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Author(s)	Cox, John
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Positioning the academic library within the institution: a literature review

John Cox, University Librarian, Library, National University of Ireland Galway

Abstract

A strong position in the institution is vital for any academic library and affects its recognition, resourcing and prospects. Higher education institutions are experiencing radical change, driven by greater accountability, stronger competition and increased internationalisation. They prioritise student success, competitive research and global reputation. This has significant implications for library strategy, space, structures, partnerships and identity. Strategic responses include refocusing from collections to users, reorganising teams and roles, developing partnerships, and demonstrating value. Emphasis on student success and researcher productivity has generated learning commons buildings, converged service models, research data management services, digital scholarship engagement, and rebranding as partners. Repositioning is challenging, with the library no longer perceived as the heart of the campus but institutional leadership often holding traditional perceptions of its role. This review discusses literature on how academic libraries have been adapting, or might adapt, functionally, physically, strategically and organisationally to position themselves effectively within the institution.

Introduction

Appropriate positioning in the institution is vital for any academic library and is strongly linked to its recognition, resourcing and prospects. Close alignment with institutional strategy is key to successful positioning. Higher education institutions (HEIs) have been changing radically in recent years; this impacts the strategies they pursue and creates challenges of adaptation and alignment for libraries. Many operate more like businesses (Weaver, 2013), shaped by multiple drivers such as greater accountability, stronger competition for students and research funding, higher student expectations, internationalisation and challenging economic conditions. Some particular areas of institutional focus have emerged. These include student success, internationally recognised research, community engagement, global reputation and metrics-driven demonstration of impact. The influence of government policy globally (Adams Becker, Cummins, Davis, Freeman, & Hall Giesinger, 2017a) and nationally, as in the UK (Bulpitt, 2012), has been powerful in foregrounding performance measurement, competition and consumerisation. Technology has increased student choice and expectations and continues to transform how learning happens, emphasising greater flexibility, influencing learner behaviours and changing the profile of the student body (Bell, Dempsey, & Fister, 2015). It also affects profoundly the ways in which research is conducted by promoting more collaborative and computational approaches (McRostie, 2016).

Shifts in institutional operating environment and strategic focus have implications for the library and its positioning in the organisation. Traditionally the library was viewed as the heart of campus and there was an almost unquestioning acknowledgement of the centrality of its contribution to the institutional mission. This situation has now changed fundamentally and the onus rests with libraries to prove their worth to stakeholders who are asking different questions and seeking new value as their priorities evolve (Oakleaf, 2010). The environment for libraries has changed in lots of other ways. Many players are now involved in information management on campus (Dempsey, 2015). Academics and students can look to other providers locally and globally (Holmgren & Spencer, 2014). There are new expectations of student experience and engagement (Gwyer, 2015), researcher needs are changing (Corrall, 2014), and internationalisation has created new audiences (Anne R Kenney & Li, 2016).

All of this has significant implications for how libraries operate in their institutions in terms of strategy, space, structures, partnerships and identity. The manifestations of change are readily evident. They include learning commons buildings, research data management services, converged service models, new relationship manager posts, and branding of the library as partner. All feature in this literature review, as do the many challenges they present for academic libraries. Not surprisingly, there is a mix of experience, reflecting different priorities per institution and a diversity of proactive and reactive library engagement. The perspective of stakeholders certainly influences positioning and is highlighted early. The focus of this article is to review literature that discusses ways in which academic libraries have been adapting, or might adapt, functionally, physically, strategically and organisationally in order to position themselves effectively within their parent institution.

Literature Review Method and Structure

Due to the range of terminology, much of it quite general, associated with library positioning, the approach to surveying the literature involved browsing predominantly. A long list of possible terms was compiled, with some searches conducted using truncation of those that were more precise, for example positioning, alignment, prioritisation, partnership and restructuring. The focus was on literature in library and information science, recognising that in-depth coverage of library positioning was unlikely to be published elsewhere and would be referenced if significant. Reports from organisations covering higher education were, however, located. Publications included were mainly from the past five years and in English to keep the volume of literature reviewed manageable. The focus was on documents articulating or practically demonstrating institutional alignment and library adaptation or partnership. Publications describing only internal processes, or services developed without coverage of strategic context and impact in the institution, were excluded.

Current awareness services proved valuable, given the focus on recent literature and the need to browse. *The Informed Librarian Online* (https://www.informedlibrarian.com/) indexes 290 journals and newsletters worldwide and includes a section on Academic/Research Libraries. This was the main source but *Current Cites* (http://currentcites.org/) was also helpful. Searches of *Scopus* and *Google Scholar* yielded limited results due to the challenges already identified with the subject

terminology involved. Instead of searching other databases, the author browsed the websites and publication lists of organisations which regularly commission reports of interest. These included the Association of Research Libraries (ARL), the Association of College and Research Libraries (ACRL), OCLC, Ithaka, SCONUL, the New Media Consortium (NMC) and EDUCAUSE. Many new publications were also identified in bibliographies or lists of documents citing particularly relevant papers.

The literature survey undertaken has generated the structure of this article. It begins with an overview of stakeholder perspectives, recognising that the impressions formed by institutional leadership and academic staff will influence the positioning of the library. The next section reviews library strategic responses across a number of sub-themes: alignment; refocusing and rebranding; roles and structures; partnerships and identity; and demonstrating value and impact. The remaining sections represent a tightening of focus to student success and researcher productivity as two major goals for libraries and their parent institutions. Each is treated separately, highlighting new areas of action for library positioning in the institution, for example the adaptation of library space to engage students with learning, and new partnership roles in digital scholarship for innovative research. The article aims to offer evidence of positioning in action or of strategic thinking to guide practitioners as libraries and their parent institutions navigate ongoing change.

Theme 1. Stakeholder Perspectives

A mixed picture emerges from a study of recent literature regarding the perspectives of institutional stakeholders on academic libraries, raising some concerns around positioning. Publications on this topic had been rare for a time since 2010 but there has been an upsurge in recent activity. In general, there is a degree of recognition of the contribution of academic libraries, but this is somewhat limited and is often based on traditional views. Murray and Ireland (In press) surveyed US provosts, generating 209 responses. Participants saw the library as fairly involved in research productivity and student success but there was more limited recognition of its role in student retention and enrolment, two key objectives for HEIs. Connaway, Harvey, Kitzie, and Mikitish (2017) interviewed a group of fourteen provosts, some of whom explicitly sought stronger communication of library alignment with institutional goals and more collaboration across campus. Both groups tended to see library contributions passively in terms of space and collections rather than activities around information literacy and critical thinking. Robertson's (2015) interviews with nine Canadian provosts were more encouraging regarding the range of contributions but were again somewhat focused on collections and space.

The studies already mentioned indicated more credit for library contributions to teaching and learning than to research and this is true also of a literature review and study commissioned by SCONUL on "the view from above" (Baker & Allden, 2017a, 2017b). Furthermore, some indifference towards the library was evident, as it was generally seen as not a problem or a strategic concern. Some of the interviewees expressed a desire for librarians to participate beyond their own area and to work on solutions to university issues, not just those of the library. A subsequent SCONUL study raised concerns about insularity, incremental approaches to change and insufficient innovation

(Pinfield, Cox, & Rutter, 2017). A lack of interest in the library was mentioned and Melling and Weaver (2017) found further evidence of this in the poor awareness of senior administrators about library activities relevant to the UK Teaching Excellence Framework.

An Ithaka survey of US academic library directors, with 722 respondents, highlighted a growing dissonance between them and their supervisors (Wolff-Eisenberg, 2017). Fewer of them than in a similar 2013 survey shared a common vision and a smaller number of directors saw themselves as considered to be a member of the institution's senior leadership. Ithaka had also surveyed US academics in 2015 (Wolff-Eisenberg, Rod, & Schonfeld, 2016b) and a comparison of data showed that directors and academic staff had different views of the key role of the library. Eighty per cent of directors saw student success as their priority while only half of academics in this and a similar UK survey (Wolff-Eisenberg, Rod, & Schonfeld, 2016a) recognised that contribution by the library, although this figure was rising. Academics continue to prioritise collections and may need to be persuaded about new directions for libraries. Students, although expecting more as fees rise, may also see the role of libraries in an unchanged light (Delaney & Bates, 2015), due perhaps to a lack of awareness of services highlighted by over a third of library staff in a SCONUL survey (Pinfield et al., 2017).

Ineffective communications emerged as an issue for libraries. Only half of the US library directors surveyed by Ithaka believed that their library had clearly communicated its contribution to student success (Wolff-Eisenberg, 2017). Interviews with provosts highlighted not only the need for clearer communication of alignment but also identified issues around language used, notably "service" terminology (Connaway et al., 2017). A study of 63 library strategy documents showed explicit referencing of the institutional strategy as the exception rather than the norm (Saunders, 2016).

Summary

The perspective of institutional stakeholders matters in terms of the library's position in the organisation. Negative consequences are likely if stakeholders are not convinced of the library vision and strategy or are unaware of the library contribution to institutional priorities. These consequences may include less influence with leadership (Pinfield et al., 2017; Wolff-Eisenberg, 2017), a lower position in the hierarchy (Baker & Allden, 2017b) or a bundling with professional rather than academic services (Corrall, 2014). The library contribution may be overlooked (SCONUL, 2016) and this presents a serious challenge to effective positioning. However, the literature offers many examples of strategic responses by academic libraries, as described next.

Theme 2. Library Positioning Strategies

This section identifies some high-level, overarching strategies, applicable across the whole library mission. Some of these strategies recur in more detail in the sections on student success and

researcher productivity which follow but they are introduced here as significant for the overall positioning of the library.

Aligning and Leading

The literature provides descriptions of conscious strategic and organisational alignment by libraries with the priorities of their institutions in ways that are explicit, visible and desired rather than reactive or imposed. Examples include the University of Connecticut (Franklin, 2012), the University of Manchester (Jeal, 2014), and National University of Ireland Galway (J. Cox, 2017). A similar experience at the University of Leicester is described as "repositioning by doing" (Wynne, Dixon, Donohue, & Rowlands, 2016, p. 346). There is a strong emphasis on engagement with campus communities and stakeholders in these studies.

Pinfield, Cox and Rutter (2017) also uncovered a strong view that libraries should not just align reactively but should seek to provide leadership on campus where opportune, going beyond roles of service provider and partner. Opportunities for library leadership have been championed or successfully executed and described in the literature. Coverage includes library influencing of learning space development at UK universities (Appleton, Stevenson, & Boden, 2011; Matthews & Walton, 2014), identification of the library as a natural leader in improving digital literacy on campus (Adams Becker, Cummins, Davis, Freeman, & Hall Giesinger, 2017b), leadership of open access policy creation (Fruin & Sutton, 2016) and lead roles in a range of digital scholarship projects (MacKenzie & Martin, 2016).

Refocusing and Rebranding

Shifting institutional priorities, evolving technologies and changes in scholarly communication have called on libraries to refocus their value proposition, activities and brand. The unique selling point of the library has changed now that users either no longer need or can do for themselves what they previously relied on library staff to provide. Lewis (2016) urges an agenda based on what libraries can do either uniquely or better than any other unit on campus and to act before those opportunities are lost. There is a recognition that library services can be provided by others and that libraries need to prove that they can add specific value (Pinfield et al., 2017). Distinctiveness emerges as vital, necessitating a new agenda (Bell et al., 2015).

A common element in the literature about repositioning of academic libraries has been the change in emphasis from collections to users. Lorcan Dempsey (2016) has led the thinking around this shift by developing the concept of the "inside-out library". Formerly local collections are now part of a global networked collection to which libraries should contribute and share. Instead of acquiring material published elsewhere the library role should be focused on the curation and publication of learning and research materials uniquely created by their parent institutions. This emphasises the library as publisher, enabling new areas of focus with many implications for library positioning.

These include repurposing library space towards learning commons models (Blummer & Kenton, 2017), staking out new roles in research data management (Pinfield, Cox, & Smith, 2014), and promoting the international reach and reputation of the institution (Dempsey, 2016). Collections continue to be a key focus but in different ways and with a new attention towards archives and special collections as sources which are unique to their institutions and enable distinctive scholarship (Anderson, 2013).

Attention is shifting to fitting into user workflows and to emphasising the library in the life of the user (Connaway, 2015). Pinfield, Cox and Rutter (2017) have identified this and the inside-out library in a list of ten new paradigms for libraries which include the library as platform, the computational library and the globalised library. These paradigms are highly relevant to the rebranding of libraries. The concept of library as partner has also been strongly promoted (Eldridge, Fraser, Simmonds, & Smyth, 2016; Posner, 2013; Wynne et al., 2016), recognising that terminology such as service or support can be limiting (J. Cox, 2016). Asserting partnership does not, however, guarantee success and progress can be compromised by lack of buy-in from academics (Wolff-Eisenberg, 2017).

Reorganising Teams and Roles

A changing agenda needs appropriate staffing and the literature reflects thinking around new structures and emerging roles. The need for more flexible staffing models and a move away from rigid hierarchies towards stronger teamwork is recognised, given that a range of functional experts will often need to collaborate (Adams Becker et al., 2017b; Jaguszewski & Williams, 2013). There is a general shift towards stronger engagement with users and this is reflected in team structures. Corrall (2014) identifies a move away from the traditional reader/technical services model to a consistent grouping of teams among 24 UK libraries around five strategic areas: information resources, academic engagement, customer service, heritage collections, and digital technologies. An Ithaka study of organisational models at 20 US research libraries found a strong emphasis on building leadership teams around institutional priorities, with attention at all levels reoriented from internal affairs to engagement with the organisation at large (Schonfeld, 2016). Another trend, expanded upon later in this review, is greater investment in specialist posts to meet new needs and expectations, often for higher-level engagement than before (Wolff-Eisenberg, 2017). Increasing specialism impacts the composition of library teams, leading to more staff from other professional backgrounds and fewer staff at support grades (Gremmels, 2013).

The role of liaison librarians has received particular attention, with a move away from subject and collection emphasis and a thrust towards maximum outreach to the campus community. Jaguszewski and Williams (2013) advocate an engagement model for liaisons and this is a priority for the US research library directors interviewed by Ithaka (Schonfeld, 2016). There is evidence of increased emphasis in this direction in a group of UK libraries too (Eldridge et al., 2016). The University of Nottingham has prioritised relationship management roles within a Faculty and Engagement Team created in 2014 as part of a restructure, with team members seeking to engage at a strategic level to bridge the library with the academic community (Eldridge et al., 2016). There is an ongoing debate, explored more fully under researcher productivity, about deploying functional

instead of subject-based staffing models to satisfy new expectations, with some libraries motivated by a desire to signal radical change to their stakeholders (Hoodless & Pinfield, In Press). Challenges in reshaping staffing are also noted in the literature and these include skills and capacity issues (Auckland, 2012; Gremmels, 2013; Haddow & Mamtora, 2017), academic resistance (Gremmels, 2013; Hoodless & Pinfield, In Press) and tendencies towards silo working within libraries (Jaguszewski & Williams, 2013).

Collaborating but Maintaining Identity

Working more closely with others across the campus is another key strategy for academic libraries. Delaney and Bates (2015) see this as vital to an embedded and participative approach to institutional contribution by libraries, while Corrall (2014) uses the phrase "boundary-spanning activities" (p. 35) to describe partnerships essential to advancing research. Collaboration is the theme of a book in which library staff are urged to give up territory, recognise interdependencies and embrace ambiguity (Roberts & Esson, 2013) and to see themselves as being of the university first and of the library second (Melling, 2013). Greater institutional focus on student success, research impact and international reputation is bringing the library into closer alignment with a wider range of collaborators on campus, often resulting in new multi-professional partnerships (Pinfield et al., 2017).

These new alliances impact the position of libraries in their institutions. The role of library directors has expanded in some instances, especially at the head of converged student-facing services, drawing upon their experience of engagement across multiple constituencies and of managing technology-generated change (Bulpitt, 2012). They may also lead and coordinate digital education, research or digital scholarship (Schonfeld, 2016). Reporting relationships have changed, sometimes moving away from academic alignment. Corrall notes that the grouping of the library with professional services may mean that the library director reports to a chief operating officer, with advantages and disadvantages (Corrall, 2014). Partnership brings challenges too. A balance needs to be struck between cooperation and competition for resources (Pinfield et al., 2017). Loss of identity in larger multi-professional alliances is a significant risk. The library may lose its scholarly association through convergence with other services (Bulpitt, 2012). There is an increased blurring of boundaries with other units (Pinfield et al., 2017) and more staff from other professional backgrounds are working in library teams (Gwyer, 2015). Academic libraries therefore need to work at retaining their distinctive identity.

Communicating Value

It is important for academic libraries not only to identify themselves clearly with the value they provide to the institution but also to communicate this effectively. As noted in an earlier section, the library's changing contribution is not always well understood by stakeholders. There is a need to create and communicate systematically a compelling vision about the role and value of the library

(Pinfield et al., 2017). Wolff-Eisenberg (2017) found that experience was much more positive when a well-developed vision and strategy for the library was in place. The value communicated needs to be closely associated with the needs of the institution at large. Oakleaf's (2010) report and review on behalf of ACRL has been highly influential in this regard. This document puts the focus firmly on active linkage of library achievement to outcomes in ten areas of value to the institution, such as student enrolment and retention, research productivity and grants, and institutional reputation. A more recent study of academic library impact, also for ACRL, shows a similar emphasis and encourages libraries to ensure the incorporation of their data into institutional data collection systems (Connaway et al., 2017). The next section includes linkage of library value with student success.

Summary

Libraries are aligning more closely with institutional strategy, promoting themselves as partners and exercising leadership in some areas. Some of the traditional roles of the library have become less relevant, leading to a focus on adding new value and a heightened attention to appropriate branding. The shift in emphasis from collections to users has been a key driver of change, especially in the creation of different structures, teams and roles to deliver new functions. A more outward-facing approach towards the parent institution is evident and includes an increased appetite for partnership with other units on campus. Maintaining the unique identify of the library in the institution can be challenging and this puts a premium on promoting awareness of the library's evolving value proposition.

Theme 3. Positioning for Student Success

A strong focus on outcomes is reflected in the term student success which is commonly central to the institutional mission and linked to student expectations of employability (Adams Becker et al., 2017a). Higher student fees have promoted the view of students not only as customers (Weaver, 2013) but also as partners, with a stronger voice in decision-making (Melling, 2013). There is an increased focus on the student experience (Appleton et al., 2011), and greater scrutiny of the quality and value for money of services (Melling & Weaver, 2017). Tougher competition for students makes their retention vital and encourages internationalisation. Teaching is increasingly virtual, with learning more independent and located outside the classroom. All of these factors influence how libraries position themselves to contribute to student success.

Influencing the Student Journey

Libraries now need to understand the entirety of the student experience from recruitment to graduate employment (Weaver, 2013). Progression incorporates retention, the subject of a literature review by Oliveira (2017) which includes a section titled "Retention is the library's business too" (p. 314). Demonstrating a role in retention is important for academic libraries in their

institutions, and initiatives described in the literature include hosting of supports such as writing centres (Jackson, 2017), outreach to at-risk groups (Pagowsky & Hammond, 2012), and adapting space to promote collaborative learning (Oliveira, 2017) or to establish a family reading room (Godfrey et al., 2017). Allen's literature review (2014) summarises library effort but also partnership on retention. Weaver (2013) emphasises the need to work with many other units across campus to support retention and to facilitate the student journey, recognising that no unit has all the answers.

There have been many studies aiming to show linkage between strong library engagement by students and their success (Oliveira, 2017). Brown and Malenfant (2017) report positive findings from more than 200 ACRL Assessment in Action projects, particularly in terms of library instruction. Communicating such linkage to the institution is attractive but there are limitations. Library engagement is likely to be only a contributory factor (Allen, 2014), offering correlation rather than conclusive proof (Murray & Ireland, 2017). Deeper engagement with, and analysis of, data are seen as important to understand the student profile better (Weaver, 2013). Melling and Weaver (2017) argue that integration of data from library systems with other learning analytics may help to predict student outcomes. Their article on the UK Teaching Excellence Framework highlights both institutional ignorance of the library contribution to student learning and the need to redefine that contribution in areas such as access to open educational resources and linkage of information skills teaching to learning gain. There are also opportunities for closer engagement with employability (Tyrer, Ives, & Corke, 2013) and entrepreneurship initiatives on campus (Armann-Keown & Bolefski, 2017).

Joining Forces

Weaver (2013) has highlighted the importance of partnerships across campus to provide a holistic approach to student success. Recognition of the need to join up student support has generated new service configurations and convergences, with implications for the positioning of the library. Corrall (2014) notes a move away from the earlier convergence of libraries and IT units in a study of the 24 Russell Group universities in the UK but identifies a trend towards including the library with other, mainly student-facing, services in academic services directorates. The library is not merged with other units in these groupings, but a much closer relationship exists at some institutions under what has been termed superconvergence.

Superconvergence joins the library with a range of service departments, typically including student administration, student services, counselling, welfare, careers and others (Appleton, 2012). Bulpitt (2012) identifies support beyond the classroom as the common purpose of the constituent units and outlines a number of drivers, primarily to improve the student experience and to realise efficiencies for the institution. There is a focus on convenience for the student through physical co-location of services and library buildings are most commonly home to these one-stop shops, due in particular to their central location and long opening hours (Melling, 2013). Library professionals are often at the head of superconverged services, as shown in four case studies (Bulpitt, 2012). Multiple models are possible, and Appleton (2013) outlines examples ranging from simple co-location to full organisational convergence.

There are benefits and challenges in superconvergence for libraries (Appleton, 2013; Bulpitt, 2012). Hosting and leading a larger unit can enable stronger influence in the institution, positive association with student success and a more comprehensive service offering through sharing of expertise. Challenges include loss of library identity in both spatial and professional terms, new demands for leaders as well as for staff at service desks, and achievement of consistent standards.

Changing Spaces

Library space is being used differently to host other services but also in many other ways to enable new approaches to learning. A shift in emphasis from teaching to learning has occurred. Participation, interaction with other disciplines and independent learning beyond the lecture have all increased, as students embrace opportunities to take control of their own learning, becoming active co-creators rather than passive recipients. New approaches need new space and it is not surprising that the themes of rethinking library spaces and of patrons as creators feature, with examples of recent practice, in an international report of key trends for libraries (Adams Becker et al., 2017b).

Library leaders have recognised the need to adapt their buildings or create new ones with an emphasis on enabling learning rather than presenting paper collections. A survey of 72 US academic libraries has indicated an average footprint of 30% of available space for new facilities such as studios, labs and interactive environments (S. Brown, Bennett, Henson, & Valk, 2014). These spaces are created through strong collaboration with campus partners. Perspectives on, and case studies of, library space development, adaptation and sharing are presented in an edited collection by Matthews and Walton (2013). A book with the same editors includes international contributions about informal learning spaces in and beyond the library, highlighting the library's strong campus-wide influence (Walton & Matthews, 2017).

There are two other developments to note, Firstly, the learning commons has emerged as a building on some campuses. Its key components are ubiquitous technology, facilities for interaction and a diversity of spaces to meet preferred learning styles. These buildings may incorporate libraries or operate separately from them but are commonly under their management. Collaboration with a range of service providers is essential to their success, as Blummer and Kenton (2017) emphasise in a literature review of the evolution of the learning commons. Secondly, libraries are responding to the trend towards patrons as creators by establishing makerspaces. These spaces are emerging in significant numbers and respond to a growing maker culture, enabling fabrication of objects through 3-D printers and other technologies (Altman, Bernhardt, Horowitz, Lu, & Shapiro, 2015). They are seen as a natural fit for libraries (Adams Becker et al., 2017b), promoting creativity and entrepreneurship (Nichols, Melo, & Dewland, 2017).

Leading Digital Literacy

Libraries are repositioning themselves in the area of information literacy, already identified as important on the student journey and seen as a priority by library directors (Wolff-Eisenberg, 2017). Information literacy has involved library staff teaching students the skills needed to find, evaluate and use information. Librarians have largely done this on their own and have encountered difficulties in "infiltrating the curriculum" (Fister, 2015, p. 61). Cowan (2014) points out the limitations of exclusive library leadership of information literacy and the need to broaden its scope and ownership. This has been recognised in a reframing of information literacy as a metaliteracy which takes account of the new emphasis on creating, publishing and sharing digital information through participatory channels such as social media (Mackey & Jacobson, 2011). As a result, the creation of the ACRL *Framework for Information Literacy for Higher Education* (Association of College and Research Libraries, 2015) was informed by a need to expand the definition of information literacy to include multiple literacies. These include digital literacy, which incorporates dimensions such as content creation, communication, collaboration and responsible digital citizenship. All are captured in a strategic briefing from NMC that examines and synthesises multiple frameworks to define digital literacy in global and discipline-specific contexts which emphasise learners as creators (B. Alexander, Adams Becker, Cummins, & Hall Geisinger, 2017).

The increasing importance attached to digital literacy brings new opportunities for libraries on campus. Strong linkage to employability engages students and staff while the need to combat "fake news" places a premium on critical thinking and information literacy (B. Alexander et al., 2017). This offers the library a key role in developing digital literacy strategies and influencing curriculum design, with examples reported of this in practice (Adams Becker et al., 2017b; B. Alexander et al., 2017). Librarians are also playing important roles in the development of teaching and learning across the institution. Examples include participating in a multi-professional team at Coventry University to embed and sustain innovative teaching and learning programmes (MacKenzie, 2016), working outside the library on curriculum development and learning design at the University of Western Australia (Howard & Fitzgibbons, 2016), and influencing the development of more participatory courses at Purdue University (Jaguszewski & Williams, 2013).

Contributing to Internationalisation

Libraries are engaging with global and more culturally diverse audiences at home and abroad in order to align with campus internationalisation strategies. Their engagement encompasses a number of dimensions, including research, staff exchanges and participation in international projects, but the primary focus is on teaching and learning. The emphasis on internationalisation is increasing and Witt, Kutner and Cooper (2015) identify its drivers, while Bordonaro (2013) summarises its strategic components, including student recruitment, study abroad programmes and incorporation of international perspectives in the curriculum. Kenney and Li (2016) map the range of activities involved.

There is a definite sense in the literature that libraries have failed to keep up with campus internationalisation and have not done enough to position themselves as key players in the institutional agenda in this area. A study of institutional strategies in the US and Canada finds a striking absence of reference to libraries, with internationalisation similarly lacking in prominence in

library strategies (Bordonaro, 2013). Involvement in strategic planning is mixed according to a US survey, with the library focus often more operational than strategic and staffing support fragmented (Witt et al., 2015). The same survey found a significantly lower figure reported by US libraries regarding their level of international engagement than that reported by institutions in a separate national survey. A literature review finds inadequate library provision for study abroad programmes, despite some exceptions (Denda, 2013). More positively, the important role of an international branch library in accreditation, information literacy and creating community is reported (Green, 2013), along with the range of activities undertaken by library staff at New York University across its multiple international campuses (Pun, Collard, & Parrott, 2016). These include the creation of a post of Global Services Librarian to maximise collaboration with other institutional providers.

Overall, there is more that libraries can do to improve their positioning for internationalisation. This includes moving from a focus on collections to real engagement, rethinking structures towards better teamwork and a whole of library approach, deepening partnerships on campus, showcasing study abroad projects and experiences, promoting multiculturalism through events and exhibitions, and shifting the focus from challenges to benefits (Bordonaro, 2013; Denda, 2013; Anne R Kenney & Li, 2016).

Summary

The increased diversity and expectations of the student body, along with the trend towards independent learning on and beyond the campus, have changed the positioning of libraries. This is evident in new space deployments to promote interactive, creative and communal learning. Convergence with, and hosting of, other student-facing units have become commonplace. Libraries have extended their role in information literacy to embrace the inclusion of digital and other literacies as vital skills for student success and employability. Leadership roles for libraries in the institution have been a feature of these changes. Internationalisation is an exception and libraries have some ground to make up in this area.

Theme 4. Positioning for Researcher Productivity

Researchers today face increased change, competition and pressure to deliver impact and distinction for their institutions. Governments are strongly interested in research and funders want not only discovery but also dissemination. Advances in technology make research more data-intensive, collaborative and shareable. This has created a new scholarly communications environment, with a wider range of outputs prior to final publication (Adams Becker et al., 2017b) and a strong emphasis on open access to them. For libraries, this leads to stronger engagement with the process as well as the products of scholarship (Dempsey, 2016) and interaction with the whole research cycle (Maxwell, 2016). New positioning in the overlapping areas of digital scholarship, open publishing and research impact is becoming established, enabled by a strong emphasis on partnership and major changes in staffing.

Participating in Digital Scholarship

Digital scholarship is difficult to define and Martin (2016) devotes a number of pages to the task. At a simple level it is the application of digital technologies and content to enable new methods of enquiry, often involving large-scale manipulation of data (J. Cox, 2017). It encompasses digital humanities, computational research and open scholarship and is characterised by highly collaborative, interdisciplinary approaches, involving a range of parties (Anne et al., 2017).

Libraries are identified as key players in digital scholarship and there are good reasons for this. They include roles as connectors (L. Alexander, Case, Downing, Gomis, & Maslowski, 2014), a collaborative focus (Sinclair, 2014), archives and special collections as vital source material (Anderson, 2013), shared interests with the humanities in particular (Vandegrift & Varner, 2013) and a strong match of both librarian skills and technical infrastructures (J. Cox, 2016). Engagement with digital scholarship takes libraries well beyond digitisation. Mulligan (2016) identifies nineteen strands of activity, ranging from digital preservation and metadata creation to digital mapping and computational text analysis, as well as some areas such as interface design and database development which were previously more likely to be outsourced or done by other departments. His survey of US libraries shows activity in each of these domains across the 73 respondent institutions.

Alexander et al. (2014) highlight a diversity of activities at the University of Michigan and many more examples are evident in literature reviews by Cox (2016) and Martin (2016). The latter is included in a book edited by Mackenzie and Martin (2016) which contains many case studies. One of these describes the establishment of a digital scholarship centre at the University of Notre Dame (Bergstrom, 2016) and the benefits accruing to the Library from hosting and engaging with research across many disciplines. Other libraries have made space for such centres as an effective way of embedding their staff in digital scholarship (Lippincott & Goldenberg-Hart, 2014).

Different levels of library engagement with elements of digital scholarship are possible and MacKenzie (2016) identifies these as owner/user, partner, consultant or expert. Institutional models vary also, often depending on local factors, as outlined by Anne et al. (2017) whose four examples show library prominence in each case. Many libraries have positioned themselves as important participants in digital scholarship, emphasising partner roles as discussed later. There are challenges too. These include the requirements for new, often advanced, skills (Mulligan, 2016), sustainability as resourcing lags demand (Vinopal & McCormick, 2013), uncertainty around project scope or longevity (Posner, 2013), and communicating the library's role effectively to multiple stakeholders (J. Cox, 2016).

Publishing Research Outputs

The "inside-out" model was described earlier in terms of a growing role for libraries as publishers of institutionally-authored materials (Dempsey, 2016). Libraries have embraced this opportunity increasingly in recent years as open access gains traction and the scholarly record broadens in scope to include an increasing volume, diversity and complexity of content (Lavoie & Malpas, 2015). They have taken on new roles in curating and publishing institutional output, building on a keen interest in open access over more than a decade and an established role as managers of institutional repositories. Pinfield's (2015) literature review of developments in open access between 2010 and 2015 shows that it has become largely mainstreamed in that time, embracing growing numbers of publications and engaging the attention of institutions as a whole, not just libraries. This has been stimulated by an increase in the number of policies from funders and HEIs, mandating that research outputs should be openly available.

Libraries have played a leading role in the creation of these policies and in advocating their full implementation on campus (Fruin & Sutton, 2016). Open access is complex in terms of licencing, embargoes, deposit options and Green and Gold models, reflecting what Pinfield describes as "mandate messiness" (Pinfield, 2015, p. 616), and the expertise that libraries can offer is highly valued. Libraries are therefore involved in more than just publishing outputs and their role in interpreting requirements and administering compliance has expanded in the UK in particular, due to two recently introduced requirements. These are the funding of Gold open access following the Finch Report in 2013 and the stipulation that publications submitted to the national Research Excellence Framework should be openly accessible via a repository. This has involved libraries in close collaboration with research offices and others in a range of work around policies, cost management, workflows and advocacy (DeGroff, 2016). There is also a requirement for better integration of, and interoperability between, library repositories and institutional research management systems (Adams Becker et al., 2017b).

Pinfield (2015) observes that libraries engage with other open agendas, most notably open data. Funders are extending their requirement for openness to the curation and publication of data generated by the research they support. This and other drivers (Bryant, Lavoie, & Malpas, 2017b; A. M. Cox, Kennan, Lyon, & Pinfield, 2017), including societal benefits and research reproducibility, have generated a new focus on research data as a valuable asset to be managed and shared. Librarians have skills relevant to research data management and are working closely with others on campus, notably research offices and IT units (Bryant, Lavoie, & Malpas, 2017a). In doing so they face some challenges similar to those encountered with open access to publications, including difficulties in securing institutional commitment and a lack of clarity around the responsibility of different stakeholders (Pinfield et al., 2014; Tenopir et al., 2017).

Research data management is complex and has technical, policy and legal dimensions, in addition to variations in practice among disciplines. Libraries have been working out their level of involvement, influenced by local circumstances and available capacity. One study identifies three levels of engagement: education, expertise and curation (Bryant, Lavoie, et al., 2017b). Investigations of research data services in practice reveal variations in provision (Hudson-Vitale et al., 2017), but with a clear trend towards advisory rather than technical roles (A. M. Cox et al., 2017; Tenopir et al., 2017). Four case studies show a range of institutional models but strong library roles in each case (Bryant, Lavoie, et al., 2017a). There is, furthermore, a strong recognition by library directors of the

importance of research data management, not only for future scholarship but also for the relevance of libraries to research (Tenopir et al., 2017).

A further engagement with publishing relates to closer relationships with university presses, ranging from the press reporting to the library to full integration with it (Bonn & Furlough, 2015). Libraries' experience with open access publishing has contributed to this, and university presses, although undergoing revival and growth (Adema & Stone, 2017), are perceived as having something to gain from library innovation, agility and experimentation (Bonn & Furlough, 2015; Okerson & Holzman, 2015). This further aligns libraries with institutions' desire to publish and spread their reputation and may be seen as additional evidence of library repositioning in the research cycle from a less unique role in discovery than previously to a valued one in publishing now (Bonn & Furlough, 2015).

Promoting Reputation and Impact

HEIs pay strong attention to their reputation and impact, recognising the importance of their global ranking in a highly competitive research environment. Research outputs are increasingly measured according to their impact which is assessed through a range of metrics, including the number and quality of citations they attract. This is of interest to funders as well as parent institutions. The publication by libraries of institutional research content is relevant in terms of greater global exposure and opportunities for citation. Libraries engage with reputation and impact in other ways too, partnering to capture and measure research activity and outcomes through research information management systems (Bryant, Clements, et al., 2017).

These systems track details of researcher expertise, outputs, grants, projects and collaborations, informing decision-making, enabling benchmarking and reporting impact. The partnerships and systems dependencies they require across campus are well mapped by Bryant et al. (2017), as are the contribution and unique expertise of the library in areas such as scholarly communications, discoverability, training on how to increase impact, and preservation for long-term access.
By engaging with these systems and their stakeholders, libraries are able to promote open access and the repositories they manage (Givens, Macklin, & Mangiafico, 2017). Librarians have played leadership roles in the scoping or implementation of research management and profiling systems at a number of institutions (Day, 2018; Givens et al., 2017).

Measuring impact through bibliometric analysis and promoting the use of altmetrics has also been a growing area of library activity, stimulated by national research evaluation exercises, and generating challenges in terms of the specialist skills required (Haddow & Mamtora, 2017). A survey of 79 ARL institutions reports a diversity of library engagement with scholarly output assessment, extending well beyond citation counts and encompassing strategies to promote researcher impact in partnership with research offices and institutional research units (R. Lewis, Sarli, & Suiter, 2015). Libraries can also use their trusted status to advantage to act as honest brokers with academics who may distrust the motives of other parties on campus in measuring their impact (Givens et al., 2017).

Partnering More Than Supporting

The importance of working closely with others on campus for researcher productivity is evident and libraries have positioned themselves as willing and effective partners. Key collaborators for open access, research data management, publishing and maximising impact include the research office, IT unit, university press and academic staff. Dempsey (2015) notes the need for the library to position itself as advocate and partner, while Corrall (2014) sees operational convergence among partners as "arguably more prevalent than ever" (p. 37). These relationships can be challenging, however. A jurisdictional issue has been identified around research data management, in which libraries may meet scepticism from others in trying to frame a coherent agenda within the institution (Pinfield et al., 2014). The prevailing research environment on campus and the receptiveness or otherwise of the research office and of academics can influence the extent of the library's role (Haddow & Mamtora, 2017).

Libraries, as noted earlier, are branding themselves as partners with researchers, shifting away from traditional roles of service or support. This is particularly the case for digital scholarship and the concept of libraries as partners is often forcibly argued in light of their active participation in, and strong contributions to, this area (L. Alexander et al., 2014; Posner, 2013; Vandegrift & Varner, 2013). Examples of strong, deep and successful embedding in digital scholarship communities are reported, with libraries taking very enterprising and valued roles (MacKenzie & Martin, 2016; McRostie, 2016; Sinclair, 2014). This is not always the case and Vandegrift and Varner (2013) cite timidity and an academic inferiority complex as issues for libraries. Other barriers can be a lack of recognition of the library role (Posner, 2013) or failures by librarians to understand what academics need (Groenewegen, 2017).

Staffing for Research

Evolving interaction with research has taken libraries into different territory and this has generated new staffing roles and structures. Corrall (2014) identifies "higher-end" (p. 19) engagement, resulting in an expansion of specialist positions for areas such as open access and research data management as well as the establishment of new scholarly communications teams. She notes that a third of senior management posts in her sample have "research" in their title and half of these leadership teams have special collections or archives as a distinct role. Cox (2017) sees digital scholarship as generating a further radical shift, evident in the results of a survey of 73 US libraries which indicates a substantial growth in multi-professional teams, non-librarian posts and the recent creation of many new posts, often at senior grades (Mulligan, 2016). Research data management has also stimulated staffing changes, with over 40% of European libraries surveyed either having created new posts for this purpose or planning to do so (Tenopir et al., 2017), although another study found less organisational change than expected (A. M. Cox et al., 2017). The literature reports significant

restructuring to strengthen research engagement, often with a distinctive emphasis per institution (J. Cox, 2017; McRostie, 2016; Wynne et al., 2016).

The issue of whether to organise staffing for research around subject or functional teams has emerged as a particular topic of debate. The approach at many institutions has been to graft new roles in areas such as open access, bibliometrics and research impact onto existing subject or liaison librarian roles, but the feasibility of this has been questioned (Jaguszewski & Williams, 2013; Anne R Kenney, 2014). Others argue that increasingly specialist skills requirements and interdisciplinarity approaches to research make the subject librarian model less effective, calling for a more radical structural adaptation which results in the creation of functional teams focused on research. The debate is well summarised by Hoodless and Pinfield (Hoodless & Pinfield, In Press). They describe the rationale, drivers and models involved, as well as the outcomes for the functional approach which include an improved profile in the institution and better linkage with non-academic units such as the research office, but a risk of less close relationships with academic staff.

Any move away from the established subject model represents a big step and experience of this is reported for a number of institutions (Bains, 2013; J. Cox, 2017; Wynne et al., 2016). The most common approach is a mix of both models but with a changing balance towards functional organisation (Hoodless & Pinfield, In Press). Major recent changes in the liaison librarian role were reported by 75% of respondents to a survey of US libraries in which 70 institutions participated (Miller & Pressley, 2015), and these adaptations are ongoing (Church-Duran, 2017).

Summary

Academic libraries are operating at a higher level of specialism to meet new expectations from researchers, funders and their parent institutions. Digital scholarship has opened up new roles and partnerships, leveraging library skills in preservation, description and dissemination. The publishing role of libraries has become more prominent in expanding open access to research outputs, including data as well as publications. This has positioned libraries well in helping their institutions to maximise and measure the impact of their research, enhancing international reputation. Partnership with academic staff, research offices and others is key but can be challenging as needs and roles evolve. Major shifts in library staffing for research are taking place, resulting in specialist roles which may not be filled by librarians, and organisational structures which replace subject librarians with functional experts.

Conclusion

Academic library positioning and repositioning within the institution has occurred across many fronts. It has been made more challenging by the many changes experienced by parent institutions which have therefore become moving targets. The shifting higher education environment has impacted the library as much as its parent organisation. New approaches to learning and research necessitate different roles for libraries if they are to be relevant to the institutional mission. Some

common threads have emerged to drive new positioning. Foremost is the emphasis on partnerships across campus, recognising that more can be achieved together and that isolation risks marginalisation. Libraries are more outward looking and keen to share space, infrastructure and expertise, committing themselves to alignment around institutional priorities. The shift in focus from collections to users has stimulated major changes in the way library space is presented as an enabler of interactive learning. That shift has in turn moved the deployment of staffing towards stronger engagement with academic staff, students and campus partners. The library as publisher has promoted digital scholarship and the international reputation of the institution for research.

Libraries have repositioned themselves, but have perceptions of them changed in their organisations? The answer is not clear-cut. This review has noted divergences from institutional leadership and academics, a loss of position at the heart of the campus, and a tendency for libraries to be taken for granted. Communication appears to be an issue and more work needs to be done to capture scarce attention in busy institutions and to pit the new library agenda against traditional perceptions of its contribution. Selling that contribution in terms of what the institution values is important if new roles and partnerships in advancing the academic mission are to be recognised and appreciated. A balance may need to be struck between being a good partner and maintaining a distinctive identity, claiming credit where it is due so that repositioning results in advancement rather than loss of status on campus. Opportunities to lead exist and are being realised in areas such as digital literacy, open access, research data management and digital scholarship. Dynamic, engaged alignment with organisational priorities is key, and this literature review has highlighted committed practice by libraries to reposition themselves successfully in the institution.

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