

Beyond codes of ethics: how library and information professionals navigate ethical dilemmas in a complex and dynamic information environment

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Abstract

This paper reports on a research project that investigated how library and information (LIS) professionals experience ethical dilemmas, with particular reference to the impact of new technologies, sources used to assist ethical decision-making, and the contribution case studies can make to ethical understanding and decision-making. Data was collected through interviews in Britain, Ireland and Australia with LIS professionals, educators, and representatives of professional bodies. The findings identify the main types of dilemma raised and discuss cases indicative of each type. They suggest that new technologies do not appear to change ethical principles but, when experienced in the workplace, substantially change the factors the professional has to evaluate. They also suggest that relevant codes of ethics are satisfactory on traditional library issues of access and confidentiality, but do not address the ethical challenges of current and potential digital environments. Professional associations appear more familiar with codes of ethics than practitioners although practitioners show high levels of ethical awareness, suggesting associations need to communicate more with their members and provide tools that are more useful in the workplace. Case studies are seen as a good way to educate and engage practitioners because of the complexity, conflicts and dynamism they can present.

Keywords

Information ethics; library ethics; codes of ethics; ICT; digital transition; case studies.

1. Introduction

This paper develops previous work which concluded that ethical dilemmas exist within the library and information services (LIS) sector (Thornley et al, 2011) but that ethical concerns may not be particularly important for all library and systems managers when they implement new technologies (Ferguson et al, 2015). Libraries and related agencies are vital for disseminating information to a wide audience, and developments in Information and Communication Technologies (ICTs) are transforming how this information is processed and accessed. We discuss whether such developments substantively change the nature of ethical dilemmas in LIS and, if so, on how this affects the provision of ethical guidance to professionals. This paper contributes to the wider and long-standing debate about the ethical issues raised by ICT (Watson and Pitt, 1993; Floridi, 1999; Weckert, 2013), and the nature of responsible ICT research and innovation (Stahl *et al*, 2015).

This paper presents findings from interviews in Britain, Ireland and Australia with information professionals working in agencies ranging from large academic libraries to small specialist collections, which investigated participants' professional experience of ethical issues. Interviews were also conducted with representatives of professional associations and those involved in relevant teaching roles. The research questions which we explored through these interviews grew out of previous work undertaken by the authors in the field of information ethics, supported by a literature review of key writers in the field. They are:

How do LIS professionals experience ethical dilemmas in the information environment?

Do new technologies raise new ethical issues for LIS professionals?

What resources do LIS professionals consult to assist ethical decision-making?

What can case studies contribute to ethical understanding and decision-making?

The paper identifies the main themes which were distilled from these interviews, analyses the complex, and sometimes contradictory, nature of the issues raised, discusses the influence of ICT developments, and examines the usefulness or otherwise of codes of ethics in assisting LIS professionals determine the 'right' thing to do. It questions whether our current codes of ethics are fit for purpose in the complex and changing world of digital information. This issue has also been raised in the context of other professions; for example, in Díaz-Campo and Segado-Boj's (2015) assessment of whether codes of ethics within journalism had adapted to the new digital environment. Finally, some suggestions for alternative means of providing ethical education and guidelines are outlined. The aim is to provide increased understanding of how these issues are currently dealt with to inform what can be done to help LIS professionals deal with these dilemmas in the future.

2. Literature Review

2.1 Ethical dilemmas

Ethical dilemmas are taken to be situations in which there are conflicting ethical obligations, and doing one right thing has the potential to cause harm in another way. An example would be where a lifeguard can only rescue one out of three people he can see in trouble. Who does he save and what kind of decision-making process does he go through? Within philosophy this is sometimes seen as a deontological issue in terms of following absolute ethical principles, with no room for any form of subjectivism or relativism. A famous example is Kant's (1785) argument that even if a murderer came to your door to kill one of your family it would still be wrong to lie and say they were not in, as lying is always wrong. A more consequence based approach can be seen in Utilitarianism (Bentham, 1781), which argues that you should assess the good and bad outcomes of each potential decision and take the one that provides the most happiness to the most people. In practice absolute principles can appear unhelpfully dogmatic, and assessing the consequences begs the question of on what basis and how, can one measure and investigate how consequences are experienced.

Vallotton Preisig *et al* (2014, p.12) state that:

'ethical conflicts and ethical dilemmas appear wherever information is generated, organized, stored, distributed and consumed'

giving a variety of reasons for dilemmas and conflicts, namely ideological dogmatism, totalitarian attitudes, religious fundamentalism, individual benefits, economical interests, political interests, and conflicting ethical values, such as the incompatibility of unrestricted access to information and privacy. Some professional codes have conflict built into them; for example, an international comparative study by Foster and McMenemy (2012, p.260) found codes that expect librarians to be loyal to either employer or state, 'which could bring priorities into conflict'. Samek (2014, pp.147-8) highlights a new LAC (Library and Archives Canada) Code of Conduct which promotes a 'duty of loyalty' to the government that potentially conflicts with the International Federation of Library Associations and Institutions code (IFLA, 2012). Luo (2014) identified five types of ethical dilemma raised by reference librarians: copyright; confidentiality and privacy; intellectual freedom and censorship; equitable access to information and service; and conflict of interest.

Vallotton Preisig *et al* (2014, p.12) state that resolution of ethical dilemmas is complicated, noting, for instance, that US librarians faced a conflict between the legal requirements of the USA PATRIOT Act (2001) and the American Library Association's (ALA) commitment to client privacy. Professional

associations in the information sector will generally advise members to observe the law where it conflicts with one of the profession's ethical principles. However, Preer (2008, p.201) notes that this changed in the USA following the terrorist attacks of 11 September 2001 and the federal government's response, which upset the accepted balance between the 'ethical obligation to protect patron confidentiality' and 'the need of law enforcement officials for information'.

It may be necessary to find a balance between law and ethics because, while ethical decision-making is grounded in morality, law prescribes forms of behaviour 'for the purpose of fulfilling a societal requirement' (Buchanan & Henderson, 2009, p.74). The potential conflict between ethics and the law was given prominence when a court granted the Police Service of Northern Ireland (PSNI) legal access to research data generated by the Boston College Belfast Project. This project interviewed people directly involved in paramilitary violence in Northern Ireland, who had been promised that these interviews would only be released when they were dead (McDonald, 2015).

Another case demonstrates the limits to which a commitment to protect client confidentiality might stretch. A man posted a suicide note on a message board which was traced by the IP address to Orem City Library in Utah. The Library was contacted by a concerned member of the public. The City librarian asked an IT specialist to trace the message and called the police, who identified the individual using date of birth, which the Library provided, and their own arrest records for heroin use. The intervention saved the man's life.

Gordon-Till (2002, p.49) refers to the then Library Association in the UK speaking out periodically against restricting access to information, for instance, refusing to stock items such as Salman Rushdie's *The Satanic Verses*. Such cases demonstrate a conflict between a strong professional value (provision of access to information) and an obligation to society (sensitivity towards a section of the community) and suggest that professional associations need to be aware of the conflicting obligations members face.

Ethical dilemmas in classification sound unlikely but classification affects how information is accessed and even the way in which people 'understand and receive the information that they access' (Mathiesen & Fallis, 2008, p.18). Cann Casciato (2011, p.408) notes the case of a directive from a university president to the library director specifying 'that all materials for Creationism and Intelligent design be reclassified to the science section'. The ethical issue is the need to balance professional ethics against obligation to one's organisation, however unreasonable one might regard a management directive.

Senapatiratne (2013) discusses the potential conflict for librarians in theological institutions in terms of the ALA code of ethics and the institutional guidelines of the librarian's employer. He concludes that, though this conflict has been frequently raised by theological librarians, he can see no conflict between institutional and ALA guidelines and suggests that problems have arisen only when the librarian feels that their personal religious convictions should inform their professional role.

2.2 New Technologies

Juznic *et al* (2001, pp.75-6) refer to a

'considerable debate as to whether new or substantially different ethical dilemmas are created as new technologies are introduced. In librarianship the extensive use of information technology seems to require a serious rethinking of codes which were devised in an age dominated by print.'

Web filtering, for example, could be seen as a new form of censorship, which challenges the commitment of LIS professionals to information access (Trushina, 2004). Hodson (2009, p.1741) claims the digitisation of archival material and provision of web access 'profoundly increases the potential risk to the privacy of those represented in the documents'. However, an increase in risk does not constitute a qualitative shift in the nature of the ethical dilemma: Hauptman, in

conversation with Buchanan, believes that while the technologies have changed, the dilemmas faced by information professionals are not significantly different (Buchanan, 2008).

One of the areas in which new technologies have made a significant impact is that of privacy. Digital content delivery is seen as an area that puts library users' privacy at risk; for instance, 'databases and e-readers create records of users' intellectual activities that can include search terms, highlighted phrases, and what pages the individuals actually read', records that can easily be aggregated (Caldwell-Stone, 2012). This is not a new ethical dilemma, but it does differ from previous cases, in that there is no obvious compromise: librarians can either offer digital content 'warts and all', or offer no service.

2.3 Sources of Information

Luo's study of reference librarians found that 58% of respondents consulted colleagues for guidance on ethical dilemmas. The other main sources mentioned were institutional ethics policies (26.9%), the ALA Code of Ethics (25.9%) and similar situations in the published literature (14.2%). Respondents voiced the need for more training, support from colleagues, support from library leaders, clear and consistent ethics policies, communication about policies and, finally, easily accessible, documented policies (2014, pp.178-9).

Foster and McMenemy note the importance of codes of ethics that professionals can follow, but also refer to commentators, such as Samek and Rothstein, who criticise these codes for being too 'imprecise' or 'too general and lacking relevance to the situations facing professionals on a day-to-day basis' (2012, p.252). Juznic *et al* refer to the 'impact of ethical codes on forming the professional personality of a librarian, and their influence on the librarian's relationship with colleagues, users and society in general' (2001, p.75). However, LIS professionals need to understand the thinking behind the codes and their development: without this, 'the codes are seen as finished and foster dogmatic beliefs' (Rubin & Froehlich, 2011, p.1750).

Codes of ethics on their own are not seen as a sufficient resource for LIS professionals (Sturges, 2009). Mathiesen and Fallis (2008) suggest that lists of values are only a starting point, which do not explain how to behave when the principles promote conflict. Indeed, the 2012 IFLA Code was 'not intended to be a set of goals that individual librarians sign up to' but is better seen as a reference point 'for national associations concerned with revising or creating national codes of ethics'. IFLA's director of policy and advocacy stated that 'ours is a document intended to promote professional reflection' (Charlton, 2012, p.14). In the field of records and archival management, Cox suggests (2008, p.1132) there is a need for information professionals 'to go beyond the business of creating ethics codes and instead ... to consider just what roles they really play within their employing institutions'.

2.4 Case studies

Vallotton Preisig *et al* refer to plans to popularise the IFLA Code, including the development of training materials, introduction to the Code as a means of ethical reflection and standardisation, and the collection of case studies covering ethical issues and challenges in the workplace. They stated that training materials were being drafted and that plans to create a database of case studies were underway (2014, p.16).

Case studies are seen as key to bringing 'the complexity of contemporary ethical issues in the field of LIS' to a practical and manageable level' (Buchanan & Henderson, 2009, p.6). Buchanan and Henderson see the case study as

'a viable way to raise awareness, to question standing beliefs and perspectives, and to assume alternative roles as part of a larger decision-making process'

and an understanding of ethics as 'an essential proficiency' (2009, p.20).

The case study method is seen as a means of relating 'principles to practice' and making 'concepts tangible and meaningful', arguably 'the form of guided-discussion learning most appropriate to the study of professional ethics' (Pemberton, 1995). Texts on library ethics have made wide use of case studies to contextualise issues; for example, Preer (2008) and McMenemy *et al* (2007). Case studies are of particular value in the educational sector (Fallis, 2007; Carbo, 2008) and have been used to provide ethical context to a range of issues for example, in the teaching of reference work (Ellis, 2014), which provide value to students, who are generally unable to check theoretical knowledge against practical experience.

Some professional associations have included case studies on their websites with a view to assisting members in their ethical decision-making, notably: the Australian Computer Society (2014) and the Society of American Archivists (nd). Tankam and von Rütte (2014, p.119-20) note the use of case studies to 'illustrate critical situations of archival practices or situations of archivists facing ethical dilemmas'. Saab (2010, p.14) describes the development of an information ethics project that was aimed at grounding 'complex, abstract frameworks in real-world technological contexts' and used virtual gaming technology to isolate 'decision points' in a scenario, allow participants to 'track the reasoning behind their choices' and provide implicit advice on the frameworks they used.

3. Research Design

3.1

The literature review highlights the fact that while the nature of ethical dilemmas faced by LIS professionals has been evaluated, there is limited exploration of how LIS professionals actually experience and deal with these dilemmas in their working environment. A more nuanced understanding of how LIS professionals experience ethical dilemmas is therefore required, along with an investigation of the impact of the digital environment.

The investigators used semi-structured interviews to gather the research data using the research questions provided in the introduction. Information professionals and educators were first asked to discuss cases in which they had faced ethical dilemmas in their work, and how they resolved them. Participants generally discussed cases which they themselves had encountered, but occasionally gave their views on ethical dilemmas in the public domain, which provided additional insights into how people perceive ethical dilemmas. Most participants were interviewed individually but in a few cases focus groups were used, which provided richer content through their interaction.

Interviews were conducted in Britain, Ireland and Australia with LIS professionals; relevant representatives of professional bodies, people working in digital humanities and repositories, and information management academics and researchers. This provided multiple perspectives within the broad category of information work. The relatively high level of responses from academic librarians reflects the fact they were generally far more willing to be interviewed than, for example, public librarians. The tables below show the total number of categories of interviewees and their distribution across agencies:

Category	No
LIS professionals	41
Academics/researchers	11
Archivists/records managers	7
Professional associations	6
Information studies students	5
Dig. Humanities/repository specialists	4

Information consultants	2
Information Commissioners	1

Table 1. Categories of interviewees (total=77)

Agency Type	No
Academic libraries	29
National libraries	6
Special libraries/knowledge management	4
Public libraries	2

Table 2. Distribution of LIS professionals (more than one interview may have taken place in an institution)

3.2 Data analysis

In an interpretive approach to the analysis of the interviews, thematic analysis was used to identify, analyse and report patterns within the data (Braun & Clarke, 2006). Analysis was initially top down, based on the themes raised in the research questions, then key ethical dilemma categories were identified and the cases discussed in the interviews were placed in the category that most closely matched, with a small number (fifteen cases) being placed under more than one category where there were clear multiple issues.

4. Findings

4.1

This section provides a summary of the ethical dilemmas and conflicts raised by participants, identifies and quantifies the types of dilemma, and analyses a selection of case studies, one representing each of the types of dilemma.

A total of eighty-six cases were discussed by participants. Of these, eleven were already in the public domain, leaving seventy-five which appear to be undocumented. These are tabulated and described in Appendix A, which also identifies dilemma type and the significance of ICT. The levels of ICT significance used were based on the extent to which ICT enabled the dilemma and are: not significant, significant and critical. Appendix B does the same for the eleven documented cases.

Most of the cases involved a clear ethical dilemmas and/or conflict. However, eleven were considered to represent little or no dilemma (2, 32, 35, 54, 62, 64, 66, 67, 68, 73 and 74) and a further five cases were considered to be more relevant to the field of workplace, rather than information ethics (24, 29, 36, 37 and 65).

The following table summarises the types of dilemma or conflict raised by participants and which were considered relevant to information or library ethics.

Description of dilemma	No	Case references (Appendix A)
Professional ethics v organisational ethos/requirements	15	3, 4, 5, 6, 7, 20, 25, 26, 42, 45, 46, 50, 60, 63, 70
Professional ethics v social obligations	14	8, 13, 14, 15, 16, 18, 27, 33, 41, 49, 55, 58, 61, 71
Professional ethics v potential harm	11	1, 8, 13, 14, 17, 23, 27, 28, 56, 57, 71

Information access v censorship	10	3, 9, 10, 12, 17, 19, 33, 56, 59, 60
Information access v privacy	10	5, 17, 31, 34, 39, 40, 47, 48, 51, 75
Ethics v law	6	30, 44, 47, 49, 53, 71
Information access v intellectual property	5	21, 22, 43, 52, 69
Professional ethics v personal convictions	1	11

Table 3: types of ethical dilemma described in new cases

There was significant overlap between cases demonstrating a conflict between professional ethics and social obligations and those demonstrating a conflict between professional ethics and potential harm, as preventing harm to individuals could be regarded as a social obligation.

New technologies were a critical factor in twelve of the fifty-nine cases (17, 31, 34, 39, 40, 44, 45, 46, 47, 48, 51 and 64), with a further ten suggesting technology was a significant factor (1, 6, 13, 28, 33, 49, 52, 54, 57 and 60). That is, new technologies made an appreciable difference to the ethical dilemma in just over 27% of cases.

On the question of the resources LIS professionals consult, there was very little reference to codes of ethics as such, other than from participants from the four professional bodies, who were generally aware of IFLA's 2012 revision. Representatives from two bodies referred to the need to revisit their own national codes with a view to aligning them with the IFLA one. There was generally, however, a strong awareness of the ethical principles informing the professions.

There was some reference to the professional associations representing a source to which members could turn, although one of the bodies said it received relatively few ethical enquiries: approximately one per year. Members of the association tended to 'think ethics' only 'when things go wrong'. They are 'genuinely busy' and ethics is an 'area that tends to be crowded out.' Nonetheless, it is part of the reflective practice that the association encourages:

'If you are claiming to be a professional ... you also have to show that you are a thinker and that you actually think about why you are doing things and why they matter and how you can improve them. That's a reflective practitioner and that's where ethics, to me, should come in'.

Each type of dilemma is discussed below with reference to one indicative case and how it was experienced by the LIS professional. Although interviewees made very little reference to the 2012 IFLA Code, it has been used as a reference point for our discussions since it is a current distillation of the ethical principles upheld to varying degrees by the Federation's member associations.

4.2 Information access versus censorship

This issue goes to the core of library and information service since it is regarded as a barrier or threat to information access. It is highlighted in the opening section of the IFLA code 'Access to Information'. Clause 1.2 states

Librarians and other information workers reject the denial and restriction of access to information and ideas most particularly through censorship.

Digitisation of sensitive special collections creates pressing ethical dilemmas for LIS professionals. This was demonstrated in case 17, in which material relating to freak shows was digitised, enabling web access. In this case, 'freak show', is categorized as 'performance', with freak show being described as 'human oddities'. Such a collection is relevant to scholars and can offer significant historical insight into, for instance, the portrayal of historical attitudes to disability. Durbach (nd) argues freak shows had significant educational and scientific value in the nineteenth century and it would be an oversimplification to dismiss them 'as either merely prurient or entirely exploitative'.

On the other hand, such a collection could offend people with disabilities, and reinforce derogatory and hurtful attitudes which should not be in the public arena. In the case discussed, it became apparent that there is also potential for misuse if material is openly available online; for instance, the picture of the 'fat lady' appeared on a slimming advertisement; a donor, now in her eighties, found a picture of herself in a soft porn magazine; and staff found images from the collection on S&M sites.

Technologies make a difference in such cases as librarians and archivists have less control over access than they did with physical collections. Once something is published on the web, it becomes universally accessible. Where material is already in the public domain (for example, postcards), this may not be regarded as an ethical issue; however, publication of photographs may offend individuals who donated physical material with no discussion of future online access (a concern for interviewees). The issue then becomes whether or not to create a 'closed access' digital collection, which flies in the face of facilitating information access.

4.3 Information access versus privacy

Privacy and confidentiality are key principles for LIS professionals; section 3 of the IFLA Code states

'The relationship between the library and the user is one of confidentiality and librarians and other information workers will take appropriate measures to ensure that user data is not shared beyond the original transaction'.

Client confidentiality is taken very seriously, underlined by one interviewee who referred to a murder enquiry in which a library refused to give police the access they wanted (77). As with the previous example, two key ethical principles, embedded in professional codes of ethics, come into conflict and there are no clear guidelines for resolving the conflict.

In case 79 a public authority was required to give access to a member of staff's personnel file, highlighting a legal conflict between data protection and freedom of information legislation. The case was raised by a library manager in which Culture and Sport Glasgow (CSG) received a request for information about an employee's previous positions and qualifications. The requester believed he had a right to seek the information because of the employee's role with children, which 'may occasionally involve acting in *loco parentis*', and parents' 'legitimate interest in satisfying themselves in relation to [that] role' (Scottish Information Commissioner, 2008). CSG refused to disclose the information on the grounds that it was personal information and that disclosure would be a breach of data protection principles. Following an appeal, the Scottish Information Commissioner found that CSG had failed to comply with the Freedom of Information Scotland Act 2002 and required CSG to provide the requester with details of the employee's qualifications and experience, ruling that in this case the principles of transparency and accountability outweigh the individual's right of privacy.

The ruling goes against the grain for many in the LIS sector, which is one of the aspects that make it a particularly interesting case study. It illustrates that, while our ethical principles provide an excellent framework for professional practice, we need to take a case-by-case approach, a point reinforced by a second interviewee. It also shows that key information legislation itself is conflicted, and that an ethical decision may be taken out of the hands of the professional.

4.4 Information access versus intellectual property

This type of dilemma again requires LIS professionals to choose between different ethical principles promoted by their professional associations. While they are committed to 'support for the principles of open access, open source, and open licenses' (IFLA 2012, 4.1), there is a qualifier in the IFLA Code (4.4)

Librarians and other information workers recognise the intellectual property right of authors and other creators and will seek to ensure that their rights are respected.

The potential conflict between information access and IP rights emerged in a discussion (21) about corporate governance and legal compliance. Interviewees spoke about 'potential for a more co-ordinated approach' and the need to play off law and compliance against ethics as they often appeared to be in conflict. They referred to the diversion of resources in pursuit of compliance and suggested that 'any compromise with compliance is likely to be for ethical reasons'.

The case presented was that of copying something into Braille. The library concerned did not have sufficient resources to meet demands for special needs, and since there is no disabilities provision in the copyright legislation then arguably it is 'ethical to ignore copyright'. How, then, does one resolve the potential conflict between disability compliance and copyright compliance? Disability legislation talks about 'reasonable adjustment' but there also needs to be 'reasonable use of resources'. It could be argued that purchase of a Braille copy of music would be unreasonable and that (illegally) copying music could be ethical in this instance. As one of the previous examples (22) demonstrates, however, LIS professionals also acknowledge an obligation towards publishers so, as well as the conflict between compliance and ethics, there are also competing obligations towards publishers and disabled people. One of the participants took a consequentialist approach to this conflict asking: 'what are the consequences of an illegal Braille copy?'

4.5 Information access versus social obligations

Case 76, which is about filling volunteer LIS positions, raises an interesting dilemma between social obligations towards community libraries, and collective responsibilities towards a professional association fighting the cuts that leave community libraries inadequately staffed. The context is cutbacks of c.28% in the central government grant to local authorities over a three to four year period, with a corresponding cut in library services of c.30%. Many local authorities have stated they cannot keep the current infrastructure and would focus on core libraries that supply 80% of 'business' and keep them 'properly staffed'. It would be left to local communities to run libraries that lie outside the 'core'. The query, which was directed to the professional association, was: 'Should we or should we not volunteer under these circumstances?'

The Association recently intensified its opposition to government cuts, however, its long-standing policy has been to recognise 'the value of volunteers working alongside staff to provide additional support while opposing the replacement of staff by volunteers to save money' (Wade, 2015). Its response in this case, which took the 'public good' as its starting point, was summarised by the participant:

'ultimately something like that has to be a personal decision depending on the motivation and ... the thought that you have put into it and, were it ever to come to some form of ... law or some form of disciplinary process ... it is whether it falls within the concept of what a reasonable person could decide, not whether I think it is right or wrong'.

Interestingly, the interviewee added: 'Ethics is not about black and white, it's not about right and wrong; it's often about the best balance between often two not very attractive alternatives.' The Association does not appear to have provided strong guidance on how to find the balance.

4.6 Privacy versus potential harm to individuals

The dilemma came to the fore in case 8, in which a school librarian noticed that a child had been reading about sex abuse. The librarian normally regards what children are reading as 'off limits' and does not inform teaching staff. A child reading about sex abuse, however, raised alarms. The outcome was that 'the person with pastoral responsibility for that individual child was alerted.' In this case, therefore, 'confidentiality would not be the predominant factor' although the interviewee added that this was 'obviously challengeable', and that one would need to be aware of the legal basis. The interviewee who raised this case also referred to case (82), in which a library manager helped save the life of a suicidal client. Such cases help to test the limits of LIS professionals' commitment to protection of client confidentiality, where there is potential harm to that client.

4.7 Privacy versus organisational ethos or requirements

In these cases the LIS professional experienced a dilemma in which their obligations to their core customers were in conflict with the organisational interests. Cases 4 and 7 (from one participant) provide an informative comparison, with contrasting scenarios. In case 4, the Library turned down a pre-Turnitin (plagiarism detecting software) request from an academic to access a student's borrowing data, based on suspicion of plagiarism, as the Library was 'protecting the individual in that circumstance ... as an ethical standpoint, it was quite clear-cut'. The interviewee was conscious of the injustice in plagiarism, but also that borrowing records cannot be used as evidence: the student 'might have taken the books out but there's no evidence to say he looked at them ... It's up to the academic to prove the plagiarism.'

In contrast, in case 7 a student's tutor was informed voluntarily about attempted thefts of library material, overriding any commitment to observe client confidentiality. The Library security system had been triggered, and staff found all the posters in a particular section of educational practice books had been 'systematically taken out', rendering them worthless for other students. The Library manager informed the tutor 'as part of the disciplinary process ... I think that is the ethical thing'. The University initially considered withholding the student's degree, but instead noted in the student's file that it could not supply her with a reference – in some respects worse than withholding the degree since it effectively blocked a career in teaching. There was some discussion about obligation to the institution, but obligation to other students also came into the mix.

4.8 Information access versus organisational ethos or requirements

In these cases LIS professionals experienced dilemmas in which a key ethical principle of their profession conflicted with priorities of the parent organisation, or of the library service itself. One of the focus groups highlighted a case in which a university library agreed to embargo open web access to theses for up to five years on the grounds that making a thesis accessible straight after the award of the research degree may jeopardise publication (case 6). There was no conflict for the library, in the sense that it was following established University policy, however, for the librarians there was a perceived conflict in trying to balance 'freedom of access, a core professional principle, against institutional pressure'. According to interviewees, the library often finds itself pressured on the one hand by academic staff and the institution but, on the other, is increasingly under an obligation to provide open access for research which is often publicly funded. The Research Council in the UK mandates access to research but the focus group noted there was nothing concrete at that time on theses. The group also raised the question of the 'ownership of theses' – the content is owned by students but the 'container', essentially 'an examination script', is the property of the University.

4.9 Ethics versus law

LIS professionals could find themselves at odds with the prevailing government and legal framework. This can be because the government views certain material as politically sensitive or potentially harmful, and wants to stop or restrict access to it, as in case 30, where the Nigerian Government instructed librarians not to acquire material from Israel. There was no discussion of how one might resolve such a conflict but the case was provided as an example in which it was felt that the ethical issue should arguably be stronger than the law. Like the cases Preer (2008) mentions, decision-making can be problematic: LIS professionals should observe the law, but what if one is faced with laws one regards as unjust? In some criminal cases the context is highly politicised, such as in the Boston College case (80), discussed earlier, concerning access to research data by the PSNI. The case raised awareness in the academic and research community of the potential for the law to override what seems a clear ethical principle. As one of this study's participants put it, the Boston case demonstrated that one needs to be up-front with research participants: 'we will do our best... *but*'.

5. Discussion

5.1

This section discusses our findings by first providing an overview of key insights, then analysing the data in terms of our research questions, and finally demonstrating how our work builds on previous understandings of ethical dilemmas. A key insight was the importance of context in terms of shaping how dilemmas were experienced. The context of the profession has changed considerably in that some of the issues spread beyond the traditional LIS context to wider issues of how information and research data are used. It is likely that these types of issues will become more common given the increasing role of libraries in managing research data (Tenopir *et al*, 2013).

The breadth of interviewees also reveals interesting differences in the focus of ethical obligations depending on the nature of the profession. Librarians generally felt obligations to both the creator of the information (see case 22) as well as the user, whilst those working in archives felt a stronger obligation to their users and were generally less concerned about the rights of those who had provided the information (case 69). ICT has also changed the nature of the LIS profession and, in some cases, qualitatively changed the nature of ethical dilemmas. Finally, the international aspect of the research revealed that the geographical and cultural context of a library can influence what is an ethically appropriate decision. In case 59, for example, if a library in Northern Ireland had held anti-Royal family material this would be a very divisive issue, whilst in most other parts of the UK it might cause only a slight upset for some people.

5.2 How do LIS professionals experience ethical dilemmas in the information environment?

Interviewees were generally happy to have the opportunity to 'take time out' to reflect on professional and ethical aspects of decision making, providing evidence of the reflective practice fostered by professional associations. One interviewee contrasted case 4 (suspected plagiarism) and case 7 (vandalised books and attempted theft), making the interesting distinction that the latter concerned 'behavioural information', as distinct from 'borrower information'. If we had looked only at the outcomes of these decisions rather than discussing the processes, we would not have found out that information professionals make such distinctions.

The conflict that occurred most often was that between professional ethics and organisational ethos or requirements. There were instances (case 7) in which obligation towards the organisation took precedence over a set of professional standards; for example, see cases 6 and 25. In some cases, however, professional ethics were judged more important than organisational ethos or requirements, notably case 4, but also case 26, in which a public records office retained a report along with the investigation that went into it, against the wishes of the public authority that was the subject of the report, and which wanted only the report to be retained.

In the two cases of potential harm to individuals (8 and 82), social obligations took precedence over professional commitment to client confidentiality. In another two cases, social obligations took priority: cases 61 and 78. The latter concerned a decision by the University of Stirling to deny Philip Morris access to research data on youth smoking. The legal ruling was that the University was not entitled to deny access for the reasons it gave (SIC, 2011a); however, there are instructive ethical dimensions concerning information access, notably, protection of minors or in this case young adults. Arguably, the University demonstrated social commitment by blocking access to data to a company trying to sell cigarettes to young people, considering this more important than the principle of open access to publically funded research data.

In four cases, it was apparent that professional ethics had been put ahead of social obligations: cases 77, 13, 41 and 49. In another two cases (14 and 71), some form of compromise was reached; in each, a library took books on bomb-making off the shelves at the request of the police but made them available on closed access. In case 71, the participant noted that the library manager initially 'took a stand' and refused the request. In another three cases, there was no mention of any resolution (28, 17 and 1); for instance, in case 1 no-one had actually tried rebroadcasting letters sent to a radio station by a fifteen year-old, dying in childbirth, and read with her consent on air.

It is also worth noting that, of the 58 cases considered to have raised significant dilemmas in the fields of information and library ethics (summarised in Table 1), over half (33) represented conflict between two professional principles; especially 'information access versus censorship' and 'information access versus privacy', which are principles that feature in library codes of ethics such as IFLA's (2012).

5.3 Do new technologies raise new ethical issues for LIS professionals?

It is noteworthy that six of the twenty-two cases in which new technologies were considered significant or critical cropped up in the category of a dilemma characterised as 'information access versus privacy' (17, 34, 39, 40, 47 and 51). Four of the sixteen cases came up within the context of special librarians confronting the problem of how to facilitate wider access to potentially controversial material that could cause harm in the 'wrong hands' (17, 34, 39 and 47). As such ICT has a central role, since online access changes the nature of who has access to material and, as in the case of the freak show, the means of controlling that access. It also means that any breach of legitimate access can have very far reaching and long-term effects, e.g. the unauthorised copying of a digitised image which can then be used in many (unapproved) ways is generally far more damaging than stealing an image in the pre-online era.

Case 47 contrasts with 17 in that donation of personal files to a special collection included agreement about online access. In this case, the library had to declare up front that there would be no access to the digital content for a specified number of years. A compromise was reached whereby information access was granted only to future user communities, not contemporary ones. In case 28, an interviewee raised the issue of publishing personal papers on the Web when some of the content could be considered sensitive. In private papers, including letters, there is an issue about what relates to the person's work and what is about the individual as a person. Equally, does one publish the complete papers or omit sensitive material that relates to third parties? In a sense, there is nothing new about such cases since print publishers faced the same dilemma. However, the issue could be considered especially significant for online publishing since a key objective of digital humanities is to make works of scholarship more widely available.

In discussion of these cases, the issue of 'control' came up repeatedly: in the digital environment, there is none of the control exercised over access to physical collections, short of introducing identification protocols such as those that could conceivably be applied in case 79 (divorce records). For one of the non-LIS interviewees, however, the form of control exercised by traditional collecting institutions carried negative connotations. A historical parallel was drawn between the way in which librarians and archivists try to maintain control over access, and the way in which bodies such as 'the Church' tried to maintain control in the face of printing and direct access to the Bible in the vernacular. There is a suggested analogy between libraries' restrictions to access and the 'walls' the Church tried to erect, a more jaundiced view of the information gatekeeper than the one to which LIS professionals generally hold.

The issue of consent also came through several times: for example, 39, 40, 48, 31, 17 and 47. Case 39 and the issue of third-party involvement raise the question of how much content should be made available, and whether there should be open and closed sections of the archive. Such an arrangement would be a compromise that proponents of open access might reject.

In conclusion, our findings on the impact of ICT show it has qualitatively changed the nature of the dilemma in some parts of the LIS profession, such as special collections, because the LIS professional now faces different issues and new potential stakeholders when making decisions about access. This is in contrast to Hauptman's view (Buchanan, 2008) that new technologies have not changed dilemmas. It seems likely that, when considered in the abstract, new technologies do not appear to change ethical principles; however, when actually experienced in the workplace they do substantially change the factors the LIS professional has to weigh up. This is an important finding and

strongly suggests that abstract discussion is insufficient on its own when providing ethical guidance for LIS professionals.

5.4 What resources do LIS professionals consult to assist ethical decision-making?

There was generally a strong awareness among interviewees of the ethical principles informing their professions although not necessarily a detailed knowledge of, or reference to, specific codes. This mirrors previous work on how LIS professionals deal with the potential issues of ICT where we found that often these issues were referred 'upwards' through the organisational hierarchy rather than dealt with using library codes of ethics (Ferguson et al, 2015). This awareness of ethics, combined with lack of detailed knowledge of codes of ethics, is echoed by Senapatiratne (2013) who found that librarians could perceive ethical dilemmas between the codes of ethics and institutional guidelines, when a more detailed examination of them both would have shown no conflict.

The cases discussed suggest that in some of the ones in which information professionals face conflicting principles or obligations, a compromise of sorts can be achieved; for instance, those in which libraries responded to a police request to remove information objects by putting them on closed access. In some cases, it is simply impossible to balance two conflicting principles; for instance, the proposed illegal Braille copy (case 21), in which the participant took a consequentialist approach to this conflict with regard to both disabled students and the publishers.

5.5 What can case studies contribute to ethical understanding and decision-making?

This question is linked to both the question about resources and the idea of reflective practice. As noted already in the literature review, case studies have been used in the past by professional associations such as the Australian Computer Society to assist members in making use of their ethical codes and statements and, it could be suggested, to foster reflective practice.

The findings highlight the context-sensitive nature of ethical issues for LIS professionals and provide support for the view that ethical guidelines need to acknowledge the particular nuances of different situations, which the use of case studies addresses, rather than just providing generic guidelines, particularly as different guidelines can sometimes be in conflict. In general the nature and extent of the dilemmas surrounding library material which may potentially offend the sensitivities of certain ethnic or religious groups are, at least to an extent, influenced by the particular location of the library.

One of the lessons taken from case 79 (access to a staff member's personnel file) was that, although ethical principles provide a framework for professional practice, we do need to take a case-by-case approach. There were specific case factors, including the relative lack of 'sensitivity' of the personal data and the fact that the person would be working with young people, which shaped the legal decision that data protection should be overridden. The need for a case-by-case approach was highlighted by a participant with a legal perspective, and by a LIS professional who referred to the case and the impact the decision had made on the thinking of the local LIS community.

The applicability of ethical principles can be tested by altering the parameters of a case: for instance, changing 'material critical of the Royal Family' to 'material critical of Mohammed' would probably move decision-making towards censorship and away from an uncritical acceptance of information access.

Oder's (2006) point, *a propos* of the case of attempted suicide (82), that 'Librarians are generally careful to resist police inquiries about users other than in emergencies', is pertinent here because it suggests that such cases help to test the limits of professional commitment to a set of abstract principles. Moreover, the value of cases also lies in the manner in which they can capture the complexity of the situation that professionals face in practice, with competing principles and/or obligations and the different 'weightings' that can be assigned to the specific factors in the case, such as the sensitivity of the personal data in case 79. Cases can also help to capture some of the

dynamism of the information environment, most notably the impact of ICT; for instance, the web publication of 'freak show' images, never intended for publication (case 17). The literature strongly suggests that case studies can facilitate reflection and active learning (Buchanan & Henderson, 2009; Saab, 2010) which, given the complexity and dilemmas in cases, are much needed attributes of an LIS professional.

6. Conclusions and recommendations

Given what this study has shown us about how LIS professionals experience ethical dilemmas, to what extent are the resources available, such as codes of ethics, 'fit for purpose'? A central theme emerging from our data is the complexity of ethical issues, so any resources for the LIS profession have to take these into account. Our findings support the previous literature insofar as we find extensive evidence that ethics in the LIS workplace is complex and multi-faceted. There are many different stakeholders and, depending on the particular context, LIS professionals may feel loyalty to one more than the other. Our work extends this understanding from the previous primarily conceptual analysis to an in-depth discussion of how LIS professionals experience ethical decision-making in the workplace. One clear message is that LIS professionals are committed to doing the 'right thing', and see ethics as a key part of their professional integrity, but sometimes struggle on the best way to appraise particular situations ethically and to balance the various legal, regulatory, financial and ethical obligations.

One thing that emerges is that case studies are a good way to educate and engage LIS professionals because of the complexity, conflicts and dynamism they can present. The willingness and enthusiasm to discuss particular case studies involving ethical dilemmas suggest they are important concerns for those interviewed in this study. The suggestion is also that the contextualisation provided by such scenarios of otherwise bald statements of core values and ideals has potential benefits, not just in terms of illustrating the policy statements, but also in terms of the potential contribution to professional education and development. Moreover, it is also suggested that their development and dissemination could provide the basis for a better informed debate on professional codes of ethics than we have previously enjoyed. At present professional associations appear more familiar with codes of ethics than practitioners although, at the same time, LIS practitioners show high levels of ethical awareness. This discrepancy suggests that professional associations need to do more to communicate with their members and provide tools that are more useful in the workplace.

Indeed, it follows from our findings about the changes fashioned by technology that there is a need to revisit our codes and guidelines. The IFLA code, for example, could be seen as an attempt to provide a broad set of guidelines for the international library community that is very much a summary of where we have been, rather than a code for the future. It is fine on the traditional library issues of access and confidentiality, but does not address the ethical challenges of the current and potential future digital information environment.

We propose that our data lends support to the need for a revised look at ethics in the profession which acknowledges complexity, and provides tools to assist LIS professionals to navigate the difficult ethical terrain.

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8. Appendices

8.1 Appendix A: cases raised by respondents (not previously reported)

Case	Ethical issues/dilemma	Role of ICTs
1. Retention and possible re-use of letters sent to a radio station by a fifteen year-old, dying in childbirth, and read with her consent on air	Information access versus potential harm to individuals (family); potential legal issues around consent	Significant
2. Use of photographs of children by a public institution for its Christmas card, without parental consent	Information access versus privacy but not a significant dilemma; potential legal issues around consent	None
3. Pressure on information consultants to change comments and recommendations or delete material from reports they have been employed to write	Information access versus censorship; information access versus organisational ethos/requirements	Not significant
4. Library refusal to a request from an academic for access to student data, based on a suspicion of plagiarism	Professional ethics versus organisational ethos or requirements	Not significant
5. Student suspected of having had an inordinate number of inter-library loan requests, some not even in the student's subject area	Professional ethics versus organisational ethos or requirements; information access versus privacy	Not significant
6. Research students and supervisors seeking an embargo on access to theses on the grounds this may jeopardise publication	Professional ethics versus organisational ethos or requirements (note the Library's commitment to open access)	Significant in that such embargos go against ongoing efforts to make research findings and data available online
7. Library informed a final year student's tutor about attempted thefts, resulting in the student being denied academic references and prevented obtaining a job in the career for which he/she qualified	Professional ethics versus organisational ethos or requirements	Not significant
8. A school librarian notices that a child has been reading about sex abuse and wonders whether someone, such as a school counsellor, should be informed	Professional ethics versus social obligations; professional ethics versus potential harm to individuals	Not significant

9. An academic library declines far-right material, after discussion with academic staff	Information access versus censorship; historical record keeping versus promotion of offensive and dangerous views	Not significant
10. An academic library consciously neglects to publicize its British Union of Fascists collection because it could attract the 'wrong' kind of attention	Information access versus censorship	Not significant
11. Librarian who is passionately opposed to animal testing is uncomfortable stocking material safety data sheets used by the company that the Library serves	Professional ethics versus personal convictions	Not significant
12. Academic staff member rubbishing a colleague's publications (typically a junior colleague's work) and counselling against buying them	Information access versus censorship	Not significant
13. A member of the public sees someone else checking a website in a foreign language with guns depicted and reports it to the police, who wanted the librarian to check it (refused)	Professional ethics versus social obligations; professional ethics versus potential harm to individuals (it transpired there was no risk)	Significant in that use of a computer can be tracked)
14. A university library removes a couple of books on bomb-making from open access as the result of a police request	Professional ethics versus social obligations; professional ethics versus potential harm to individuals	Not significant
15. Need for a code of ethics specifically on library acquisition of sensitive materials (examples from museum sector such as human remains and looted material)	No dilemma was articulated (however, arguably professional ethics versus social obligations)	Not significant
16. Issues around acceptance of external funding (which can enhance library resources), for example, taking money from an arms supplier for Syria (see also the Wolfe Report: Gaddafi's son and the management of gifts)	Professional ethics versus social obligations	Not significant
17. Digitisation of sensitive special collections, e.g., historical collection on shows such as 'freak shows', which are relevant to scholars and offer significant historical insight but	Information access versus censorship; information access versus privacy; professional ethics versus potential harm to individuals	Critical (technologies make it easier to misuse objects such as images and make

could offend people or be misused if openly available online		control of access more difficult)
18. Classification such as use of the categorisation 'black women's fiction', which might suit some of the users of a special collection but not necessarily in this instance the writers themselves, who may prefer the categorisation 'general fiction'	Professional ethics (access for the library's own users) versus social obligations (use of language that some may regard as politically unacceptable)	Not significant
19. Removal of some library material from open access, e.g., an anatomy book showing pictures of people from concentration camps or some art history books	Information access versus censorship	Not significant
20. Discovery of a previously unknown library collection, which contains old books of great value, with the librarian's ethical responsibilities lying in preservation and cataloguing of the collection but the institution being more interested in its valuation and sale. The question arises, whose is the collection to sell: the school, the church or the community?	Professional ethics versus organisational ethos or requirements; the issue of ownership (who 'owns' the collection – the institution the Library serves, the parent organization and/or the 'community'?)	Not significant
21. Hypothetical case of copying music into Braille for students: there is no disabilities provision in legislation therefore it is ethical to ignore copyright in the case of text, however, copying music is definitely illegal.	Information access versus intellectual property; ethics versus law (there is also a need to balance disability compliance and copyright compliance)	Not significant
22. Cases in which librarians know the laws governing rights management and observe them in their own work yet do not go out of their way to 'monitor and report breaches' by academic staff and students	Information access versus intellectual property	Not significant
23. Someone who works in a medical library is approached by an ambulance driver wanting to check up on his spouse's medical condition, which the specialist wanted to refer to an overseas specialist	Professional ethics (information access) versus potential harm to individuals	Not significant (from a pre-internet time)
24. Staff photos are required for security purposes but the software	Workplace ethics, as distinct from information ethics	Significant (but not applicable to study)

used by a library uses photos in different applications such as email, which is not necessarily wanted or desirable		
25. A local government authority decides to introduce charges for hitherto free internet access, creating tension for public librarians working for the authority, who have a long-standing commitment to free library services	Professional ethics versus organisational ethos or requirements (noting that there is a legal framework in this instance)	Not significant (even though this does concern internet access)
26. A public records office retains a report along with the investigation that went into it against the wishes of the public authority that was the subject of the report, which wants only the report to be retained on the public record	Professional ethics versus organisational ethos or requirements (noting that public records offices and local authorities do not necessarily share the same organisational ethos)	Not significant
27. A hypothetical case based on Robert Hauptman's experiment, in which he approached reference staff with a request on information on bomb-making, except that in this case the library is in a Western country and the requester is of Middle-Eastern appearance and accent	Professional ethics versus social obligations; professional ethics versus potential harm to individuals	Not significant
28. Publishing personal papers (in this case, a writer's) on the Web when some relate to third parties and could be considered sensitive - what relates to the person's work and what is personal?	Professional ethics versus potential harm to individuals (with potential to become a legal issue)	Significant because the point of Digital Humanities is to make works of scholarship widely available
29. A persistent computer usage report is generated because of excessive usage and the staff member is shown to have inappropriate images on his PC (clearly not work related)	Workplace ethics, as distinct from information ethics	Significant (but not applicable to study)
30. A government instructs librarians not to acquire material from Israel (issue of acquiring books from Israel plus an issue of library exchange)	Ethics versus law (suggestion that this is an example where ethics should be stronger than the law)	None
31. Use of a web archive as a data set, which became an issue for a religious organisation, which was known to be secretive and could	Information access versus privacy (there is a dilemma for the researcher: notify the organisation, which	Critical (data archived before the organisation was

object to the mining of archived data since presumably it had not considered that its data might be analysed one day	might well remove the data from the Web?)	aware of the extent of data mining)
32. Management of digital collections in other countries, with legal and licensing issues, negotiation with government agencies in countries without open government and the sharing and ownership of data	Management issues rather than ethical ones	Significant but no ethical dilemma identified
33. A case in which a participant in a public website used it to link to a misogynistic website of his own, a link that the librarian wanted legally removed	Information access versus censorship; information access versus social obligations	Significant
34. Potential issue associated with the digitisation of public records, e.g., divorce records, which have a lot of detail and include financial information and photos	Information access versus privacy (however, it is unlikely that any public body would publish such records on the Web)	Critical
35. Potential for preservation to be an issue when third parties are involved, e.g., use of cloud storage, with libraries essentially passing responsibility for preservation to the company	Not framed as a dilemma; better treated as a risk management issue in which, e.g., information agencies might pay insurance that allows recovery of content	Significant but no ethical dilemma identified
36. A bullying allegation is not judged bullying but the person making allegation has a disability. The manager has a problem managing two people who don't want to work together or even email each other – it ceases to be reasonable	Workplace ethics, as distinct from information ethics	Not significant
37. Cases of companies getting people to upload 'expertise' and content into a 'knowledge base' then firing them (no concrete examples given so these are treated as hypothetical)	No clear issue of information ethics; better treated as an example of workplace ethics	Significant but no ethical dilemma identified
38. A member of a professional association is forced to change by his/her organisation, goes to the association for help but finds it cannot help because of its advocacy for change	No clear ethical issue	Not significant

39. The issue of digital collection and access when third parties are involved: how much should be put up or should there be open and closed sections of the archives?	Information access versus privacy (open and closed sections would be a compromise that proponents of open access might reject)	Critical
40. Digitisation of a mass observation project archive from the 1960s/70s, with privacy implications for individuals involved	Information access versus privacy (issue for digitisation and the fact that the time for consent has passed)	Critical
41. A librarian has strong reasons to suspect that someone who had asked for help with a laptop at the help desk had stolen it	Professional ethics (client confidentiality) versus social obligations	Not significant
42. A public library authority buys copies of a book about local gangs that can embarrass Council and individuals working there	Professional ethics versus organisational ethos or requirements	Not significant
43. Firemen request copies of architectural plans in order to check the fire safety of a building but the plans are copyrighted	This is largely a workplace ethics dilemma but was framed as information access versus intellectual property	Not significant
44. Web harvesting and the issue of legal deposit – there is some control with print but a domain crawl may pick up illegal material (e.g., hardcore pornography, defamatory material)	Ethics versus law	Critical
45. RFID technologies and the capacity to track the extent of student library use to establish if there is any correlation between that and student grades	Professional ethics versus organisational ethos or requirements	Critical
46. RFID technologies and the potential use of student cards to track attendance at lectures	Professional ethics versus organisational ethos or requirements	Critical
47. The collection of content that cannot be digitally available yet because of some form of embargo; effectively collecting/digitizing material for the benefit of future user communities, not contemporary ones	Ethics versus law; potentially, information access versus privacy	Critical
48. The case of an artist who used website streaming of a public space, with people signing privacy	Information access versus privacy (in the case of	Critical

agreements but one subsequently having a change of mind	research ethics, participants would have a let-out clause)	
49. Reports of requests from the police to examine library computers used by specific members of the public and librarians refusing the requests (within the context of the threat of terrorism and/or anti-terrorism laws)	Professional ethics (client confidentiality) versus social obligations; potentially, ethics versus law	Significant in the sense that computer use can be tracked
50. Someone approaches an officer of a professional librarianship body to check the legitimacy of an action by the association (conflicting obligations)	Professional ethics versus organisational ethos or requirements	Not significant
51. Someone receives advertisements in her inbox for books relating to e-books she had accessed through the university library	Information access versus privacy (however, unclear libraries can do anything to protect client confidentiality)	Critical
52. Cases in which people based in Scotland join a public library in the north of England and get free access to its databases	Information access versus intellectual property (however, information access needs to be delimited by user community)	Significant
53. Case of a thesis on terrorism – British Home Office doesn't want it made available so there is a three-year embargo, which is reviewed annually	Ethics versus law	Not significant
54. Two Canadian provinces have an early twentieth-century agreement that census data would never be made public – difficult to enforce in a digital information environment (and a period of open government)	This was not framed as a dilemma but could be described as a political dilemma	Significant
55. Example of a church archive being transferred to new building in another city, leading to an outcry – this was seen as a potential issue for a public archive with private collections going back centuries (most relating to a specific region) and willing to transfer records to another institution in the event that the other institution collects in the same field	Professional ethics versus social obligations if interpreted in terms of the benefit of uniting a special collection versus potential community objections if the collection is transferred a significant distance	Not significant unless collections are digitized, in which case location becomes largely irrelevant
56. Activist died and left letters to a library. Publication is a possibility	Information access versus censorship; information	Not significant

but the family would need to sign the letters over to the Library. Someone in the institution knew the writer and wants some references left out: one to the son's mental illness (agreed by the Library), another to the writer's three wives (not agreed).	access versus potential harm to individuals (offence to the family's sensitivities)	
57. Case of a single library authority for a political jurisdiction with only a handful of operational managers with the power to impose internet filters	Dilemma not articulated but could be framed as professional ethics versus potential harm to individuals (protection of minors)	Significant
58. Cases in which classification or taxonomy involves significant degree of interpretation: e.g., in one context prostitution is described as 'sex work' but in another as 'violence against women'(part of feminist interpretation)	No ethical dilemma but could be seen as professional ethics (information access) versus social obligations (use of terms that some may regard as politically unacceptable)	Not significant
59. Case of library stocking an anti-Royal Family item (UK)	Information access versus censorship	Not significant
60. Case in which a local authority policy required internet filters, even filters on staff PCs (Library management went to IT to have this relaxed)	Professional ethics versus organisational ethos or requirements; information access versus censorship	Significant
61. Out of respect, the Koran should be shelved above head height: should libraries practice this out of respect for their communities?	This was not framed as a dilemma although arguably the issue is professional ethics (information access) versus social obligations	Not significant
62. Cataloguing described as containing an ethical element since failure to catalogue an item properly and accurately could affect information access negatively	An example of how library tasks contain an ethical imperative but no dilemma	Not significant
63. Example of a vision-impaired person moving from England to Scotland and not getting the same service	Professional ethics versus organisational ethos or requirements (however, arguably equity of service is not applicable across different political jurisdictions)	Not significant
64. Digitization program at a national library includes digitisation of books in a national language that only small number of people speak	Not framed as a dilemma; it could be argued digitisation should be prioritised by user demand but, despite limited	Critical

(the book collection gets very limited use in the reading rooms)	use of the print collection, digitisation has resulted in thousands of downloads	
65. Issue of contracts with companies such as publishers and software companies and the way in which latter 'look after' library directors, e.g., invitations to conferences	Case of workplace ethics, in which sound management processes were in place	Not significant
66. Example of a professional chatroom/forum that an agency might try to join with a view to recruiting its members	More of a management issue – whether there is an etiquette in place to prevent 'misuse'	Significant but no dilemma in terms of information ethics
67. Example of students setting up a Facebook page criticising Library – should the Library be involved? (In this case, staff did respond.)	More of a management issue than one of information ethics	Significant but no dilemma in terms of information ethics
68. Issues around benefactors (example given was Murdoch and Journalism Chair at Oxford University)	More of a management issue than one of information ethics	Not significant
69. Example of reputational risks versus ethics: many RIM professionals are risk averse and are strict with researchers about copyright yet happy to take copyright risks themselves	Information access versus intellectual property	Not significant
70. Information consultants are asked by governments to waive their moral rights of authorship and attribution but refuse to allow the possibility of someone changing their work.	Professional ethics versus organisational ethos or requirements	Not significant
71. Police told a librarian to take a bomb-making book off the shelves - the librarian refused but eventually agreed to put it behind the counter	Professional ethics versus social obligations; professional ethics versus potential harm to individuals (potentially also ethics versus law)	Not significant
72. In a discussion about new technologies, a library manager gave the example of nitrate films – copy and destroy or wait for better technologies to make better use of material?	Could be seen as a management issue although there is an ethical element in the fact that experts consider something was lost in the destruction of the nitrate originals	Not significant since the destruction of nitrate films predated current digitization programs

73. Survey Monkey's access to research data: we don't know what Survey Monkey does with the data	A dilemma in terms of research ethics and therefore beyond the scope of this study	Significant but not in terms of the research question
74. AmazonTurk and Amazon's use of workers paid little to nothing – in this case a student wanted to research the issue but didn't because it was 'ethically problematic'	A dilemma in terms of research ethics and therefore beyond the scope of this study	Significant but not in terms of the research question
75. Example of a blind person being sent to a room with a staff member because otherwise there would be no access	Not articulated as a dilemma but arguably a case of information access versus privacy	Not significant

8.2 Appendix B: cases already reported in the literature/media

Case	Ethical issues/dilemma	Role of ICTs
76. The 'volunteers issue': in the context of financial cutbacks in the order of thirty percent and cuts in library services, should professional librarians volunteer their time without pay to help maintain these services? (Wade, 2015)	Professional ethics (maintenance of standards) versus social obligations (to LIS professionals' communities)	Not significant
77. Well-publicized case of a Scottish murder enquiry, in which the library refused to give police the access they wanted (no citation supplied)	Professional ethics (client confidentiality) versus social obligations	Not significant
78. The case the Philip Morris company took to the Scottish Information Commissioner regarding the University of Stirling's refusal to provide access to research data on youth smoking (SIC, 2011a)	Primarily a legal issue of freedom of information versus data protection but arguably also ethical dilemmas: information access versus censorship; information access versus social obligations; ethics versus law	Not significant but there is a view there should be open access research data that have been gathered with public funding
79. A case in which the Scottish Information Commissioner supported a freedom of information request by someone to obtain access to a member of staff's personnel file in a public organisation (SIC, 2008)	Information access versus privacy (also primarily a legal issue of freedom of information versus data protection)	Not significant
80. The fairly well-publicised Boston College case, in which IRA activists had been interviewed, with the agreement that interviews would be kept confidential; subsequently the Northern Irish police service wanted to see the research data, BC resisted but a court decision required it to open its archives to the police (McDonald, 2015)	Ethics versus law	Not significant
81. The refusal by some public librarians to stock certain items, such as Salman Rushdie's 'The Satanic Verses' despite their professional association's advocacy of unrestricted access (Gordon-Till, 2002)	Information access versus censorship; arguably also Professional ethics versus social (community) obligations	Not significant

<p>82. A case of self-harm in which someone draws the attention of the police to another person's apparent suicidal tendencies in a chat-room accessed from a library: police obtain an address from a librarian and alert a woman there while her son was upstairs about to commit suicide (Oder, 2006)</p>	<p>Professional ethics (client confidentiality) versus social obligations; professional ethics versus potential harm to individuals</p>	<p>Significant (alert from chat-room)</p>
<p>83. MOOCs or Massive Open Online Courses potentially raise issues for libraries, including 'the proper application of fair use, the transition to open access as the default mode of scholarly publishing, and the provision of equal access to learning materials for students with and without disabilities' (Butler, 2012)</p>	<p>Not framed as a dilemma and not clear that the default mode of scholarly publishing is open access yet</p>	<p>Significant (were this to become a dilemma)</p>
<p>84. Time-consuming nature and expense of website maintenance; nonetheless, it 'must be done. If you don't, only two alternatives remain: Antagonize your users or take the site down' (Koehler, 2000)</p>	<p>Professional ethics versus organisational ethos or requirements</p>	<p>Significant, however, this is not a new issue</p>
<p>85. Legal case of disclosure of sex offender statistics by postcode, down to the 4th digit (UK) to establish if offenders were being housed in lower-income housing. The Scottish Information Commissioner initially ruled for non-disclosure but this was later amended (SIC, 2011b)</p>	<p>Legal issue (freedom of information versus data protection) but mirrors ethical issue of information access versus privacy</p>	<p>Not significant</p>
<p>86. Databases and e-readers create records of a user's intellectual activities that can include search terms, highlighted phrases and what pages an individual actually reads, which can be used as a marketing tool or even passed over to law enforcement officers (CILIP, 2014, p.7)</p>	<p>Information access versus privacy</p>	<p>Critical</p>