Libraries and research support in small and teaching-led universities

Contextual problems around nascent services in dynamic times

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Introduction

In recent years many academic libraries have been developing research support services. Much of this has emerged in response to the increasing demands and mandates of research funders to manage research data more effectively and to make research publications openly available through either gold or green open access (OA). The exciting prospect of helping to transform research practices by ensuring that there is transparency, accountability and reproducibility has also demonstrated a number of complexities and problems for research support services. In this paper we shall discuss some of the challenges and opportunities for libraries to engage substantively in developing research support services for their higher educational institutions (HEIs) and the wider communities they serve.

It seems reasonable to state that the volatile political and economic environments in the UK that contemporary HEIs currently operate in are likely to be with us for the immediate future. The Office for Students (OfS) is a public body that will regulate the 'market' of higher education in place of the Higher Education Funding Council for England (HEFCE) and the Office for Fair Access (OFFA). The OfS is likely to bring about significant changes to the landscape of higher education in England, thus adding to existing pressures. Such changes are not new. As McGettigan (2013, p. 1) notes: the government is not simply implementing sweeping amendments 'driven by temporary difficulties; […] rather] austerity is the occasion which makes the prominent changes more acceptable politically: "there is no alternative". This volatility can be seen as a part of a governmental continuum, which means that universities and their library services are facing greater uncertainty in the immediate and mid-term future.

A range of instruments have been and are being implemented by the Government in order to support its agenda for higher education and research. The recent introduction of the Teaching Excellence Framework (TEF), the metricisation of universities and the impact of this upon student recruitment are significant for HEI libraries. Adapting to this financially insecure environment is already a significant challenge for all UK universities, as is budgetary planning for library services. The exit of the UK from the EU will add further uncertainty. The impact of these variables on smaller and teaching-led institutions, which have fewer and less diverse income streams, is even greater.

While these changes are occurring, many smaller and teaching-led HEIs are developing their research strategies and growing postgraduate research programmes. Such initiatives are often instigated to develop an institution's profile, and are often intended to give greater stability and offer broader scope for these HEIs. In this context we can broadly understand research as 'the pursuit […] of knowledge and truth within an ethical and democratic institution' (Budd, 2009, p. 5). Libraries have been key stakeholders in driving compliance with aspects of this work by assisting with funder OA policies, devising and leading research data management (RDM) practice and developing good practice around the technical architecture of contemporary research and scholarly communications processes. The wider context needs to be examined in order to assess how libraries can support the development of research, and whether this support is sustainable.

Development of library services for research support

Libraries have offered skills and knowledge to assist their institutions with the significant challenges posed by problems that are 'highly resistant to resolution' (Australian Public Service Commission, 2007). These 'wicked problems [exist] because of the greater interconnectedness of organisations and processes in a globalising world' (Awre *et al.*, 2016). As libraries span all the HEIs' core activities, intersecting with teaching, learning and research activities as a core service, this point of contact with stakeholders offers them a

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unique range of access points to problems and solutions, which also reinforce a library's awareness of the multiple functions and needs of users. Currently this is particularly significant due to the increased importance of the National Student Survey (NSS), TEF, league tables and other statistical methods of 'measuring' a library service's contribution to institutional success.

The primacy of the Research Excellence Framework (REF) exercise in the minds of research support staff and senior academic managers means the focus on funder OA mandates can slow down the progress of, for example, the RDM agenda, which is much more nuanced than OA, requiring locally coherent agendas that consider the various 'influencing factors' (Pinfield, *et al.*, 2014, p. 18). However, some of the processes deployed by libraries to fulfil OA requirements (advocacy, multi-stakeholder collaboration, repositories, etc.) could be transferable to RDM workflows. It is important to be clear that OA does not equal open data or data sharing: there is a danger that these can be conflated, as the same library team, or even individual, is often responsible for both OA and RDM at an institution (Pinfield, *et al.*, 2014). Conflating access to publications and research data is likely to add further resistance from researchers who need to protect their data for valid reasons, such as the protecting the privacy of participants.

Given the small budget available to libraries for developing, curating and maintaining library resources for research support and their relative inexperience in some detailed aspects of research activity, the challenges for small and teaching-led HEIs for developing research support services are significant.

Challenges

Research culture

Research has always been a core function of academe. However, the distinct histories of UK HEIs have produced an unequal distribution of research activity across the sector. The historic universities of Oxford, Cambridge and the red brick universities of the 19th and early 20th centuries dominate research activity, with the 24 Russell Group institutions receiving 77% of the total RCUK funding in 2015–16 (Russell Group, 2016).

This distribution of research funding has created a patchwork of research activity across institutions. At the smaller and teaching-led institutions, there are often pockets of research specialities and excellence, but this work often takes places on the margins of the academics' workload. Because it is rarely sufficiently accounted for in a university's workload planning, its marginal status tends to persist in smaller HEIs. In addition, the wider political climate has foisted 'complex labor processes, human hierarchies, discipline, sometimes bizarre management regimes of control and motivation, conflict, weariness, and often suffering' (Willis, 1999, p. 142) upon some academic staff.

By its very nature, research is a complex task requiring time, planning, experience and access to various resources. Kuhn (1970) notes that this type of scholarly activity can be led by 'a new paradigm [where scholars] adopt new instruments and look in new places… [and] see new and different things when looking with familiar instruments in places they have looked before' (p. 111). This framing of research implies recursive cycles of activity, which overlap discursively and eventually contribute to knowledge within a discourse (Foucault, 1972). This is significant because the emphasis is moved away from individual researchers to the wider social and cultural context from which the research itself emerges.

Fostering positive and active research cultures is a difficult challenge for smaller institutions as a result of institutional marginalisation of the contemporary research environment. Libraries often give support for compliance with HEFCE, RCUK and Wellcome Trust policies, for example, and with other emerging

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research data policies. However, the library is often not represented during the relevant decision-making processes.

Experience, skills, and responsibility

A library's difficulties in managing the administration of research and scholarly communications stem partly from a deficit in experience and resources and partly from its place within a deeply hierarchical structure, where 'the rigid structures are pervasive [and] these structures in turn set a precedent for how our library services engage with our readers, patrons, or users. They enforce behaviours and condition us' (Sanders, 2016). As library workers are regarded as part of professional services rather than faculty, their access to the decision makers may be insufficient to persuade academics to buy into the open scholarship agenda and related better practices. The proliferation of professional managers and administrators across the HEI may make explaining research processes, their costs for the library and the digital dissemination of output under an appropriate licence more difficult for colleagues who do not have a research background.

Libraries and research offices have taken the lead in RDM policy development, involving various groups of stakeholders in the implementation and governance of services (Cox *et al.*, 2017). The logic behind this can and should be scrutinised, and questions around the premise that the academic library is the most appropriate home for research data services (RDS) need to be fully considered. The coordination of disparate institutional functions – such as the library, research office and IT –towards designing and implementing a comprehensive RDM service that coherently meets the needs of the institution has to take into account a multitude of working cultures and practices. Flexibility around strategy and decision-making could be advantageous: a small HEI might indeed consider itself well placed to achieve this, as long as there is commitment from senior figures in the institution and an understanding of research. As Knight (2015, p. 425) identifies with regard to the London School of Hygiene and Tropical Medicine, '[t]he institutional environment has a significant influence upon the approach taken to provide Research Data Management Services within the institution'.

In this relatively new area of development for academic libraries, library managers' views of RDS practices in their service may be at odds with the perceptions of library workers themselves – 'more library directors believe they offer opportunities for staff to develop RDS-related skills than the percentage of librarians who perceive such opportunities to be available' (Tenopir *et al.*, 2014, p. 84). This may be exacerbated as 'most LIS professionals do not necessarily have a personal knowledge of research; another difficulty is simply the lack of knowledge of the extent of the issues, since they relate to the work of every researcher in an institution, but disciplinary and sub-disciplinary differences make generalisations about data practices very hard.' (Cox *et al.*, 2014, p. 43.) This lack of familiarity with research practices across disciplinary divides is a highly significant challenge for those supporting research.

Research support and subject librarianship

Burke (1974) conceived research as a conversation in a parlour between various researchers over time. However, there is a risk of libraries not fitting in to this view. Academic liaison and / or subject librarians regularly discuss resources for taught courses and delivering information literacy sessions. In the case of research support, it is important to ensure all library workers have the necessary skills and experience, while the ability of the researcher to identify the relevant library worker is also clearly relevant.

It is important for library workers to help researchers to be aware of alternative publication methods, how to use repositories and how to select appropriate licensing options (Lawson *et al.*, 2015). The potential extension of information

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literacy into research support highlights that the different aspects of library service provision are not in competition with one another, but can open a space for collaboration and synthesis. This approach helps to unite the disparate services of supporting teaching and learning and supporting research. Developing a critical approach to research and scholarly communications practices aims to 'avoid assumptions of a reductive liberal individualism at its root and take into account the unavoidable constitutive aspects of relations with others, discourses, and social context' (Nicholas, 2012, p. 243). However, in the institutional context, professional services often function as passive institutional conduits: when professional services take on active roles in the domain of research and scholarly communication, certain social constructs and hierarchies are challenged. There is a clear need for sensitive planning.

Resources

The budget for library resources has commonly been devised around the need to provide resources to support taught courses, increasingly through reading-list software solutions such as Talis or Leganto. This is perfectly sensible in that it helps to create a link between the lecturer and the library, yet it can have unforeseen consequences when researchers use the literature purchased or subscribed to from budgets designed for teaching and learning; in practice, the provision of information resources for research activity is parasitic.

In the past, when research was not accounted for as a distinct activity by the library, there was a reasonably symbiotic relationship between teaching and learning and research functions. As HEIs want to develop their research portfolios, it can prove difficult to develop a strategy to increase budgets to account for an expansion of research collections, as this represents a new cost. In the realm of journal bundles and Big Deals, this is particularly challenging: clarifying what is a 'research' cost and what is a 'teaching and learning' cost is, at best, an unwieldy and possibly arbitrary process.

Failing to reflect any planned growth in research and postgraduate cohorts in the budget might prove politically naive, as libraries are inherently political (Jaeger & Sarin, 2016) and would benefit from demonstrating the political economy of institutional activities in order to provide transparency and accountability, and to enable more streamlined planning in the future. With budgets under strain, appearing to do more with less plays into a dangerous neoliberal narrative that normalises budget decreases and provides evidence that libraries can still operate when they are underfunded. Given the volatility that tuition fees and student numbers have brought to the sector, the library's support of research activity through information resources from scarce and dynamic sources is likely not only to prove difficult to sustain, but also difficult to map to research activity through anonymised usage statistics.

This is not an exhaustive list of the challenges that face research support for small and teaching-led HEIs, but it does indicate the level of complexity and nuance that such institutions and libraries face.

Opportunities

Sharing expertise across communities

Given the shortage of local experience in supporting research and detailed knowledge of the current funder mandates for RDM and OA, the importance of communicating with those who do have that experience cannot be overstated. There are many highly active professional communities that intersect around technological developments to support scholarly communications, OA administration, publication, repositories, research data management and preservation. In addition, mailing lists address a gamut of issues and challenges facing those engaged in research support. There are regular local, regional and national meetings around specific aspects of research support such as

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RDM and repository development, regular blogs, continuous social media descriptions, commentary and analysis. The engaged and open sharing of collective experience significantly mobilises the community to enhance the administration and scholarly practices at local institutions.

Engaging in trans-institutional groups allows participants to absorb some of the experience gained through coordinated, pan-departmental engagement in research support. It is essential to share the complex nexus – that is still growing – that research support offers. A library service cannot possibly drive cultural change towards full open scholarly practice, mandate compliance, technical implementation, training, advocacy, output and data repository maintenance, etc. And neither should we. Working in partnership with the other related departments, using their skills and expertise to forward the institutional and scholarly advancement that research support offers, opens this dynamic area to the stakeholders who can help to share responsibility and craft a sustainable, transparent and accountable system for research and research management.

Embed processes in policy and procedure

Developing and embedding policies in practice requires research support to identify the most appropriate points of access to institutional power. This is necessary to implement positive and productive strategic changes in support of research in collaboration with senior colleagues. Interacting with decision-making power can help to enhance open practices so that individuals are able to influence ethical decision-making processes positively (Trevino, 1986). An example of this can come at research ethics sub-committees. Ensuring that Data Management Plans are within the standard processes, and by making explicit reference to the storage and preservation aspects of research data, the institution will reinforce better practices of transparency desired by research funders and by communities outside academe. Using some of the institution's apparatus and acquiring the buy-in of the senior members of the research community who administer this power will help to foster stronger reputations for individual researchers who follow the amended procedures, and for the institution that has implemented them to effect positive change.

Minimising coercion through mandates is essential. Whilst they have proven effective in increasing the volume of OA material that is available, mandates can disguise the very positive attributes that open scholarly practices offer, and there is a 'risk that [Open Access] becomes perceived as a pointless bureaucratic exercise' (Tate, 2016, p. 114). Finding ways to incentivise engagement with contemporary scholarly practices is important. If a researcher actively chooses to do their research in an improved manner with regard to Open Access, the change is not merely a process of administrative compliance but represents engagement with the underlying issues. Developing good professional relationships with researchers and research coordinators who are on research committees helps to ensure that academics engage in open scholarly practices of their own volition. If research support is to help move academic culture beyond the environment of existing conditions, which are unsustainable for HEIs, this seems essential. The enhancement of research practices supported by library interventions helps academics and the institution in general to make contemporary practices part of a new commons and a public good that engages audiences beyond academe, rather than merely administering research outputs as a funding requirement.

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Change as a continuum

Deviating from the historical processes challenges the status quo and can create tensions. We must emphasise that the status quo is not neutral. In much the same way that the development of journals affected researcher behaviour and processes, that 'two-way interaction is set to continue as new technology and the shifting priorities of research funders allow new iterations of a centuries old tradition' (Prosser, 2013, p.49, our italics). Although change may be slow, it is a process that researchers have always been a part of.

The common conflation of related but discrete areas, such as OA and open data, could also contribute to faculty questioning whether academic freedom is being infringed. Although funder mandates have helped to drive the OA movement in universities, there is a complex internal and external regulatory environment to comply with, and institutional policy and practice could be perceived purely as tools of the REF, rather than enhancing a culture of good research. As Johnston (2017, p. 14) points out, 'Not all OA policies are created equal in terms of their potential tensions with academic freedom. Academic freedom itself is complex in nature and includes aspects of negative liberty or freedom from external constraints and positive liberty or individual autonomy.' Devising OA and RDM policy requires an understanding of, and empathy for, academic freedom. In small or less research-intensive institutions, funder mandates may have a less direct impact, but may still influence policy either aspirationally or by replicating what is seen as good / accepted practice: the primary challenge is not so much achieving compliance, but rather the cultural change that would facilitate that.

Anecdotally, there seems to have been significantly smoother progress of open scholarly praxes with PhD candidates and Early Career Researchers (ECR), who may be less entwined in the systems and practices that legacy scholarly communications systems are based upon. Liaising closely with PhD candidates and ECRs can yield faster and more positive results as these researchers are more enthusiastic about using pre-print repositories, seeing data as a research output and complying with institutional policies regarding use of the repository. However, progress needs to be and can be made across all researchers, all of whom are likely to feel some pressure to support the status quo; using legacy models of scholarly publishing is often thought of as the easiest way to develop one's academic career and reputation. However, the newer models of pre-prints and open data sharing are proving fruitful for some newer academics in various fields, and library research support services can demonstrate and share the successes that have come from working towards alternative forms of scholarly participation.

Costing progress

For library workers, it can be important to remember that our support of research is still embryonic (Cox *et al.*, 2014). A significant part of the challenge is supporting the growth of research capacity, software and systems required to meet the researchers' needs. Demonstrating that additional research activity will require additional funding for resources and systems is relatively simple, but appealing to senior management and administrators who work outside research support and the library can be a significant challenge. The misconceptions around web-based access to scholarly information and resources can be a significant barrier, but the fact remains that increased funding is an essential facet of developing research.

It is essential to cost the resources that support research growth and ask for such costings to be considered during the planning of research centres and PhD programmes. This will help to build the case for increasing library funding in order to support proactively a growing research corpus. Some material difficulties can be overcome by sharing our concerns across all affected services. Developing effective partnerships and working practices with, for

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example, the Research Office, can help to resolve complex operational problems in the processing of data and managing research grant applications, and can help to make the case for enhanced funding for research infrastructure, such as a current research information system (CRIS). Ultimately, senior management need to understand that the cost of developing research activity requires ongoing financial and political support.

Research support redux?

The complexity of research support, even in small institutions, means that a greater range of services is required at various stages of the research lifecycle. However, the necessary skills are not consistently available (Cox *et al.*, 2017). The burden of delivering such a diverse set of services often falls upon individuals or very small teams. The Digital Curation Centre (Whyte, 2015) found that two thirds of institutions had less than one full-time equivalent allocated to RDM, with a marked gap in staff provision between 'research income rich' and 'research income poor' institutions: the most financially secure third expect to have almost three times the support of the poorest third.

The effectiveness of advocacy and advisory services is curtailed when one dedicated RDM staff member needs to tailor their approach to a range of discipline-specific milieux, which has consequences for researcher engagement. There is a reliance on external sources for increasing library practitioners' skills in RDM, for example through conferences, workshops, webinars and so forth (Cox *et al.*, 2017). For small or specialist institutions, collaboration with peers on centralised or shared services might be a solution for delivery of technical infrastructure and systems. Efficiencies, knowledge-sharing and economies of scale could be leveraged more easily than individual innovation alone to reach service maturity, especially as small universities are under pressure to show that investment in infrastructure is allocated in the right places (Knight, 2015).

Conclusion

There are significant barriers to libraries at smaller and teaching-led HEIs effectively supporting research. The wider political and economic pressures should be given greater prominence in the context of libraries, and in particular with regard to their impact on research support.

The insular operational cultures and practices that have evolved across HEIs, including libraries, require positive development and enhancement in line with the publicly accountable and democratic principles they extol. In a dynamic and challenging political environment, collaboration between various support members and teams is not only expedient but essential to bringing together the necessary skill sets from across the library community.

The challenges around culture, budget, skills and labour can be resolved only through open, direct and honest participation in a dialogue that aims to foster meaningful solutions to the issues affecting research and research support. This will provide a greater opportunity for libraries to contribute positively towards the growing research agenda for small and teaching-led HEIs. Furthermore, dialogue can aim to create greater stability for the parent institution as we move towards future challenges for research and higher education in the UK.

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