

Collaboration or Competition? Responses to Research Data Management in UK Higher Education by Librarians, IT Professionals, and Research Administrators

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Abstract

Purpose. Effective Research Data Management (RDM) has become an increasing concern in UK universities as a result of being mandated by research funders. The study uncovered how librarians, IT staff and research administrators viewed support of RDM and how they thought roles would be distributed amongst them. It used Abbott's theory of the professions as a way of conceptualising the underlying dynamics.

Methodology: Data was collected through 20 semi-structured interviews with staff in the Library, IT Services and Research Office of a research intensive university of middling size in Northern England.

Findings: The different professional services viewed RDM differently. Broadly speaking, IT focussed on short term data storage; the research office on compliance and research quality; librarians on preservation and advocacy. The Library was the only department claiming a new jurisdiction in RDM. The other departments claimed to be short of resources to take on such a complex project. Some interviewees feared RDM might be a "poisoned chalice".

Research implications: Abbott's (1988) concept of jurisdiction is a useful lens on how RDM services are emerging.

Originality/value: The paper offers an early perspective on how support of RDM is being developed, from a theory of the professions perspective.

Keywords: research data management, support of research, academic libraries, IT services, research administration, professions, system of professions

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1 Introduction

Increasing recognition of the value, volume, velocity, variety and vulnerability of research data has led funders in the UK to mandate better research data management (RDM) (RCUK 2011; Pryor 2012). Many people believe open data is key to research quality and scientific progress (Royal Society 2012), this also implies the need for better management of data. Research funding applications now require data management plans. A critical event in raising the RDM agenda in the UK was Engineering and Physical Sciences Research Council (EPSRC) asking all UK Higher Education Institutions (HEIs) to formulate a roadmap outlining how they would comply with the new RDM requirements by May 2012 and fully comply by May 2015. Critically, the funders place the responsibility for RDM on researchers and their institutions (Jones et al. 2013). Indeed, evidence, such as recent surveys (e.g. Cox and Pinfield, 2013; Corral et al., 2013), suggest that in the UK academic libraries are taking on or planning a range of roles in RDM, as part of a wider movement to offer more support to research in general (Auckland 2012). Roles have been identified in the areas of policy; advice and signposting; training; auditing of research assets and creation of institutional data repositories (Corral, 2012; Cox et al., 2012; Lyon, 2012; Lewis, 2010; Gabridge, 2009). This work could be spread across a number of library teams: e.g. the liaison team, metadata specialists, special collections and systems.

Yet it is also clear that a number of other professional services will be involved in supporting RDM: particularly research administrators and computing services – as well as involving researchers themselves (Jones et al.,2013; Hodson and Jones,2013). Little has been written about the differing responses among professional services to the new RDM agenda and how such professional services will work together. This paper reports a study that begins to address this gap in the literature through an interview based study of support professionals at one institution.

The paper is laid out as follows. It begins by discussing the theoretical framework for the study, Abbott's theory of professions. It then considers what we know about the professional communities of librarians, research administrators and computing services. The methodology of the study is introduced. Findings from thematic analysis of the interviews are laid out and then discussed in relation to the literature.

2 Theoretical framework

Abbott's (1988) theory of professions explores their development through struggles for jurisdiction. Abbott himself has written specifically about the information professions (1988; 1998) and others have used his theories, especially to examine librarianship's relationship to IT (Cox and Corral, 2013; Ray, 2001; Danner, 1998; Van House and Sutton, 1996). According to Abbott, professions are in constant competition with one another because the environment in which they operate is continuously changing, e.g. due to social-cultural and technological change. Abbott's system of professions is "a world of pushing and shoving, of contests won and lost" (Abbott,1998,p.433). In essence, the theory states that professions seek to claim exclusivity over certain areas of work, for what Abbott labels "jurisdiction". Claims for jurisdiction can be made in three different ways:

1. through acquisition of power to license and regulate those who may perform the area of work by means of a professional organization,
2. through creating a public image that associates the profession with that area of work,
3. and through direct competition with other occupations and professions in the workplace.

Professions cannot occupy a jurisdiction "without either finding it vacant or fighting for it" (1998,p.86): if there is a vacant jurisdiction – such as RDM – this will be a trigger for events in which adjacent professions dispute each other's jurisdiction. Such disputes can be resolved in a number of ways. For example, they can lead to either full jurisdiction for one profession, or to the subordination of a number of professions to another one. The dispute could also result in a standoff that leads to a more or less equal division of the jurisdiction into interdependent parts. Abbott calls this a division of labour or a divided jurisdiction.

Thus Abbott's theory places the project of professionalisation centre stage and follows the story of professions battling for territory and trying to create a strong sub-culture, knowledge base, ethical code and a degree of autonomy. For the individual, professions are relatively stable structures within which to build an identity and career. Yet from a managerialist perspective the autonomy, credentialisation and boundaries implied by professionalisation are costs that weigh against the benefits of professional expertise. This is perhaps under-theorised in Abbott, because his focus is on professions. For professional based services embedded in organisations this is an important context.

3 Professional services and their relations: libraries and librarians

Librarians belong to an established profession with a long tradition. Although such bodies also exist for research administration and IT services, they are far less well established and less authoritative. The LIS profession has sometimes been studied from the viewpoint of its competition with neighbouring professions and occupations, most notably Information Technologists. Partly using Abbott as their theoretical framework, Van House and Sutton (1996) argue that librarianship is under threat from other professions and academic disciplines: "LIS risks being outnumbered, outmanoeuvred, and rendered marginal" (p.145).

Most notably, this threat comes from Information Technology, digital information (both digitized and born-digital), and the Internet. It is argued that this has led to “a reinvention of the access role”, the core jurisdiction of librarianship for Abbott, potentially in competition with IT professionals in which the Library has taken on the management of electronic content (Cox and Corall,2013). The inclusion of IT-related tasks in the LIS profession’s jurisdiction, is combined with the advent of Information Literacy (IL) as a preoccupation and the librarian’s increasing educational/teaching role (O’Connor,2008,2009).

It may be that a similar response to the still increasing threat to the library’s traditional access role is happening within the RDM agenda (Cox and Pinfield,2013). RDM could be seen as an extension of the growing part academic libraries are playing in institutional repository management– another attempt “to expand the profession’s access jurisdiction into new areas” (Cox and Corral,2013,p.12).

4 Research offices and research administrators

Research administration plays “an important part in formulating, developing, supporting, monitoring, evaluating and promoting” university research (Hockey and Allen-Collinson, 2009, p. 142). Originally, the function of research administration belonged to the task set of academic staff. Macfarlane (2011) discusses how “all-round” academic practice has been unbundled and some specialist functions such as research administration have become the domain of what he calls the “para-academic”. This trend has been stimulated by a more managerialist approach to university governance since the 1980s, and subsequently by a specialization of administrative support functions. This was caused in particular by increasing administrative and regulatory demands on universities from government. The growth of specialist research administration has also arisen from competition for externally funded research.

Unlike librarianship, the occupation of research administrators does not appear to have many traits of a profession. Green and Langley (2009) report that there is a lack of accredited professional training, appropriate and nationally recognized qualifications, and clear career progression in the field. Although there is a professional body, called Association for Research Managers and Administrators (ARMA), it only has around 1,900 members (ARMA,2013). Indeed, Green and Langley’s (2009,p.17) survey showed “an embryonic profession struggling to create an identity”. They found that many research administrators did not feel well understood by either academics or their colleagues from the other support services.

5 IT services and IT professionals

Whereas research administration is a small professional group specific to academia, the IT profession is a large occupation spread over many sectors of work and little of the literature on it is specific to the HE context. Although an economically and culturally significant occupation, it is not organised in professional terms like librarianship. Professional bodies have sought to credentialise skills in IT, but the speed of change in IT has prevented them achieving occupational closure (Danner 1998). One strand of studies of IT has applied Trice’s (1993) theoretical framework to IT professionals (Guzman and Stanton,2009; Guzman et al.,2008). These studies have found that IT professionals have a distinctive occupational subculture. A number of studies have compared librarians with IT professionals. The literature on convergence of library and IT services usually acknowledges the cultural differences between the two (e.g. Joint,2011). Creth (1993) argues that these differences stem from their education: librarians share “a process of acculturation” through their dedicated and accredited university courses in librarianship, but IT professionals do not have a shared socialization process and therefore no “shared professional history and values”.

Creth (1993) reports a list of conflicting and shared values between the two professions that was compiled by participants to one of her workshops. The list contrasts the technical orientation of IT professionals with the service orientation of librarians, and IT professionals’ entrepreneurial behaviour and librarians’ need for consensus. They have a professional orientation in common, and a concern for the well-being of their institution. Favini (1997), in contrast, argues that the two have little in common, apart from

the fact that they both use technology to support the university's academic mission; as a result areas of overlap have been formed. But the professions have different tasks that require different skill sets and attract different kinds of people with different personalities.

6 Research questions

The literature does a little to establish the character of each professional group and something about how their relationships might shape the response to new agendas, such as RDM. It offers a conceptual framework for studying this in the system of professions. The emergence of RDM as an area of possible new joint activity is an opportunity to examine the nature of relationships between professional groups within universities. The research questions addressed in this research were:

1. How do different professional groups see RDM?
2. How do they think RDM support roles may be distributed between them?
3. Do the concept of jurisdiction enrich our understanding of how RDM is received as an agenda?

7 Methodology

The research adopted an interpretivist methodology; the purpose was to understand how social actors themselves saw RDM. Data was collected through semi-structured interviews with professional services staff in one HEI in northern England. The institution is a research intensive university of average size with separate departments for library and IT services (not a converged service) and with a centralized research office, henceforth referred to as Library, IT Services, and Research Office. Cox and Pinfield (2013) found that most HEIs are still in the early stages with regards to planning and implementing an RDM support service and that libraries are usually taking on a leadership role. In that light, the HEI in this study could be seen as having many typical features. By the time the interviews were undertaken in the period between February and April 2013, an RDM service had not yet been set up. Meanwhile it had become clear that the Library would play a leading role.

A series of 20 semi-structured one-to-one interviews lasting between 45 and 90 minutes each were conducted. University of Sheffield ethics procedures were followed to gain voluntary informed consent from participants. The purpose of the interviews was to gather insight into:

- the professional identity of the interviewees, including their relationships with academics and other support services,
- their views on research, and specifically on RDM, including drivers and barriers,
- their views on the relationships with other professional services with regards to setting up and running an RDM infrastructure.

The approach to sampling interviewees was non-probabilistic but purposive seeking to represent a good spread of job roles. For each of the services, both managers and non-managers were interviewed; the sample was also deliberately chosen to display a spread over different relevant units within the departments. It comprised both income capture officers and those involved in research governance (good research practice) in the Research Office (four interviews), managers, subject liaison librarians, metadata specialists and systems librarians in the Library (eleven interviews), and those involved in infrastructure (hardware) and applications (software), information security and records management in IT Services (five interviews). The emphasis lies on the Library because of its leading role in this university's RDM activities. The interviews were recorded, transcribed and then analysed using thematic analysis (Braun and Clarke 2008). Through careful reading and re-reading of the transcripts, a framework or "matrix [...] for ordering and synthesising data" was developed in an Excel spreadsheet and applied to the data (Bryman, 2012; Ritchie et al., 2003, p. 219). The data set contained over 170,000 words.

8 Findings: Professional views of RDM

When participants were asked to define RDM particular topics seemed to be associated with particular professional stakeholders. Thus the storage of active data was largely a concern of IT professionals. They viewed RDM as predominantly (but not solely) a storage issue from a systems engineering perspective. The emphasis lay on short-term storage of “active” data. One of the participants explained that in his experience, academics are always concerned about storage for their operational data rather than about issues involving metadata and data sharing. He argued that long-term storage and data sharing are what most people may think of as RDM, but that it is only part of the story and possibly not even the most pressing one:

Longer term, there’s the whole archival retrieval area and kind of support things, like open data access, which is often what people think data management is: it’s about the archival bit and it’s about linking data to research outputs, which is one aspect of it. But for many people the things they struggle with is actually: how do I deal with the stuff now? What is good practice?

Some of the specialists interviewed such as the expert in high performance computing, the information security expert and the records manager (who was located under the computing service umbrella) naturally saw RDM through the lens of their specialism. The records manager felt strongly that RDM was very much in the domain of his professional expertise. Yet his limited resources made it hard to forward a claim to a lead role.

Those working in the Research Office defined RDM mostly as the long term storage of non-active data, and the sharing of these data. One of the participants argued this was the whole point of RDM:

As an institution we’ll create a lot data and information from academic research, and it’s how we collate, store, and communicate that to other people either internally or externally. So it’s all very well spending a lot of time doing a piece of research and creating a lot of useful information if nobody else ever knows about it.

Yet participants from the Research Office also emphasised the limitations to open data, such as ethical and legal obligations in relation to the Data Protection Act, and contractual obligations. Such concerns were only mentioned in passing by only a very limited number of participants from the other service departments. The most important drivers for interviewees from the Research Office were attractiveness of the University’s research for research funders (which includes compliance to their requirements), and the quality of the research.

Librarians were more varied in their responses than the other stakeholder groups. The Open Access officer defined RDM as an extension of her role, and followed the IT professionals’ division of RDM into active and non-active data. Both she and the metadata specialist specifically highlighted the open data aspect of RDM, and emphasized the role of metadata in data sharing:

How are you going to make your data useable by other people who don’t have your background? So that has a lot to do with descriptions of the data, the[...] metadata.

By contrast, Library managers defined RDM as a challenge. One of them saw the challenge not in storage – “I don’t perceive storage of data to be difficult, or indeed expensive in this day and age” – but in advocacy:

I think part of the challenge is in the advocacy, and I don’t just mean the skilling-up of library, information and computing people to deal with the situation, but advocacy as far as the academics are concerned.

As regards drivers, some referred to the library’s traditional role of providing access to information, to the open access agenda, and to the Library’s educational role:

If you're going to have a more open approach to research data, you need to organize it. It needs to be described properly. [...] It's about [...] having it organized enough so that people can find it, use it, evaluate it, reuse it, etc. And that's absolutely central to a librarian's role. [...] But also the training, the fact that we're good at signposting, providing guidance/training in handling information. That's what we do.

The liaison librarians focused more on what mattered directly to their roles. They highlighted queries from academics as their most important driver, but at present they were getting hardly any.

In summary, IT services saw RDM as about data storage, especially active data storage and information security. Research administrators tended to see it as about data sharing, driven by research quality and compliance to funders' requirements. Librarians saw it as about data storage and preservation, but also advocacy and training.

9 Findings: Distribution of RDM roles between services

When IT staff were asked to define their role in RDM, they highlighted first of all storage from both an infrastructure (hardware) and an application (software) point of view, and secondly guidance, training and support as the areas they were likely to get involved in. One of the managers described their involvement as "providing the bedrock either directly or indirectly". He saw the management of active data as "likely to be a discussion between [IT Services] and the researchers themselves, to really tease out what their needs are." However, the management of non-active data was seen as a collaborative effort with the Library, where the Library would take control of the "management of long term repositories". For him, a research data repository would be "just another system". Advice, guidance and training was another service that IT professionals felt responsible for, although they described it as a shared responsibility, especially with the Library.

The two participants from the Research Office's income capture team saw their involvement in RDM as limited. They did see signposting and advice on Data Management Plans as belonging to their remit, although perhaps not something they yet had expertise in. However, they thought RDM would not impact on their role in any major way because they work "pre-award". They felt the research governance team would be more involved in RDM, because they operate "post-award". But the participant from that team saw her involvement in a similar way to the income capture officers: providing guidance, support, and awareness-raising.

Especially the preservation of data was identified as an area where at present only the Library had an interest. Providing guidance, training and support was identified as a role for the liaison librarians.

When participants were asked to identify any areas of overlap or even conflict and competition between the professional services in RDM, not all were prepared to talk in terms of conflict and competition.

Others, however, did see a competitive element:

I can see that competition will come into it [...]. If it was me personally I'd say, "no". But in reality I think, "yes". There will be competition and that's part of the problem. There is a bit of jostling for position over this.

There were three main areas of overlap and contention that participants identified: systems specifications; training, advice, and guidance; and leadership. One of the Library managers mentioned storage as an area of overlapping roles. Both in the IT department and the Library there are "systems people" with expertise in "the technical infrastructure". They may both be involved in defining the specifications for storage systems. This would also be true for the Research Office. In particular, they need to be involved in the specification of the metadata that needs to be collected from funded research projects.

Most participants thought there might be an overlap in the provision of training, advice and guidance. It was generally assumed that all three departments would be involved, but that there was a danger that the information they provided would be inconsistent:

I mean we've got to be very careful that we don't have contradictory messages out there. We just need to make sure it's the same message to everybody wherever it's coming from.

Participants referred to a natural division of training roles between the departments, although they identified areas of overlap such as about practical data management, ethical considerations and data security.

A Library manager suggested there might also be competition over the branding of the RDM support service:

It will be over silly little things like where to host the web page, because that seems to matter: Whose brand is it going to be? It's around the branding, I think, where the most competition will arise, because: which URL?

Less an area of overlap and more an area of direct competition was the question of RDM leadership. One of the IT managers identified RDM as "quite a major area and it is quite high profile" which could be both an opportunity and yet also a poisoned chalice. It is an opportunity, he argued, because "there is a big demand out there for help" and "it is an important part of our role to actually provide that for people". However, RDM could be seen as a hazardous area of for two reasons. First, at the most senior level of university management there were differences about whether the agenda should taken seriously, e.g. over whether funders would enforce compliance. Some research office staff seemed to share these concerns. Secondly, the selection of data to be preserved in the long term could be controversial:

Those are the real challenges: if we're going to keep things, it's not so much even a question of where do we keep it, it's: what do we actually keep, what's of value? And the view in some quarters is that 99% of data is actually useless and you might as well just throw it away. So that's the poisoned chalice bit, I think.

The Library, by contrast, seemed willing to take the lead in RDM. One of the Library managers described RDM as an integral part of the profession in the future:

Helping to curate research data management is going to be vital to the profession.

She argued that RDM is vital to the profession because providing access to academic information is the Library's main role, whether this information is bought in from publishers, or produced by the university's own academics:

We look after academic stuff. I know it could be a printed notebook or it could be a really complex experimental output, it could be raw data, it could be publications, all sorts of stuff. We're in the business of looking after whatever this institution puts out into the world, and not just in the business of buying stuff in from elsewhere.

10 Discussion

Some participants were reluctant to talk about there being conflict over RDM. What the three professional services had in common was a shared commitment to organisational purposes and especially to service delivery. This was most clearly articulated by one of the IT professionals, who thought there could be no significant difference between the professional cultures because all were committed "to the provision of a service which they want to be high quality, and they want to make sure that the customers that use that service are satisfied." Such discourses overlay any sense of an immediate jurisdictional dispute or clash of

professional cultures. However, the nature of the services and the customers they aim to satisfy are different, as are the relationships that the participants perceived to have with the other professional services.

These differences in the nature of the services provided were reflected in the different views of RDM that the participants expressed and how they thought the tasks should be divided. Predictably, participants from IT Services defined RDM predominantly as the storage of active and non-active data. This was a distinction that was only very infrequently made by participants from the other services. Participants from the Library and the Research Office were not concerned with the short-term storage of active data, but with the long-term storage of non-active data and with data sharing. One of the IT professionals summed up the difference: the Library and the Research Office are interested in the end product, whereas the IT department focuses on the entire lifecycle, “right the way from the start or even the pre-start, because you have to fathom what it is you want to do and store and how you are going to do it, all the way through to the end product.” However, as far as the drivers are concerned, there were differences between the Research Office and the Library. Participants from the Research Office saw the attractiveness of the institution’s research to research funders and the associated issue of research quality as the main driver to engage in RDM, whilst not all librarians had a sense of an intrinsic driver and some of the non-managerial staff seemed reluctant to engage in RDM. However, especially managerial staff formulated engagement in RDM as an opportunity, suited to the Library’s traditional access role, its existing skills in information management, and its championship of open access and digital preservation. Importantly, they also considered it to be an integral part of the profession – something that none of the other interviewees commented on.

The division of roles regarding the management of long-term non-active data (data selection and handover, data repositories, data catalogues) and guidance, training and support were unclear. Critically, librarians identified RDM as a likely integral part of librarianship, and they highlighted the alignment of RDM tasks with current Library expertise. This prompted them to claim a leadership role. It would appear that any conflict over professional jurisdiction in an Abbotonian sense, would most likely involve IT Services and the Library. An on-going jurisdictional conflict between these two professions is already known from the literature (e.g. Cox and Corral,2013; Ray,2001; Danner,1998). In this particular case, the interviews suggested that the Library was indeed keen to extend its jurisdiction into RDM, more so than IT Services. IT professionals seemed to consider RDM from their usual perspective as deliverers of an infrastructure as a (paid for) service, and they did not appear to be enthusiastic to expand that role into the actual management of data. Indeed, the Library was already proactively taking the lead: they had designed the institution’s RDM policy, and were leading the institution’s efforts to implement an RDM service. As one of the IT managers said: “The library seem very keen to lead on it and I think the rest of us are quite happy to sit back and let them do it.”

Through Abbott the driver to take on RDM could be interpreted to be the result of pressure on the longstanding access jurisdiction of librarians. From all participants, the Library emerged as more explicitly uncertain and concerned about its role in the institution and in RDM in particular, than the other professional departments. Ironically, librarians were also the least well informed about the nature of academic research. The number of staff with PhDs, for example, was significantly lower than in the Research Office and IT Services, both in the sample of this study and in the whole population. As a big professional group in most academic institutions the library has the resources to stake a claim for jurisdiction over RDM. Smaller groups such as the records manager or even research office are disadvantaged in this respect. IT were less keen to claim the area. Perhaps this was partly because the resourcing of the area was unclear. IT Services defined themselves with a slight feeling of ethnocentric (Trice 1993) superiority as the “funnel” through which all information has to pass in general, and as the “bedrock” of any RDM service in particular. This sense of strength could be seen to rest on IT Services themselves providing a service to the other

professional departments, and there are therefore relationships of interdependency with both the Library and the Research Office. Secure in this position the need to claim jurisdiction over RDM was less.

The Library was not fighting for “full jurisdiction” over RDM; Abbott defines full jurisdiction as complete control over an area of work, subordinating the other professions involved. It would rather seem that the parties are working towards a “divided jurisdiction”: a situation where the dispute ends in a more or less equal division of labour between interdependent parts. This would in many respects be expected to reflect a “natural” division of labour established in other areas where work was divided between the different services. Yet the evidence showed that there was scope for conflict between the professional services, such as those resulting from varying priorities in interdependent relationships, and possibly even some form of competition over issues such as the branding of the service, but that on a higher managerial level the consideration of the benefit to the organization might very well prevail over professional dispute.

11 Conclusion

Adopting the lens of Abbott’s theory is a useful way of looking at RDM. Through his theory, RDM may be considered an arena where various professions meet and vie for jurisdiction over a newly emerged area of work. However, of all stakeholders involved, the Library was the only professional department trying to claim a new jurisdiction in RDM. The Library’s proactive steps into this area reflect an already long-standing movement within the profession to extend its jurisdiction into a more IT-based direction, into training and tentatively also into research support, e.g. through open access for research publications. The interviews support this interpretation: they show that the Library sees its involvement mainly as a provider of access to research data via a repository, and as a provider of training, guidance and support to the research community. RDM can therefore be seen as a new area of work for the Library in the form of an extension of areas of work it has recently tried to claim. Although this involvement in RDM may represent a claim to a new jurisdiction, there was no evidence from the interviews that this resulted in a full-blown Abbottonian struggle between competing professions. The departments in this case study were happy with the Library’s lead; they claimed to be short of resources to take on such a complex project, and some feared RDM may be a “poisoned chalice”. It would therefore seem that the Library’s willingness to enter a new area of work (seen as an opportunity), combined with the relative reluctance of other stakeholders to lead on RDM, and a shared concern for the common good of the organization, does not result in an Abbottonian struggle over work. Abbott’s theory focuses on the relations of professions; for profession based services in organisations the tension between the profession’s interests and the good of the organisation is a key context.

The research presented in this paper was an investigation of RDM provision in a single research intensive university. This institution had a centralized research support office but not a converged IT/library service. Other institutions will have different constellations of service and different existing relationships between the professional services prior to the emergence of the RDM agenda. The size of the institution and its balance of research activity are also important. The way forces work themselves out would clearly be somewhat different in a non-research focussed institution. It would also be very significant what the authority structures of the institution were like. A more managerialist environment would mean that professional autonomy and conflict would be much more likely to be curbed. Further, how the forces identified here will play out as actual services are created remains to be seen. Different pictures may therefore emerge. In some institutions the Library will not take the lead on RDM. It is a truism among those working in the field of RDM that every institution is different about how it approaches RDM, because of the complexity of the issues. Precisely in order to explore this complexity more in-depth studies are required. The paper does demonstrate, however, that an approach informed by Abbott’s theory of the professions is a useful perspective. It is plausible because it chimes with what we already know about support services as professional communities. Although the relations between libraries and IT services have been of interest, at least to scholars and practitioners from librarianship, relatively little research has been published on their

relationships, on the internal organisation of computing services in academia, and little that connects to wider research on university administration (e.g. Whitchurch 2012). Further consideration needs to be given to theoretical alternatives to Abbott, such as Whitchurch's (2012) concept of Third Space. These are promising lines of research inquiry for broadening our perspectives on library work: to understand how the profession develops as shaped by its relations with other professions, and in relation to organisational needs and purposes. RDM itself is a fascinating locus of change, as part of a seeming return for libraries (and also IT services) to support of research one that could lead to significant reconfigurations of professional services, e.g. in terms of skillsets required, interactions and styles of activity.

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