces'; see, for example, McDonald (2010, Beard and Dale (2010) and Latimer (2011).

We must now think of information spaces (and often also information products) as comprising both physical and virtual parts, within which individual information users operate and with which they interact. Pomerantz and Marchionini (2007) and Niegaard (2011) give a clear analysis of the changing nature of information spaces; see Bawden and Robinson (2012, chapter 4) for additional discussion and references.

A good understanding of the needs and behaviour of library patrons, and potential patrons, is a necessity, if these issues are to be addressed in a way which is helpful for development of future services. There is a considerable body of research on library use, and on information needs and behaviour, for undergraduate students, and for faculty; for overviews, see Case (2012) Bawden and Robinson (2012, chapter 9) and Rowley and Urquhart (2007). Postgraduate students (graduate students in US terminology), whether on taught Masters courses or on research degree programmes, are a relatively neglected, though important group. There have been

relatively few studies examining this particular group, at least in institutions in the developed world, and the results are somewhat inconclusive; for examples of such studies, see Barton et. al. (2002), Robertson (2003), Hegarty, Hayden and Foley (2009) and Kayongo and Helm (2010), and see Beard (2011) for further discussion.

This study examines the library/information issues affecting postgraduate students in three English universities, focusing specifically on their perceptions of the value to them of physical and digital resources and spaces, and how well their needs were being met. It is based on a dissertation (Beard 2011), in which fuller details of all aspects may be found.

Study Methods

The three universities were chosen as being of different sizes, having differing perspectives on library/information provision, and having a focus on different forms of education provision. The three institutions chosen were: Southampton University; Bournemouth University; and Queen Mary College, University of London.

Southampton University is a long-established institution, having been established as a University College in 1902 and a full university in 1952. It has a strong research reputation and a portfolio of courses across a wide range of largely traditional academic subjects. Bournemouth University is one of UK newer universities, created in 1992 from the former Dorset Institute, and providing a largely professionally- and vocationally-focused educational provision. Queen Mary College has been a constituent college of the University of London since 1915, and has a particularly strong research and teaching presence in science, technology and healthcare.

Although this gives a good 'spread' of university environments, the study is still restricted to three institutions in one country, so the general validity of its findings should be regarded with care. Similarly, while the study attempted to cover as wide a variety of postgraduate students, as possible we should be clear that these do not form a homogenous group, in information terms. There are bound to be distinct differences, particularly according to subject, but also age, gender, prior educational experience, personality etc.; and the sample is again limited to those studying at universities in southern England.

With these caveats, the study methods were designed to give a broad a picture as possible of the information environment of postgraduate students at English universities. To this end, the main research method was a questionnaire survey of students; despite its drawbacks, this is the most effective method of obtaining the views of as wide a survey population as possible. Both students on taught Masters courses ('taught students') and those undertaking research degrees ('research students') were included. This was complemented with interviews with library staff of the three institutions, to assess the interaction between the views and intentions of the providers with the perceptions of the recipients. All three institutions have several physical libraries, with services dedicated to particularly user groups; all of these were included in the study, again with the aim of getting a broad and inclusive picture.

The questionnaire was designed so as to seek the same information for physical and for virtual library provision, and to particularly seek free text comments as well as 'tick box' answers. The questionnaire was designed with input from the staff of the three libraries, to ensure that the questions and terminology made sense in their context, and was then piloted with a small number of students at one university; this led to some modifications from the draft format.

The survey was presented online, using the *Smart Survey* software. To maximise response, it was extensively publicised with business cards and posters incorporating QR codes, mass emailing to student cohorts to reach those who did not make much use of the library, mentions on student web pages. Publicity had to be done differently at each university due to different circumstances; from the response rates, it was clear that electronic promotion was much more influential than printed materials, with mass emailing the most effective method. A prize of a £40 Amazon voucher for one participant was offered as an inducement to participate.

Semi-structured face-to-face interviews were carried out with one staff member at each of two institutions, and two staff members at the third institution.

Results

In view of the numbers of students being targeted, the time of year at which the study had to be carried out (summer period), and the generally poor response to questionnaire surveys, it was decided at the outset that a response of 20 participants from each institution would be minimum acceptable as providing valid information. In the event, this was exceeded for all, the responses for the three institutions being 73, 36 and 134. The poorest response, 36 students, came from the institution at which only limited electronic promotion had been possible. The set of 243 responses was analysed as a whole, since the interest was in discovering commonalities within the postgraduate student community, rather than investigating differences between institutions. Statistical significance was not tested for, in view of the relatively small sample size, and the convenience sample approach. The results are given in quantitative and qualitative detail by Beard (2011); here we report only the major findings, as they affect the main issue of this paper.

Questionnaire results

A large majority (65%) of students taking part were studying full time and lived less than 45 minutes from the library. The next highest response group was composed of full-timers living more than 45 minutes away (25%). Part-time students comprised only 8%, evenly split between those living close by and further away, and only 4 respondents were distance learners.

Students were asked how often they visited the library over the period of a month. When we look at the student body as a whole the most common response from all the students was 10 or more times (34%): 8% claim to visit 8-9 times, 20% 3-4 times,

and 16% claim to visit once or twice a month, and the same percentage never. Taught students visit more frequently than research students, and international students more than EU students, with home students the least frequent visitors.

A question on how important physical library space was elicited the result that 38% thought it very important, 28% important, and 32% unimportant. Again taught students and international students viewed it as more important than others.

Respondents were asked to rate the importance of aspects of most library buildings. These items were: silent study space; group study space; staff availability; borrowing books; using books on site; physical journals; electronic journals; coffee shop; WIFI; computer terminals; catalogue access; printers; photocopiers and communal areas.

The results from all the respondents were that silent spaces were rated highest with 82% saying important or very important, in contrast to 48% stating that group space is important or very important and 32% stating that communal areas are important or very important. Both taught and research students rated silent areas very highly in their needs of a library, group areas fairly high and communal areas the least important. International and EU students placed higher value on group and communal areas than home students.

Of all respondents, 96% said that the borrowing of books was important or very important and 84% said that using books on site was important or very important; again international, EU and taught students were more positive than others, but overall this was thought highly important. There was a strong preference among all groups for e-journals over printed journals.

More than half the respondents saw coffee shop provision as unimportant; again, research students showed less of an affinity with the physical space of the library and especially communal or non-educational spaces. By contrast, a large majority (85%) rising to over 90% for course and non-UK students, thought wifi access important. A similar pattern was found for other technology facilities - PCs, printers and photocopiers – and also for catalogue access.

Regarding the importance of the availability of library staff, three-quarters of the students rated it as important or very important; there was no distinction in this case between taught course and research students, and there was a closer similarity between home students and others in this aspect of provision. However, this seemed to reflect a need for assistance with administration or practicalities, as 85% indicated that they had not asked for substantive help with a subject enquiry.

Students were asked if there was a specific post-graduate area in the library of their institution, if so if they use it or if not would they use one, and what features and staff assistance they would expect in such an area. The results indicate that there is a strong desire for such an area among all students, that silent study space is most desired form, that there is an expectation of good IT facilities, but that there is a lack of interest in staff help.

Most students felt that the physical library provision met their needs reasonable well, less than 20% rating it as 'poor ' or 'very poor'. About 40% stated that library facilities had been a significant factor in choosing the institution for study; this was more pronounced for students from outside the EU.

The set of parallel questions for the virtual library space gave largely analogous results to those asking about physical space. 56% of the students that responded said that they visit their library's online services 10 or more times a month, 6% 8-9 times, 14% 5-7 times, 10% 3-4 times, 10% once or twice and 4% never. Taught students make more use than research students, and non-EU students more than others.

54% of the students rated the libraries online space as very important and 21% as important; again, higher ratings were given by taught students, and by those outside the EU. Free comments for this question emphasised the perceived importance of online facilities. Use of specific online facilities follows this same pattern, with the exception of e-journals which are used to the same (large) extent by all the student group. A large majority (over 80%) did not wish to see features like virtual chat reference, or other social media features; this is a marked difference with the often presumed wishes of students, based on studies of undergraduates.

The proportions feeling that they were well-served by the libraries' virtual services was very similar to the opinion about the physical space. When asked which was more important, 42% of all the students responded that the online services are most important, 47% that both are equal, and 11% that the physical space is the most important. Notably, 29% of taught students considered that the online library is the most important, while 64% of research students agreed. This suggests that the current trend for hybrid libraries is appropriate, and again shows that the physical space means more to the taught students than the research students.

In answer to the open question on what would improve the physical library space, the most common response was more silent study areas. The equivalent answer for the virtual space was a greater range of e-content. To a question on what was the best feature of the library, the main response was its collections: 32 mentioning online resources, 20 physical resources and 17 mentioning both. General ambience, silent areas, IT facilities and staff all got about a quarter this number of mentions.

Interview results

Allowing for local differences, the responses given by library staff at the three institutions were generally rather similar. All claimed that provision to postgraduates was a high priority, although resources had to come 'from the same pot'; it might also be that undergraduate needs had greater prominence, as they were a larger group. All believed that they were providing a good service to this group.

Responses from all the institutions suggested that they were not convinced that there was any sharp distinctions between undergraduate and postgraduate groups;

discipline, and mode of study (full-time, part-time, distance, etc.) were stronger influences, and the main distinction was between students on any form of taught course and those engaged in research. This viewpoint is, to an extent, at variance with the findings of this study.

All the institutions saw the future as involving an even balance between physical and virtual space. The main issue for physical space was to find an appropriate 'zoning' for different forms of library activity. For virtual space, it was to expand the content available, and also to ensure that realised that the resources were associated with the library, when they are, for example, embedded in an e-learning system.

Discussion

Despite the limited scope of this study, some clear conclusions can be drawn.

For research students, the library has become less valid as a physical space due to the fact that many have their own space, be that an office or at home, and, due to the self study element of being a research student the need for the structure that a library brings is not as high. Something that is a worrying trend for the academic libraries is the fact that what appears to be a large number of research students regard themselves as not using any library resources at all. This may be down to the fact that they are using e-content that they do not recognise as being provided by the library or, arguably more worryingly, using resources that they have access to through work, private subscriptions or private networks. This is of concern to the academic library, as this is a proportion of the student body that could be utilising the library resources available to them but are not. As they are choosing not to, this could lead to the researcher becoming disenfranchised with the library and purposefully avoiding using any resources or locations that are provided by it. Something needs to be done to increase the attractiveness of the library to the research student, both in terms of the space available to them in the building and the resources that can be provided to them. Nor are these issues restricted to research students; they are echoed by all the postgraduate groups that were part of this study, albeit with less extreme responses.

One of the major issues raised is the aspect of silent study space, with every group saying that silent space is the most important to them when compared to group and communal areas. While silent spaces are provided by each institution the question has to be asked 'are they silent?'; areas that are designed to maximise introspective thought are often not as silent as the students expect. One bad experience for a student could mean that they do not return; and if the library does not provide a sanctuary from the cacophonous world outside for those of its patrons who wish it, then surely it is failing them.

When looking at the way that the different nationalities view the library, it was a common theme that the international students hold the library and everything that it represents and provides in a high regard and maintaining this should be a priority, given the importance of this group in economic terms. The UK and EU taught

students have a similar outlook on the library, which seems to fit in between the apathy of the research students, and the positive view of the international students.

In terms of electronic versus physical content, it is clear that for journals the digital format is now overwhelmingly predominant. All the student groups in this study regarded the print journal as an unsatisfactory alternative if an e-version is not available. For books, the situation is more complex. For a variety of reasons, e-book formats have not as yet gained wide and general acceptance, and the transition to a largely digital collection is slower; see, for example, Blummer and Kenton (2012), Folb, Wessel and Czechowski (2011) and Foasberg (2011).

The results of this study suggest that, for postgraduate students, the physical library still has an important role as a place of study. Although the resources that nearly all students want and expect are digital, they still enjoy working within the library and the environment that it provides for study. A substantial majority of respondents favoured areas set aside for postgraduate use. However, for such areas to be fully effective, they need to be well stocked with IT facilities and clearly designated as either silent study or group work space. Simply indicating a part of the library as a 'graduate centre', or similar, with no distinctive features of this kind, is unlikely to be worthwhile.

This suggests that, for these kinds of students, the future of the library should be as a place of study that has excellent computing facilities, adequate silent space, group areas that are separate from the main spaces, and staff sufficiently knowledgeable about the collection, particularly e-resources, and their best use.

From the library perspective, a rather disappointing result was the extent to which postgraduate students seem not to be utilising the skills of the librarians when trying to satisfy their information needs. The situation of 85% of students not asking for subject advice from the staff in their library reflects findings of other studies of this kind of student, for example Kayango and Helm (2010).. Whether the students do not know that the staff are there to help with resource discovery and subject advice, or if they believe that by the time they are studying at postgraduate level they know how to find all the resources that they might need, the situation needs to be addressed.

Conclusions

It is often held that, in an academic library setting, information needs and behaviour are determined first by subject interest and second by status simply as learner or researcher. This study suggests that the situation is not quite so simple. Postgraduate students are different from others, in information terms, by virtue of the nature of postgraduate study.

In some ways, they seem to hark back to an older style of library use, with their preference for silent study space, enthusiasm for book borrowing, and distaste for the adoption of interactive software and social media. Yet, in their demands for IT

facilities, their assumption that the default for a resource is a digital format, and their disinclination to ask for the help of the library staff, they are clearly of the present age.

The messages of this study, albeit tentative because of its small-scale nature, are two-fold. Specifically, British university libraries should attend explicitly to the requirements of their postgraduate student users; not least because of the increasing economic importance of this group, particularly those from outside the UK. Generally, the library/information profession should seek to challenge common knowledge about, and simple categorisation of, their users; the truth is usually more complex, and more interesting. As Hegarty, Hayden and Foley (2009) put it, "Supposing is good, but finding out is better".

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