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Academic libraries' stance towards the future

Abstract

The literature about academic libraries has a strong interest in the future, yet there is little written that reflects on academic libraries' underlying stance towards the future: is there a sense of change or continuity? Is there optimism or pessimism? Consensus or divergence? These questions are explored using data from interviews with a broad range of practitioners, commentators and experts. The findings reveal that some saw libraries as fundamentally unchanging, while others perceived change as a given. There was little consensus either about upcoming trends. There were doubts about libraries' ability to deal with change; but there was also considerable optimism.

Introduction

The Heritage Futures research programme (https://heritage-futures.org/) examines the challenges of conservation into the "deep future", in the context of the themes of uncertainty, transformation, profusion and diversity. At one of their events they asked experts to consider if they could choose an object to preserve for 100,000 years, what would it be and why? (https://heritage-futures.org/from-the-archive-to-the-vault/). This poses profound questions about what the future is and how conservators, museum curators and archivists conceptualise it. It also prompts the question: how do information professionals in general conceive of and relate to the future, the key changes affecting them and their role? In a society suffused with talk about the future it seems that a key aspect of any profession is how it sees itself relating to the future. Heritage Futures asks this for one particular group of information professionals; this paper asks how it is perceived in academic libraries.

The core notion of the library collection implies a long term commitment to preservation and enduring access, but as academic librarianship has come to focus more on access and information literacy, what sort of relation to the future emerges? As the literature review below will show, works proliferate advising academic librarians on trends that are likely to affect them and how they

should be or are responding. This gives us a sense of up-coming changes, but it does not tell us how librarians feel about the future or their underlying assumptions of how to respond to it. There has been little empirical research evaluating the profession's stance towards its future and the assumptions on which this is based. The aim of this paper is to address this gap, focussing not on trend spotting or scenario planning, but more on consideration of how libraries conceive of the future and the assumptions underlying their responses to it. This involves consideration of a wide range of issues including:

- how the future is perceived by libraries (including whether they are currently experiencing more change now than before);
- whether there is agreement about what the key trends are;
- whether the future is seen as threatening or encouraging;
- how well equipped libraries are to undertake change;
- and how far ahead library professionals think and plan.

All of these issues are important ones which together define the nature of the academic library profession. The orientation of a profession to the future is critical in a society preoccupied with foresight [1]. In practical terms, how a profession conceives of futures will affect its ability to offer leadership. Academic librarian leadership has sometimes been criticised for its lack of vision in shaping change [2]. This present study aims to address the question of whether this might be linked with how academic libraries currently orient to the future.

The treatment of the future in the library literature

There are many works that attempt to predict the future of academic libraries. Some come in the form of reports that identify key trends for academic libraries and are published on a regular cycle, for example ACRL's biannual Top Trends and their environmental scans [3,4]. These convincingly capture the main trends in the sector, often with a focus on a specific country, particularly the USA. The NMC horizon series have an annual library-specific report [5]. These concentrate on

technologies and the drivers and barriers to their implementation. They now differentiate more complex, “wicked” problems from those that are more straightforward. The Ithaka S&R library reports are another regular series, in this case examining senior managers’ views on various aspects of change [2,6]. Some other regular reports focus on a specific aspect of academic library work, such as the library systems report published annually by Marshall Breeding in the *American Libraries Magazine*.

In addition to regularly updated studies, there are also many individual publications that attempt to summarise the changing position of academic libraries, be they reports, books or journal articles. One example is the SCONUL report “Libraries of the future: scenarios beyond 2020” [7]. Rather than making specific predictions, it adopted the approach of creating four scenarios which narrated alternative futures based on radically different assumptions. In addition, there are monographs by particular individuals such as Lewis [8] and Lankes [9] or edited collections such as Baker and Evans [10]. Individual articles do similar work. Some are based on literature reviews [11,12], some on Delphi studies [13] or a combination of sources [14]. Individual library initiatives such as the MIT report on the future of libraries [15], the Futurelib project at Cambridge (https://futurelib.wordpress.com/) and the various unpublished studies undertaken for UK universities by NOMAD (http://www.nomad-rdc.com/Projects-1) also play their part in examining future trends.

At a higher, more meta level, other reports deal regularly with changes in Higher Education as a whole (e.g. NMC Horizon and NESTA) or IT (e.g. the reports published by Gartner). Gartner’s hypecycle concept is widely referenced as a model of how new technologies gradually achieve usefulness, after periods of hype and then disillusion. Bodies such as the World Economic Forum also publish many reports examining the future, such as on new technologies. Importantly, the wider global information environment has been explored in the IFLA Trend report [16] and subsequent

updates. The five key trends identified recognise both positive and negative aspects of major changes to how information is accessed and used globally.

In addition, a large proportion of all publications about academic libraries could be seen as at some level relating to the future, by focussing on an individual problem area, be that through exploring case studies of the implementation of a new technology or proposing new ways to manage specific services. Dorner, Campbell-Meir and Seto suggest that 500 articles were published about the future of libraries between 2011 and early 2016 alone [17]. Through all these works the academic library community is well served in terms of perspectives helping the profession keep up to date, learn from good practice and horizon scan.

It may also be relevant to consider more conceptual pieces as contributing to our understanding of the future of academic libraries, in a slightly different way. Literature reconceiving the nature of the academic library through new "paradigms" such as the "hybrid library", the "inside-out library" or the "library as a platform", also engage in thinking about the future [18,19,20]. These are less specific than identifying a particular up-coming trend, rather their strength lies in capturing fundamental change with many implications, some still in the process of being worked through, in a particular concept or paradigm. Indeed, it is in many respects their openness to interpretation that gives such concepts their power. They provoke us to think through the implications of change in a complex way.

A rather different body of literature are studies of individual library strategy making. For example, Saunders compares the content of library strategic plans to predicted key trends, to reveal areas where libraries do not seem to be responding to anticipated change, e.g. data services, and surprisingly, technologies [21]. Meier (2016) examines how academic librarians make decisions and what key strategies are [22].

Reviewing this literature gives us a good sense of what is on the horizon for academic libraries. It is not the aim of this paper to summarise these trends as such. Rather, we suggest that there is a gap

in the investigation of how libraries/librarians relate to the future, as opposed to what the key trends are. There is a vast amount of literature identifying current trends within libraries or in the wider environment that could affect libraries, and even some on how strategy is made, but little of this reveals the stance of libraries to the future. This would look more at how change is experienced, the degree of consensus about what changes are important and reflect on libraries ability to cope with change. The volume of literature could in itself be interpreted to reflect a widespread sense of the need for change, but there is less of a focus on how libraries orientate themselves to such futures.

There are certainly some suggestions about how librarians should approach the task of envisioning futures. Several authors advocate adopting scenario planning and explain what would be involved [23,24]. Similarly, Mathews suggests adopting some of the techniques of futures studies [25], noting that scenario planning has already received some recognition in LIS [26,23,7]. He concludes that curiosity is the best orientation to change, not positivity or negativity. Fenner and Fenner also make some recommendations about how to think like futurologists [27]. Yet there is a paucity of empirical research investigating how the future is actually perceived in the academic library sector. Are things experienced as unchanging or continuously changing, even disruptively? If there is a sense of change, is it viewed with pessimism or optimism? Is there unanimity and clarity about what are the key trends affecting academic libraries? Within what timeframes do libraries operate in order to plan for the future?

In this context, the research questions posed for this analysis are:

1. How is the future perceived in academic libraries?
2. To what extent is there agreement on what trends will affect academic libraries?
3. How capable are academic libraries believed to be to respond to the future?
4. Within what timeframes do academic librarians tend to think?

Discourses about futures

Many discourses and practices around the future are encountered in current society and these might be usefully considered here in order to place the views uncovered in the data from this study on academic libraries in a wider context. For example, organisational strategy promotes thinking about how organisations can adapt to a changing competitive environment. Some of the key methods in the strategic management toolkit, such as analysis of Political Economic Social Technical (PEST) aspects of the environment or PESTLE (which adds Legal and Environmental aspects). These are designed to help structure our thinking about how the environment is changing [26]. Notions such as emergent strategy acknowledge the increasing impact of complexity on the organisation's relationship to its environment.

Another way of talking about the future that is frequently encountered is around technology as the key driver of social change. It is common in journalistic treatment of the future. Authors from the field of information science have been among those challenging this social discourse when it is manifested as technological determinism, the assumption that changes in technology alone drive social change. Technology is made by people, its use expresses cultural values, its diffusion is a social process shaped by social structures of power, and technology is often reshaped by people during its adoption [28]. Another counter to the technocentric view of change is captured by Edgerton with the term the "the shock of the old", referring to the persistence of older technologies, alongside the new [29]. Technology can then be an important locus of change but its significance needs to be considered in a wider social context.

Another common perspective on the future is summarised by the acronym VUCA: volatile, uncertain, complex and ambiguous [1]. This mantra, apparently first coined by the US Department of Defense, encapsulates our common anxiety and disorientation in the face of the future.

Two other discourses are worth acknowledging. Both revolve around a sense of crisis. In many spheres, critical scholarship identifies neo-liberalisation as a fundamental global trend. In Higher

Education, this direction of development is often referred to as the New Public Management, implying increasing managerialism, commodification of learning and a culture of performance measurement. This can also take the form of an attack on professionalization because it emphasises corporate priorities over professional values [30]. There is related work around the "McDonaldization" of libraries: meaning the spread of corporate values, including increased stress on competition, profit or value for money, and enterpreneurship [31]. Neo-liberalisation often seems to involve a sense of crisis that appears to be driving public sector organisations to become more like businesses. This critique reminds us of the ideological character of talk about the future, prompting us to consider who benefits by forcing change under the threat of global competition? Another influential discourse centred on crisis is around global climate change and issues around water, food and energy security. Radical voices call for society to act differently in the "anthropocene", the era in the planet's evolution in which man has become the dominating force and is making irreversible changes to our world. An example in the library sector is the way UNESCO's 2013 call for heritage institutions to explain how they contribute to Sustainable Development Goals was echoed by ALA and IFLA [32,33].

Meanwhile, it seems that within Futures Studies or Foresight as a subject and practice the fashion has moved away from seeking to predict the future, and much more towards considering productively how we can influence the future [24]. Thus, our ability to shape the future could be seen as a further discourse around the future. Relating the findings of the analysis in this paper to such discourses will enable further reflection on the stances towards the future found in academic libraries.

Method

The data reported in this paper was from a set of interviews with stakeholders both from within and beyond the library community. We interviewed 33 participants in total: 23 from the UK, 10 international; 15 women, 18 men. Participants were chosen based on the researchers' knowledge,

web searches and with the approval of those commissioning the report. The aim was to capture as full a range of views: such as of those working in both research intensive and more teaching led institutions, those working in different parts of the UK and also different degrees of embeddedness in library practice. With their permission, a full list of participants was published with the project report [Authors, 2017]. Thus participants included some within the library profession itself (referred to below as “library mangers”), from commentators who write from a more distant perspective on the scene (“library commentators”) and experts in the wider educational scene, to give a broader perspective (“non-library participants”). All quotations in this paper have been anonymised using the three categories described above. Such categorisation was not always straightforward as our participants carried out a wide range of roles and came from a variety of backgrounds, but the categories are referenced with each quote to give some context to the remarks reported. However, there was not found to be a pattern of systematic difference of perspective between the interviewee groups. The paper reflects the range of views across the whole body of interviewees. Because the participant base was relatively small but broad, no attempt is made to attach significance to the frequency with which views were expressed as representing a population as a whole, but we suggest the data does probably capture the range of viewpoints.

The interviews were wide-ranging and were focused in the long term rather than immediate concerns. Interviewees were asked to try and identify the top three current trends affecting libraries, respond to some scenarios of change (such as whether they thought books would ever completely disappear from library collections), and also some direct questions about how they went about studying the future. They were conducted between May and July 2017 with each typically lasting an hour. Voluntary, informed consent was gained from participants, and the research approach gained ethical approval from the [anonymised institution] formal research ethics process.

The interviews were recorded and fully transcribed. Systematic Thematic Analysis [34] was carried out on the interview transcripts, including a process of detailed coding, from which we identified

major themes in the data. The authors collaborated in reading and reflecting on the interviews, developing codes and then in writing about the themes. Much of this material was about specific trends and is reported elsewhere [authors, 2017]. Emerging from the data were a series of explicit and implicit beliefs about the future, and it is on that data this paper is primarily based.

The study in which the interviews were conducted also included a survey carried out online during July and August 2017 of UK library staff, at all levels. The survey was distributed by SCONUL to its closed lists but also made available more widely on open lists, including LIS-Link. 261 usable responses were received; the full demographics of the response are reported elsewhere [authors, 2017]. The survey tested a number of issues arising from the literature and particularly from the interviews. Because most of the questions related to beliefs about actual trends, rather than attitudes to the future it is less relevant to this paper, but some limited reference to the survey findings are integrated into the current paper in order to supplement the main qualitative analysis.

Findings

The following sections present findings in response to the four research questions. In the first section, the analysis describes the diversity of views around the extent of change: from those who emphasised continuity to those who saw change as a given. It also reflects on the range of feelings around the future from anxiety to confidence. The second section focuses on trends, but rather than focus on what key trends were, the analysis describes and explains a lack consensus among interviewees and survey participants about what key changes are coming. The third section considers views about libraries' ability to cope with change: again highlighting the variation. The fourth and final section reflects on the wide range of timeframes within which the future seems to be framed.

Perceptions of the future

Some participants emphasised a sense of continuity: the enduring centrality of the library to the idea of a university and also the wide understanding across society of the "library brand".

> *"You know it is very entrenched in university life. For many centuries a library has been second perhaps only to the classroom as a reification of the idea of what a university means." (Non-Library Participant)*
>
> *"There is something about the university and its learning and scholarship where, a library has to be at the heart of that." (Non-Library Participant)*

For them the library has traditionally been central to the idea of the university, itself a long enduring type of institution, but there has also been broad social awareness of what a library is:

> *"Library is a well understood brand that doesn't just apply to university campuses, but it applies to all walks of life. People are familiar with what a library is usually from their earliest childhood." (Library Manager)*

This is not necessarily to say nothing has changed, but perhaps the fundamentals have remained unaltered for an extended period of time, and for some this is expected to continue:

> *"I think that the basic functions are not that different to what they have always been in that libraries are about organising and providing access to information resources, broadly interpreted, that people need. I don't think that is going to change, no matter what format and no matter the fact that it includes a much wider range of resources now including data resources, as well as more conventional information resources." (Library Commentator)*
>
> *"I think that the actual things that people need libraries for is remarkably persistent. I think that what shifts are the different ways that that can be provided. […] Just thinking about furniture: the most flexible and effective piece of furniture in a library these days is a big table. And, there have been big tables in libraries since there have been libraries. So there is a whole lot of persistence. (Library Commentator)*
>
> *"Interviewer: Do you think we will reach a position when there is no building called a library?*
>
> *No. ((laughs)). I think we have been having this conversation for about 30 years, haven't we" (Non-Library Participant)*

Thus some felt libraries had not changed fundamentally in what they provide, even if how this was done had altered, and despite all the focus on change. This perception was often based on the continuity in the idea of a library as a collection, but it could also be because learning itself was essentially unchanging. Asked to consider a ten-year timeframe, one participant commented

> *"Well the technology will be unrecognisable, by then, but learning is still going to be hard, it is still going to require effort, it is still going to require conversation and we are still going to have students on campus, so I think all that will change in libraries is the technology will evolve, but I think we will still have the students*

sat working in groups and working individually because that has to happen for learning to happen." (Non-Library Participant)

Whereas some participants' answers emphasised continuity, n contrast, some others saw fundamental change as a given of professional life:

"We keep reforming ourselves because we have been doing that for my whole career." (Library Manager)

Indeed, some thought now was a time of particular instability and change:

"I think right now, it is such a tumultuous time, for institutions … because of the changing relationship with students and the changes within government. We have got changes at Research Council Level, the ministry is increasingly interested in open science, and Research UK…" (Library Commentator)

Even if they did not identify now as a particular tipping point, some felt fundamental change had happened or was happening:

"So I think libraries are sort of having a bit of an exponential crisis [sic] in some ways because a lot of what they used to do, so they were controllers of access to content in the past, and that has now been democratised in lots of ways." (Non-Library Participant)

"The library as you know we have known it for the last several hundred years as a place to bring in content that is hard to find, content that is expensive, and make available to a particular community, a particular privileged community maybe that role is going away" (Non-Library Participant)

Thus, there was often a sense of fundamental change, often seen as arising from the erosion of the place of the collection in the meaning of the library.

"[Libraries] understood what they were there for [historically]. They were there to acquire the materials that were required to support learning and research in the print world, it was clear what that was, and goodness related to basically having more of those materials or the efficiency with which you processed them and then the services, the space and so on which surrounded those print collections. [Whereas now] the ends are no longer fixed in the same way, we have to decide whether we get into research data management, we have to decide how much of our effort goes into engaging and liaising with departments, how much of building learning commons do we want. Are we going to have research commons? So they are having to make decisions and when you make decisions it is a decision about investment and so you are putting resources in particular places which means you are not putting resources in other places." (Library Commentator)

Several participants agreed on the need for change:

> *"Should libraries be changing to make themselves relevant, in the 21st century? 100%. No question." (Non-Library Participant)*

> *"If we keep doing what we have done in the way that we have always done it, you know we will fall off the map." (Library Commentator)*

Running through some of the participants' comments was anxiety about the future, a perception of the future as a "threat", meaning the library needs to work hard to adapt in order to survive:

> *"I think the library has to fight for its survival, it absolutely must, you know at the moment the library is part of the community within its institution and it has to keep fighting for that and the way to do that is to show value." (Library Manager)*

Despite this, some participants argued that libraries should not become introspective and make their survival their key objective; if they did, one participant suggested, it would be likely to actually threaten their relevance:

> *"I think that if you are, which is ironic right, if you are a library director whose goal is to save your library you are going to find our self out of step with your university and you are likely not to save your library." (Library Manager)*

Instead, libraries should be outward facing, attempting to support the work of their institutions and in particular solving problems on behalf of users in their use and management of information. This optimistic sense – of libraries being able to actively shape future developments – was taken up by a number of participants:

> *"I think change is fantastic for libraries… but I think we should be taking a more active role in creating more disruptive products and services ourselves as librarians." (Library Commentator)*

> *"But it is not just up to librarians to respond. I think librarians need to be driving and pushing these external factors along. So I think we need to be stepping up and making educators, researchers and students want to work in different ways and offer them different ways in which they can work. So I don't think we should be passive in this, because never mind 10 years, I mean in 6 months something could change." (Library Manager)*

A similar ambivalence about the future was reflected in the survey (though within a somewhat different population of participants). Several answers were positive about the exciting future role for libraries in HE (Figure 1). Yet, the future of library employment was seen rather ambivalently: library

skills would still be relevant but there would be fewer jobs (Figure 2). For a fuller discussion of this material see [authors, 2017]

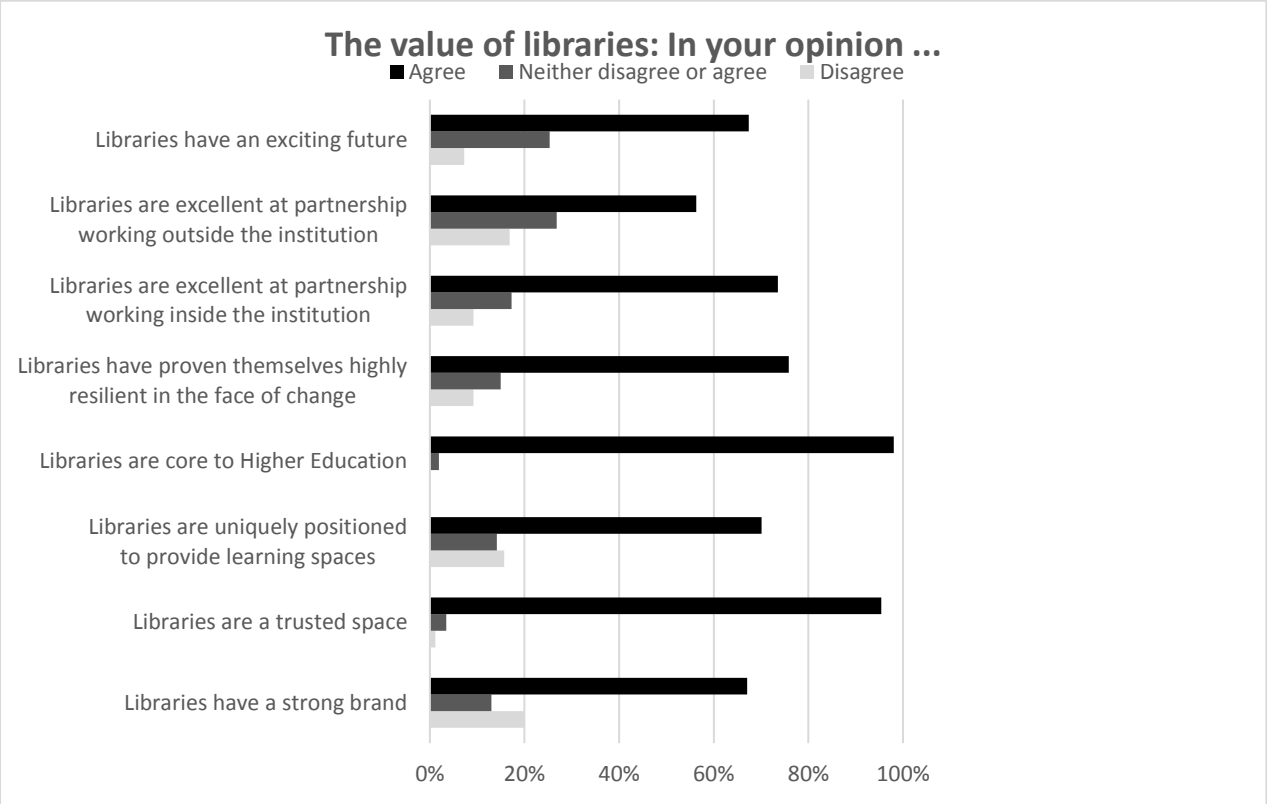

Figure 1: The value of libraries [for this presentation of the data disagree/strongly disagree and agree and strongly agree were aggregated]

Figure 2: Professional skills

Thus reflecting on the first research question, there was a lack of consensus in answers. Some emphasised fundamental continuity; others felt there was a sense of continuous change. Some were pessimistic about the future, some optimistic.

The clarity of key trends

The first question in every interview prompted the participant to identify three key trends impacting academic libraries in the next 10 or more years. There was little consensus evident in the answers. Open access was mentioned frequently; Artificial Intelligence (AI), new pedagogies and space were also mentioned several times, but most trends were only mentioned by one individual. Items identified were not new to the literature, but the lack of consensus was indicative of a high level of uncertainty.

Similarly, as Figure 3 reveals, the survey part of the study produced some strong support for the importance of trends such as open access, “changing learning and teaching practices”, “anytime, anywhere, any device access” as potentially having a significant or even transformational impact. Yet nearly all of the thirty trends the survey asked about were seen by at least a few people as

transformational. This seems to express a sense of a bewildering array of changes and a fragmented understanding of how the environment is changing. At the same time, it was felt by interviewees that some key trends were probably being underestimated, notably the potential impact of AI. Thus a lack of consensus about what key changes were happening was another major theme in the data.

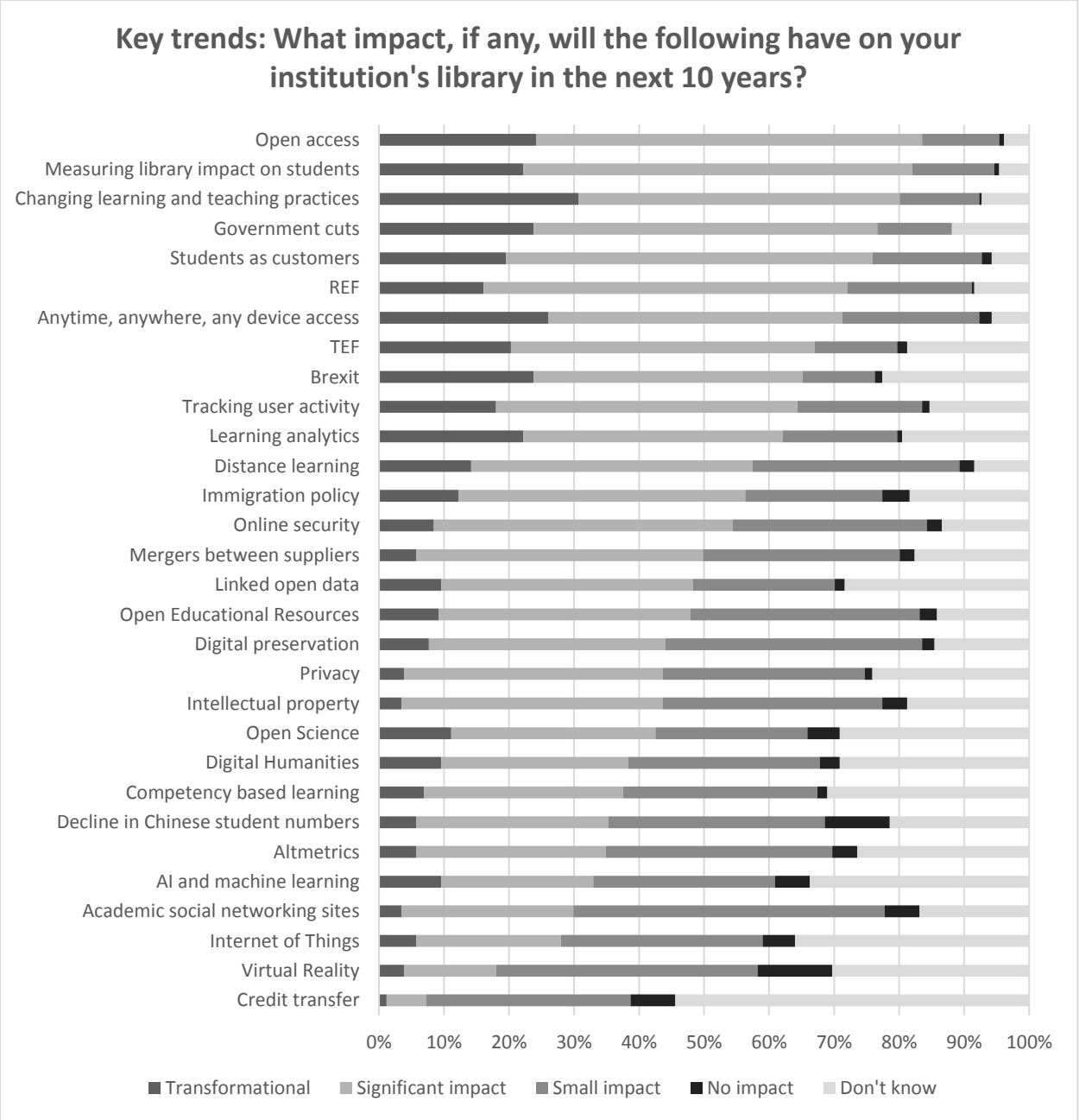

Figure 3: Key trends and their potential impact

Interviewees found it hard to pick out just two or three trends or indeed to decide which trends to focus on in their practice.

> *"Well I couldn't get down to two or three [trends]. I always start by thinking about what is going on in teaching in my own institution what is going on in research and then you know I can't help thinking about technology and changing student behaviour and rising costs. But more and more I find it really difficult to work out what to put my attention to, what is the most important and there is so many things competing for attention." (Library Manager)*

Although the question was couched in terms of 10 years, many of the trends interviewees did identify were happening now, such as open access. This suggests that participants were thinking in quite a narrow time horizon, located in the immediate past and present, or that they saw many relevant trends as already present even if currently patchily distributed.

Examining the responses, we can begin to suggest some of the key reasons why there was a lack of clarity and consensus about what were the key trends that would shape academic libraries' futures. Firstly, there are simply so many changes at work. Interviewees found it hard to choose which to focus on. Another factor was that key trends were complex and playing out over a long timescale. Thus directly asked about the impact of AI, some recognised this as having been an area of development for two decades, others felt it was something that was happening now, others talked as if it were a potential in the future. In the midst of major change, it is hard to discern its scope, and disentangle different aspects of one general trend. Another factor seemed to be the complex, entangled nature of the trends. Trends affect more than one area of library work, perhaps in contradictory ways; they may also have direct and indirect effects on libraries.

> *"The first one that I was thinking around was machines and artificial intelligence… and linked to that the capture of big data and the use of big data by massive services providers, people like Google, people like Facebook … there is the experience that they will deliver and how that raises expectations or alters expectations of students' engagement with institutions, and the library as part of that. And related to that questions around privacy and what is done with one's data. And the degree to which students wish to hand over data or safeguard their data… and we already see this in a way with the manner in which some publishers are looking to capture more data on students, on who the students are that are using their services and things like that. So I think that is a major change. I do think tied into that changing expectations, of a university education. The burden of debt on students and what that might mean. Changing nature of your student cohort but also possibly your sort of your academic cohort and their relationships with the institutions. Things like tenure have decreased. The number of casual employees of universities increases as well. I think that is going to have*

> *a, a major impact in terms of the academic library and their ability to reach out to those groups." (Library Commentator)*

Thus developments seemed to combine, and especially when those changes were quite rapid. It is hard to disentangle a number of trends and their impacts, be that on students or researchers, profoundly impacting their behaviour, and what the implications would be for academic libraries:

> *"It is just that it is happening very, very fast. There is a lot of different things going on." (Library Manager)*

A number of participants thought that almost by definition the full impact of disruptive change is hard to imagine. Indeed, the impossibility of predicting change was for one interviewee a reason not to seek to "spot trends" at all:

> *"It is much more important to keep adaptive and responsive rather than trying to figure out a specific disruptive innovation before it is happening." (Library Manager)*

It was recognised that some trends that gain attention will happen much more quickly or more slowly than anticipated, or even not materialise at all.

> *"I am curious, I am trying to see, I am trying to think now what clues can I see in today's environment. Because there is so much kind of stuff happening, things happening you read stuff, you see stuff, you know you think about you know, the government over the next 5 years, think about Brexit you think about educational change, you think about public policy, you think about […] you think about all these things and you know some of these things are red herrings they are going to go nowhere." (Library Manager)*

> *"And some stuff will come faster and some stuff will come slower." (Library Manager)*

The repeated use of the word "stuff" reflects the vagueness or slightly chaotic nature of the processes at work.

Another factor in the lack of consensus was that the trends impact differently across the sector, because HE is itself diverse. In particular, the newer, teaching-oriented institutions have a different trajectory, it could be argued, from the research-led institutions. The former, with less commitment to traditional notions of the library as a collection, and embedded in newer, less conservative institutions, may change in quite different ways from the older research-led institutions with their

investment in historically significant special collections, for example. Perhaps the future of academic libraries is becoming more divergent. It should be noted, however, that in the survey there were not strong statistically significant correlations between type of organisation and how trends were viewed.

The impact of the diversity of the sector reflected recognition of the importance of alignment to the institution: to organisational strategy but also user need:

> *"You don't have libraries that stand on their own and change over time like independent businesses or something. You have libraries that are part of institutions, and those institutions are going to change and the most important thing that will affect the library is what the institution requires of it." (Library Commentator)*

> *"I think that the long term future of many libraries is deeply tied to the vision of the long term future of the institutions that they are embedded in." (Library Commentator)*

A final factor in the uncertainty across the interviews could possibly have been the timing of the study. For the UK, it was a period of particular uncertainty, led by a government without a parliamentary majority undertaking a major and contentious constitutional change, "Brexit", as well as seeking to assert more control over HE, such as through the reorganisation of research funding and reshaping of regulatory arrangements for the sector. This coincided with the first year of the Trump administration in the USA, with all of its uncertainties. It is possible that the degree of uncertainty in answers partly reflected this wider sense of instability.

> *"I think that what changes the game for libraries isn't going to be anything to do with the work of libraries, and it is going to be to do with those larger political contexts…" (Library Commentator)*

This quote suggests that the uncertainty reflected that the real decision making point was far away from libraries themselves.

With regard to 'crises' often seen to be driving wider societal change, there was little sense in most interviews of a connection of the future of libraries to issues around climate or environmental change. Whereas parts of the library profession seem to be starting to engage with this agenda, UK

academic libraries did not seem to see a strong connection to such issues. In relation to another agenda relating to apparent crises, some responses suggested that "McDonalidisation" trends were accepted as an inevitable part of the scene. They emphasised the customer-provider relationship with students in particular. These participants saw trends such as metricisation as an unavoidable able part of current HE sector.

> *"It is very easy this word private sector gets thrown in, into many conversations and I don't quite know what it means. So let me unpick [it]. Should libraries be concerned with their users i.e. their customers? Of course they should. Should libraries be changing to make themselves relevant, in the 21st century? 100%, no question. Should libraries be looking at the way they do things, so as to be able to climb the twin peaks of efficiency and effectiveness? Absolutely. If that means they have got to be like the private sector then that seems to me to be a good thing…" (Non-Library Participant)*

However, several participants did not accept uncritically many of the trends of commodification of library services or managerialist cultures.

> *"If it is entrepreneurial in terms of seeking out new services and new ways of delivering value for a consumer and that sort of creativity if you like, I think that that should be absolutely. I don't think libraries should have any concerns about that at all. I think that is probably a good thing and is probably the only way to survive in the world that we are living in. If it is about going monetising, commoditising, every single transaction between individuals then I do think that that is [different]. There is a real tension there and I do think also there is something deep within the library sector around access to knowledge as a benefit, as a good thing in its own right and that that should be protected, and shouldn't just be for financial gain." (Library Commentator)*

In this view there was an important difference between being business-like and an underlying commitment to libraries and education. Libraries needed to be enterprising and business-like but in the service not of profit but "the value of education, the value of information, the value of libraries, the value of universities as public good." (Library Manager). The same interviewee was buoyed by the sense that students themselves recognised the value of a different ethos:

> *"The students weren't expecting us to be like the Apple Store: they knew that there was a difference. And that we were operating in different conditions, and they were really comfortable with that environment being different and not so kind of high tech slick. We are not focussed on selling we are focussed on experience." (Library Manager)*

Thus reflecting on research question two there was again a lack of unanimity. Many trends were seen as potentially transformational. This seemed to be because change was complex, unpredictable and impacted different institutions differently. Perhaps the study was conducted at a moment of particular uncertainty.

Libraries' ability to deal with the future

In this context, libraries' ability to cope with change was a central issue. Again, there was a lack of consensus, with strong expressions of doubt but also considerable optimism. Participants expressed many doubts:

> *"If only university libraries could see the excitement of change. Libraries don't like change. It's like turning around the Titanic." (Library Commentator)*
>
> *"Well I think libraries are conservative institutions: we hang on to the way that we do things sometimes past the point of diminishing returns" (Library Commentator)*
>
> *"Most library organisations don't have a very good record of tracking emerging technologies 5 to 10 years out. They tend to be very kind of in-the-box thinkers." (Library Manager)*

Such a failure was sometimes seen as linked to poor leadership:

> *"The biggest problem with leadership in libraries, library directors as a rule, want to be good boys and girls and get a pat on the head, rather than wanting to disrupt and innovate." (Library Commentator)*
>
> *"I think that we are moving too slow… and I think it is both due to the library directors and it is also due to staff – we have a lot of staff that have been working here for 20-25 years, so it is a huge skill change and the mindset change that we need to do a culture change actually so that is essential for us and that was going to be really hard, culture change is the worst ((laughs))." (Library Manager)*

This poor response to change was both because of librarians themselves, but also because of the library's location within large, slow moving institutions:

> *"We are not taking risks really with research agendas in the way we should be because people are too frightened or they are too constrained by the pressures within their institutions." (Library Manager)*
>
> *"I think the challenge for us in the education sector is that we tend not to want to move quickly if your institution is hundreds of years old, well there is a little bit of a stigma attached to chopping and changing. It is much easier to make slow*

incremental changes, but the world that we are living in is one where change is happening at an ever accelerating pace." (Non-Library Participant)

"So there is an arrogance. [This] is the problem particularly with older institutions that can't be seen to get this wrong." (Library Commentator)

Another obstacle was the pressure of current demands, leaving little room for forward looking thinking:

"They are just barely trying to stay within budget and you know subscribe to the journal packages that their faculty are demanding so they don't really have the room to be thinking about AI very much." (Library Manager)

For some it seemed that there was a danger in focussing too much on a few trends:

"An unrelenting focus on RDM and OA as the two most important things and it is something that concerns me deeply because I see this as a real unrelenting focus and I feel that other things are being left behind." (Library Commentator)

For all these concerns, there was still optimism, with a sense of many opportunities, if they are grasped:

"I think actually there will be more libraries, better libraries. I think that actually we might be coming into almost a bit of a golden age for libraries, new golden age for libraries." (Library Commentator)

"So I think it is a really watershed moment for librarians and when I say watershed I mean I think there has not been an opportunity like this, a sea change like this for 70 years or so since World War II." (Library Commentator)

"So quite a lot of opportunity I think… if AI, machine learning and robotics is actually developing in the space that librarians can take advantage of, I suspect that might be second order" (Library Manager)

Implicit in achieving this was the requirement to align to the needs of the particular institution:

"I mean fundamentally the library should absolutely be supporting and serving the institution, that first and foremost, that is its job, so anything that affects […] the way that academics are conducting research, the way that the students are coming into the university, and the way that they are being taught and everything, it all should affect the library and if it doesn't the library isn't doing its [job]" (Library Manager)

But taking the opportunities demanded more than reactive alignment to the institutional strategy:

"So I think it is about being hungry really, you know about making, being sort of actively interested in what your community, your user community or potential user community are doing, and how you can best fit your skills and your fundamental professional abilities to make their lives easier and more effective. I

> *think libraries are in a very strong position, because we are fundamentally very focussed on our users and meeting their needs, you know the best libraries. It is about being hungry continuously looking for opportunity and adapting is really important you know being efficient you know with money, resources offering services that add value, it is looking for where we can add value. Not defending things that used to exist." (Library Manager)*

> *"I think where you can see libraries that have been successful it is where library directors have adopted that sort of entrepreneurial mindset but have persuaded the institution of the direction. They have brought the institution along with them, they haven't been doing stuff on the side and hoping that the institution will notice." (Library Commentator)*

The library needed to respond to the changing behaviours and needs of its users, and also make sure that the institution recognised the importance of such changes. Libraries were, therefore, seen as having a potential leadership function within their institutions, in creating a vision of the future and in leading and managing change.

To summarise the analysis of research question 3, there was a mix of optimism and pessimism. Weak areas often revolved around library leadership, slowly changing host institutions and the pressure of current demands. Success was often seen as to be based on aligning to the institution, but proactively based on an analysis of its needs, rather than as passively falling into step with formal policy.

Time horizons

A fundamental aspect of a conception of the future is what time horizons people think in terms of. So the fourth aspect of academic libraries' stance towards the future investigated in this study revolved around the implicit time frames that interview participants used. Our questions deliberately prompted interviewees to think in terms of 10 years, as we speculated that this was on the limit of what they would be thinking of. Their responses revealed that they operated on a variety of time horizons, partly depending on what the issue was. For example, buildings are constructed for flexibility so they can be used for a 30-year life. Yet long-term thinking was unusual. Some thought thinking in terms of 10 years just about possible, but saw problems with it:

> *"I mean I try to look at least you know 5 or 10 years into the future... but I also am aware of the fact that I can't even predict how fast the future will come so it is hard to even answer that question right." (Library Manager)*

A very common reference point was the 3-5 years of institutional planning cycles, and within which some prediction seemed possible.

> *"It is generally 3 to 5 years if you are planning" (Library Manager)*

> *"Thinking about technology I can't see any further than that. I think, all the advice I have received and all my observations are if you start to think further ahead than that it is just impossible, things change." (Non-Library Participant)*

Some participants felt strongly that the focus should be on the present because of things happening now that needed a response:

> *"I don't monitor the future; I think the activity is pointless. […] [Libraries] should be concentrating on what their users are doing right now, rather than looking into the future and trying to navel gaze. So I think libraries are obsessed with the future. […] I think it makes us feel better because librarians feel strategic, if they are using the word future." (Library Commentator)*

It is paradoxical that trend spotting could be construed as navel gazing, yet a number of participants seemed to be in tune with this comment, perhaps because at least some trend spotting seemed to be about addressing the issue of how to ensure the survival of the library. As already observed, most answers to the question about three key trends actually referred to trends currently already being felt in how users behave, but which were yet to fully work themselves through, rather than distant change. There was a frequent sense in interviews of a belief that current change tends to be already happening.

> *"I am not sure that I see anything absolutely new or different coming along. I think what we will see is almost an intensification of […] trends that are already there […] I think a sort of intensification of the trends in the scholarly communications." (Library Manager)*

> *"Because some of the future stuff that comes out is about things that are already happening that they just didn't know, because they didn't talk to enough people." (Library Commentator)*

Again, reflecting on research question 4, views varied on the appropriate timeframe for considering futures, but most time frames were relatively short.

Discussion

The interviews revealed a strong but complex relationship between libraries and the future. Some emphasis was given to continuity within the ancient institution of the university, and an enduring conceptualisation of the idea of a library, widely understood across society. For others there was a sense of change in how demands were met, if not in the fundamental nature of what libraries do. Others saw change as continuous and sometimes threatening. A few felt that now was a key moment of change, or at least uncertainty. A number felt there was an urgent need for change, but that libraries could influence its direction.

There was a sense of many wider trends at work that could affect libraries, but this was not articulated with any consistency. There was little consensus about which were the most important trends. Most of these trends were present now and already working themselves through, rather than completely new developments on a distant horizon. However, it was also likely that librarians under-estimated some key trends such as AI. It was recognised that trends are complex and interconnected. Change was also often perceived to be faster than before. These issues suggest why libraries struggle to manage their response to the future effectively.

The importance of alignment to the host institution, and the variety of paths of travel this implied for different libraries, was given emphasis. Yet this was more about responding to the changing needs of the institution and its communities, such as changing patterns of student and researcher information or learning behaviour, than simply aligning to the explicit formal strategy of the university. It was also frequently emphasised that the approach to the future had to be proactive and should be about offering leadership to the organisation, not just alignment in a reactive sense. Many reflections expressed a lack of confidence in libraries' ability to change, yet there was considerable optimism and a sense of opportunity.

The time horizon most participants seemed to think in terms of was located in the present and changes that were currently working their way through -- not some distant future, over the horizon. Thinking beyond frameworks for planning of 3-5 years seemed to some highly speculative.

Thus, interestingly, there were a very wide range of views on the questions posed in the study. The analysis did not uncover systematic differences between the three groups of interviewees, apart perhaps from non-library participants' willingness to more explicitly contemplate the dissolution of libraries as currently constituted (even if that was not their view of the likely future). What might be thought of as the most uniform group of participants, library directors, did not themselves have a common view on the future. This reinforces the sense of a profession in a state of considerable uncertainty. The proliferation of literature about key trends may be as much a cause of uncertainty as a cure for it.

Many of the practices and discourses around the future identified in the literature review to this paper are present. The dominance of the planning horizon of 3-5 years reflects the influence of organisational strategy processes on how academic libraries view the future. The notion of alignment is one of the key concepts in strategic thinking. But it is interesting that this was mostly understood to entail the library aligning to the perceived needs of its university communities, rather than simply aligning with a formal institutional strategy. Professional judgement in analysing how changing behaviour will impact aspects of learning and research relevant to the library are at the heart of alignment, not simply a mechanical process of adopting a wider organisational strategy.

The importance of technology was often mentioned. Though its significance was not usually understood in a technologically determinist sense, technology was nevertheless often seen as a locus of change. Yet in acknowledging continuity (especially in the library as a space) there was also an element of the "shock of the old", the persistence of old technologies alongside newer ones. VUCA was well represented in feelings of the volatility of the current environment and uncertainty

about identifying key trends, as well as the complexity and ambiguity of their effects. Participants did not think passively about the future: most saw potential to influence it in positive directions.

The sense of the increasing interconnectedness of change itself made it hard to read trends and greatly increased uncertainty. It could be argued that in this context, relatively simple tools like PESTLE seem inadequate. This is because they tend to separate trends across different domains, when in fact changes are increasingly interconnected. One can think in terms of *nexuses of change* such as around:

- Datafied scholarship – combining trends such as open access, open science, text and data mining, artificial intelligence and machine learning, the internet of things, digital humanities and academic social networking services or
- Connected learning – incorporating changing pedagogies, learning analytics, students as customers, social media, mobile computing, maker spaces and blurring of space uses.

It may be here also that thinking in terms of open-ended new paradigms is productive. In stark contrast to "predictions" they can be seen as narratives about the future that mobilise interest [35]. Another approach would be to adopt somewhat more sophisticated models of change such as causal layered analysis [36].

There was little sense of how academic libraries relate to sustainable development and the potential global crises around water, food and energy. This raises the question of whether academic librarians have enough of a vision of how they connect to wider societal challenges or clear understanding of their connection to change beyond the sector. Familiarity with issues associated with the McDonaldisation of libraries was, however, more apparent amongst some interviewees' comments. There was a somewhat equivocal attitude to such changes, with many seeing them as an unavoidable part of the current HE environment, but still often still retaining a more community-centred sense of the role of libraries for their users.

Conclusion

The library literature is preoccupied with responding to change. There are many studies seeking to identify key trends. Yet reflection on how the academic library sector relates to the future is relatively sparse. Thinking about this can help us understand libraries' fundamental stance towards futures and their ability to respond to change at a deeper level. This study identified some of the key features of how academic libraries relate to the future.

The analysis also confirmed the presence of many of the discourses and practices identified in the introduction to the article (strategic thinking, technology-focused thinking, VUCA, crisis thinking), though this is not to say there may not be other ways of relating to the future in the sector.

It was clear from the interviews that participants had a strong sense of the need and possibility of shaping the future. Although alignment to the institution was important, this was often understood as alignment to the needs of the communities in the institution and making these changing needs understood within the institution as a whole, rather than simply following top down strategy making. This suggests the need to think in a different way about the future, beyond the discourses of strategic management. Longer term thinking is needed. There is a need to create spaces and time to think differently about the future. This might be done collaboratively, to spread the risk. IFLA's work attempting to create a consensus around key trends is a useful reference point [16]. Yet collaborations probably need to extend beyond the library world, because of the complexity of change. It is probably the case that the profession could be better at thinking about change, using more sophisticated models than simply listing trends. It might also be productive to think in terms of developing more "paradigms", rather more open-ended conceptions that capture a particular dynamic, through discussing which, the profession can explore the nature of change and its orientation to the future. The growing literature on foresight is suggestive of concrete approaches to influencing the future [36].

Limitations and future research

In developing such new practices, there is more research that could be usefully undertaken. This paper is just a snapshot of views, taken at one time, with a preponderance of respondents from the UK. Since the interviews were based on a relatively small, broad sample, more data would be needed to identify the frequency with which particular views of the future are held in the wider population, e.g. with differences between those in research intensive institutions and others. It would also be fascinating to see if there are national differences in attitudes to the future, and how views change over time. The analysis of the survey conducted in the study did not find major differences in response by age, but the number of those from younger age groups was small. Because most of the interviewee participants were quite senior, and consequently often in their middle-age, their responses may reflect personal time horizons. Several participants commented on their difficulty in considering the future beyond their own retirement. It would be interesting to see if younger professionals had a different vision of how to relate to the future. It would also be useful to conduct similar studies to the present one among other information professions, and professions beyond the sector, to examine differing concepts of the future as a salient aspect of professional identity.

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