



Regulating use of the internet in public libraries: a review

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Abstract

Purpose – The purpose of this paper is to review current knowledge, research and thinking about the difficulties facing public libraries offering internet access to their users in ensuring legally compliant and non-offensive use of this facility whilst still adhering to the professional value of freedom of access to information.

Design/methodology/approach – A range of recently published sources (1997-2013) relating to the technical and organisational measures used to manage public internet access primarily in public libraries in the UK with some limited international examples were reviewed and analysed. This work was undertaken as the underpinning research for an AHRC-funded project, MAIPLE (Managing Access to the internet in Public Libraries).

Findings – The provision of public internet access is a well-established component of the role of public libraries, but is seen as a potential problem due to the possibility of misuse, and it appears that simplistic technical solutions have disappointed. Legislation increases the need for more effective solutions that can provide a balance between the need for legal compliance, a welcoming environment for users, and the protection of key freedoms. A range of measures are being adopted worldwide in response to this dilemma.

Originality/value – Research exploring internet access in public libraries and its management in the UK is numerically small and much of it dates back to the start of the twenty-first century. This review presents a comprehensive analysis of the available literature and is of relevance to practitioners and academics in the fields of public librarianship.

Keywords Internet, Management, Ethics, Filtering, History, Public libraries, Copyright, Wi-fi

Paper type Literature review

Introduction

Public libraries offering internet access to their users face significant difficulties in ensuring legally compliant and non-offensive use of this facility whilst still adhering to the professional value of freedom of access to information. The purpose of this paper is to review current knowledge, research and thinking about this problem. It does this via a comprehensive analysis of the Library and Information Science literature relating to the issue of public internet access primarily in public libraries in the UK and with some international comparisons. This work was undertaken as the underpinning research for an AHRC-funded project, MAIPLE (Managing Access to the internet in Public Libraries)[1]. A key motivation for this project was the realisation that, despite the practical and ethical importance of the subject, research exploring internet access

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in public libraries and its management in the UK is numerically small. Moreover, and despite the fast pace of technological change, much of this research dates back to the start of the twenty-first century.

This paper considers the history of internet access in public libraries in the UK as well as research relating to internet management in public libraries, internationally. Research exploring examples of misuse is also examined and the arguments put forward both for and against the use of technical measures such as filtering software are highlighted. Organisational measures to manage internet use are also examined. Finally, the potential legal liabilities of UK public libraries consequent to the Digital Economy Act (DEA) 2010 in relation to the public accessing the internet are considered.

Method

A comprehensive search of the literature from the last 16 years (1997-2013) was undertaken to inform the literature review. This time frame was selected to incorporate developments relating to internet access in the UK which were stimulated with the publication of *New Library: The People's Network* in 1997 (Library and Information Commission, 1997). The aims of the review were to critically analyse sources relating to internet access in public libraries in the UK and abroad; to ascertain the measures taken in the UK to address concerns about internet misuse; to gauge the extent of the adoption of technical measures such as filtering software and organisational measures such as Acceptable Use Policies (AUPs); to review any guidance on the issue from national, international and supra-national bodies in order to gain a comparative perspective and to garner examples of good practice in the literature. With these aspects in mind, a range of relevant search terms were employed including appropriate use of synonyms as well as a wide range of search techniques, for example, use of truncation, wildcards and Boolean operators.

Relevant sources were located through the use of electronic research databases, predominantly, Library and Information Science Abstracts and Library, Information Science & Technology Abstracts. For sources in other subject disciplines, Zetoc, was utilised. The same search techniques were also used to identify newspaper reports and non-academic publications available on the Web. Relevant sources were also highlighted by the members of the project's External Advisory Board and through the authors' familiarity with the research field. The employment of backward and forward citations or chaining, "following chains of citations or other forms of referential connection between material" was also used (Ellis, 1989, p. 178).

Following a first read of the articles gathered, more than 90 relevant primary and secondary sources, conceptual papers and opinion pieces were reviewed which included academic and professional journal articles, monographs, research reports and reviews, theses, newspaper articles, guidance documents and publications to identify the ways in which public libraries regulate and manage access to the internet.

The literature was then analysed and synthesised. The year of publication, country of origin, title of the article, the author, the methodology used in the study and the findings and outcomes were all recorded and considered in relation to the aims of the review.

Background

Computers have been available in public libraries in the UK since the 1960s, in back room operations such as cataloguing, library circulation systems and online databases. Throughout the 1970s and 1980s a range of borrowing services were automated and by the 1990s, Information Technology (IT) in libraries included library management

systems for staff and facilities designed for the public including PCs to access CD-ROMs and OPACs, undertake word processing and surf the internet (Spacey, 2003). Developments in public libraries in the UK in the mid to late 1990s were stimulated by a number of government commissioned strategies during a period of advancement of the concepts of lifelong learning, increasing IT use (by which point IT was now commonly referred to as ICT (Information and Communications Technology/ies)) and reducing social exclusion. Most notable of these were *New Library: The People's Network* published in 1997 by the now defunct Library and Information Commission, the government's response to this paper in 1998 and *Building the New Library Network* (Library and Information Commission (LIC), 1998). Funding of £100 million was committed to provide the infrastructure to connect all static library points to the internet by 2002, which became known as the People's Network (PN) (Goulding, 2006).

The PN was a hugely ambitious project and its roll-out was relatively quick and unlike anything the public library sector in the UK had ever experienced. There had been some investment in the form of £6 million for ICT infrastructure from the DCMS/Wolfson Public Libraries Challenge Fund in the late 1990s but internet access in public libraries was patchy. By 2003, the PN had contributed approximately 30,000 PCs with internet access to public libraries across the UK (Sommerlad *et al.*, 2004, p. 28). Brophy's review of the PN illustrated just how rapid this change was by citing installation figures from the year before: "By mid-November 2002, UK public libraries were providing 18,578 public access internet terminals, a number continuing to increase daily as they move towards the target of 30,000 by the end of the year" (Brophy, 2003, p. 18). As well as the implementation of computer hardware and internet connections, £20 million was allocated to train all 40,000 public library staff in the UK in the use of ICT so that they might better support library users and successfully utilise ICT resources in the provision of information. Staff training in ICT had been sporadic in public libraries and a survey by the British Educational Communications and Technology agency identified front-line staff as most in need of ICT training (LIC, 1998). The New Opportunities Fund (NOF) ICT training programme consisted of eight expected outcomes aimed to develop competence with ICT which included the effective management of resources and using ICT to support users. Outcome 1 of the NOF ICT training was competence with ICT including use of the internet. Seen as the core of the training, it was often encompassed by the European Computer Driving Licence qualification. Research which looked at public library staff attitudes to the internet during the roll out of the PN concluded that, "Although a minority of staff resented having to undertake the NOF ICT training, many respondents found that training improved confidence and skills when using the internet" (Spacey and Goulding, 2004, p. 23).

Public libraries and internet access

At present, public libraries in the UK provide a range of services to their communities of which computers with internet access is just one. Over the last decade this function has become a crucial one as "public libraries have featured large in government initiatives to extend internet access beyond those connected at home or through work" (Goulding, 2006, p. 167). There are 151 library services in England, 32 in Scotland, 22 in Wales and one in Northern Ireland (Libraries NI) providing internet access through 43,365 terminals (CIPFA, 2012) offering a potential 83,436 hours and actual 35,819 recorded hours of usage of the PN PCs over 4,384 service points (2011-2012).

Internet access in public libraries provides a means for those without access at home or work to access commercial and governmental services and information.

Research suggests that this is especially true for adults on low incomes who access the internet in “Libraries, on mobile devices, and another person’s home [...] whereas work and home access are more common among the higher income groups” (Dutton and Blank, 2011, p. 10). Data collected in Great Britain (England, Scotland and Wales) reveal that an estimated 10 per cent of adults accessed the internet in a public library in 2006 decreasing to 4 per cent in 2010 (Office for National Statistics, 2010a; Office for National Statistics, 2010b). In that same time period, accessing the internet at home increased from 85 to 95 per cent of the population whilst visiting an internet café decreased from 8 to 3 per cent of the population. However, other data indicate public library internet access and use has increased. Oxford internet Survey’s data based on interviews with a nationally representative random sample of 2000 people aged 14 and upwards in Great Britain found that the percentage of current users accessing the internet in the public library increased from 5 per cent in 2003 to 15 per cent in 2011 compared with internet cafes which have increased from 3 per cent in 2003 up to 9 per cent in 2007 and fallen to 8 per cent in 2011 (Dutton and Blank, 2011).

In addition to networked PCs in public libraries, many services offer library users the opportunity to connect their own device such as a tablet or smart phone to the internet via a wireless network access point (Wi-Fi) as the popularity of accessing the internet in this manner has increased. For example, Oxford internet Survey data found that accessing the internet on a mobile device has risen from 20 per cent of all users in 2009 to 40 per cent in 2011 (Dutton and Blank, 2011). In 2012, there were 909 public library service points in England, 103 in Wales, 171 in Scotland and three in Northern Ireland offering Wi-Fi (CIPFA, 2012).

Internet misuse

Internet misuse is usually associated with viewing harmful content, such as pornography (Colaric, 2003) and illegal usage with viewing child pornography (Department of Justice, Equality and Law Reform, 1998). A recent example of illegal use in a UK public library was the conviction, in 2011, of a 49-year-old man in Manchester, who was jailed indefinitely for 25 offences. A member of the public had alerted library staff to the man who had been viewing indecent images of children in the Old Trafford Library (Britton, 2011, np). Of the studies conducted in public libraries internationally, there is evidence of misuse (Curry, 2000; Pors, 2001; Poulter *et al.*, 2009; Australian Library and Information Association (ALIA), 2011), although there is also some suggestion that levels of misuse have been exaggerated perhaps skewed by the emotional response to reports such as a recent Federal Bureau of Investigation press release in the USA detailing how a 54-year old, subsequently sentenced to 40 years in prison, used his local public library as well as coffee shops to access and distribute child pornography (Federal Bureau of Investigation, 2012). A study in Canada analysed 5,000 transaction logs on seven public library workstations, equating to one week’s use of the internet, in Burnaby, British Columbia. Terminals were unfiltered and protected by privacy screens. Curry found that most sites visited were related to communication, web communities, business and information whilst use of sexually related sites both soft and hard-core was limited possibly because most of the sites required membership using credit card details. Curry concluded “It appears that customers accessing these sites are either not members or are unwilling to enter their membership names in a public terminal. Most sites were accessed as ‘quick peeks’ in between much longer e-mail sessions or within information searching sessions” (Curry, 2000, p. 45). A recent survey of Australian public libraries found that complaints about internet content

were principally concerned with sexually explicit content (251 of 322 responding libraries). However, only 2 per cent of complaints were referred to the Australian Communications and Media Authority and were usually dealt with at the time by staff (ALIA, 2011).

Poulter *et al.* (2009) writing about the FRILLS project (Forensic Readiness for Local Libraries in Scotland) explored “technical preparedness for computer investigation in anticipation of a crime” (p. 4). The literature review for the project found instances of misuse which typically involved pornography. For example, in 2005, a man was convicted and jailed for two years for downloading nearly 1,000 indecent photographs of children in a public library in Berwickshire (Poulter *et al.*, 2009). Two online surveys were also carried out with heads of service and staff in Scottish public libraries which looked at the effectiveness of AUPs, experience of misuse, how it had been dealt with, training in detection and misuse reporting. They found that serious incidents of misuse were rare. Pors’ study of internet use in public libraries in Denmark found that 33 per cent of public library services had registered some kind of misuse incident or suspicion of an incident: “It is evident from the answers that the librarians see misuse not only as phenomena like the downloading of pornographic, racist and Nazist material, but also changing the configuration of the computers, installation of start-up pictures of a dubious kind and different types of noise problems” (Pors, 2001, p. 310).

Online copyright infringement

Misuse may also include intellectual property issues such as using peer-to-peer technology to download music illegally (Sturges, 2002). The DEA 2010 amends the Communications Act 2003 and addresses the issue of online copyright infringement. In the Communications Act 2003, s.124N, an internet Service Provider (ISP) is defined as “a person who provides an internet access service”. An internet access service is “an electronic communications service that – (a) is provided to a subscriber; (b) consists entirely or mainly of the provision of access to the internet; and (c) includes the allocation of an IP address or IP addresses to the subscriber to enable that access” (Ofcom, 2010, p. 14). A subscriber is “in relation to an internet access service [...] a person who – (a) receives the service under an agreement between the person and the provider of the service; and (b) does not receive it as a communications provider” whilst a communications provider is “a person who (within the meaning of section 32(4) [of the Communications Act 2003]) provides an electronic communications network or an electronic communications service” (Ofcom, 2010, p. 14). The DEA 2010 identifies three key roles: copyright owners; ISPs and subscribers to internet services. It is not yet in force, as it requires the development of an agreed “Initial Obligations Code”, which is being managed by Ofcom, the independent regulator and competition authority for the UK communications industries. Public library responses to the Initial Obligations Code all raised concerns about how libraries providing internet access will be classified for the purposes of The Act[2]. The core concern is that libraries will at some point be classified as ISPs, or worse, be classified as subscribers from the outset. Indeed, they could be classified as ISPs, subscribers and communication providers at the same time. If public libraries are classed as qualifying ISPs, they will incur the costs of implementing policy, technical infrastructure and workflows to ensure compliance.

Responses from public library authorities (PLAs) to the Ofcom consultation pointed out that copyright infringement in public libraries is non-existent or negligible. Furthermore, libraries have implemented measures to minimise infringement. These measures include authentication, AUPs, monitoring use, filtering software, preventing

loading of software that could be used to infringe and displaying copyright notices. The contractual arrangements of how internet connections are procured by libraries from upstream providers and then provided to library users means that it would not be clear how the definitions for service providers could be applied.

Ofcom acknowledged the strength of concern on this matter in the library community and confirmed that public intermediaries such as libraries would not initially be within the scope of the Initial Obligations Code. However, Ofcom also stated that it was not the intention of Government to permanently exempt libraries from qualifying as ISPs. In Ofcom's view, if libraries receive an internet service for the purposes of offering connections to library users, the library should be considered an ISP or a communications provider by its own provider, rather than as a subscriber.

It is planned that the Initial Obligations Code will come into force in 2014. The only certainty that public libraries have at the moment is that they will not initially be covered by the Code. As the finalised Code will give force to the online copyright infringement provisions of the DEA 2010, the Act may be subject to further legal challenges. In the meantime, PLAs can only continue to manage provision of internet access to minimise use of connections for copyright infringement.

Much of the professional literature relating to public internet access in libraries, in the USA in particular, is focused on the arguments relating to the pros and cons of technical measures to manage internet misuse, primarily, the employment of filtering software, also known as content-control software, content filtering software, censorware or web filtering software and which, "seeks to keep a user from finding or viewing certain types of material" (Diaz, 1999, p. 147). The American Library Association (ALA) and American Civil Liberties Union (ACLU) have been very vocal in their opposition to filtering (Bertot *et al.*, 2010).

Arguments in favour of internet filtering software

Protection of minors

The protection of children or minors is the primary justification for the use of filtering software. In the UK, an independent review of the risks children face from the internet and video games noted that much of the concern about content on the internet is focused on sexual content (Byron, 2008).

A thesis funded by the International Federation of Library Associations (IFLA) and the Royal School of Library and Information Science in Copenhagen, surveyed national library and information professional associations and asked whether they were in favour of filtering information on library internet terminals, whether filtering was widespread in libraries and the motivations for filtering (Hamilton, 2004). Of 84 countries answering, 52 per cent were not in favour of filtering, 6 per cent were in favour and 42 per cent were in favour to a certain degree. Filtering was widespread in libraries in 9 per cent of countries, to a certain degree in 27 per cent and not widespread in libraries in 64 per cent of countries. The response involves a subjective assessment of what is "widespread" but of those 42 associations whose countries did have widespread filtering of the internet the main motivation was the protection of children (35). Other motivations were to safeguard public morality (20), to prevent criminal activity (ten), to safeguard national culture (six), to protect national security (five), to safeguard religious values (four) and "other" which included virus protection, pornography and safeguarding servers (three).

Colaric (2003) argues that library staff work hard to create a perception of the public library as a safe place for a child that offers accurate information; unfiltered internet

access risks damaging this perception. While it has also been argued, for example, by the ALA that the absence of filters provides an opportunity for children, with the support of library staff, to develop their information literacy and searching skills (American Library Association (ALA), 2003), Colaric queries whether this would actually happen, highlighting Marchionini's (1995) research into children's information literacy skills which suggested children aged nine to 12, "have difficulty constructing effective search strategies" (cited in Colaric, 2003) and tend to assume that what they find on the internet is accurate (Schacter *et al.*, 1998 cited in Colaric, 2003).

Protection of staff

Frontline library staff may also prefer software filters since as Pors (2001) suggests they interact with users more often and have more first-hand experience of problems related to internet access. Poulter *et al.*, writing about the FRILLS project in Scottish public libraries discovered that public library staff "found checking for misuse, and dealing with it, extremely unpleasant" (Poulter *et al.*, 2009, p. 5). In Canada, for example, at Ottawa Public Library, a public internet access policy was developed which offered open access with a few filtered PCs (39 of 250). However, some staff were unhappy with this as some users were leaving pornographic images on PCs. The union became involved and the local media called the library a "porn palace" (Cavanagh, 2004). The resulting policy was for children only to have access to filtered internet services, unless their parents gave approval for unfiltered access.

Public internet access has certainly impacted on the role of library staff and services: "Some of the suggested new library roles, such as screen monitors and emergency responders are completely new, while others, such as providing training and assistance, are extensions of libraries' traditional roles" (Kinney, 2010, p. 130). As the PN was rolled out and public library staff undertook ICT training, research which looked at staff attitudes to ICT found that the majority of the 964 staff responding felt generally positive about helping the public use the internet although one-fifth had mixed feelings and 8 per cent were negative (Spacey *et al.*, 2004). This indifference and hostility was frequently related to the time involved helping the public as well as having to deal with technical problems.

Filters are popular with some staff because they may alleviate some of the worry that users may access inappropriate material. Sturges suggests, "The attraction of filtering public access is that it [...] anticipates the possible interest of police or security services, by removing access to contentious material before it even reaches anyone's workstation" (Sturges, 2002, p. 38). Another factor may be because they "are relatively affordable and fairly easy to use. Filters are also widely available in the market and there are many models from which to choose" (Radom, 2007, p. 4).

Arguments against internet filtering software

The arguments against the use of filtered internet access are principally related to the technical limitations of the software. The Free Expression Policy Project's compendium of filtering research in the USA considers the results of research papers and reports in relation to their over and under-blocking rates and the authors concur, "one conclusion is clear from all of the studies: filters continue to block large amounts of valuable information" (Heins *et al.*, 2006, p. 73). In addition, the ethical implications of restricting access in this way do not sit well with a profession devoted to the unbiased dissemination of information: "It is an acceptable form of censorship for many organisations, but it is in the raw definition of the word, censorship" (McMenemy and Burton, 2005, p. 22).

Article 10 of the “European Convention on Human Rights”, for example, provides the right to freedom of expression which includes the right “to receive and impart information and ideas without interference by public authority and regardless of frontiers” (European Court of Human Rights, Council of Europe, 2010, p. 11).

Over-blocking and under-blocking

A study of Australian public libraries found 71 per cent of respondents expressed concerns about filtering and its reliability. In all, 80 per cent of libraries using filtering software reported that users were unable to access legitimate content (over-blocking) or the filter allowed undesirable content (under-blocking) (Australian Library and Information Association (ALIA), 2007). Follow-up research in 2011 revealed that 44 per cent of respondents had received complaints about filtering. These were related to over -blocking of gaming and social networking sites and e-mail access as well as “restricted access because filters blocked valid, legitimate, inoffensive sites in error; limits on file size downloads, and general objections to the ethos of filtering” (ALIA, 2011, p. 23).

Comer’s study of public libraries in Indiana, USA, found 66 per cent of responding libraries used filters of which 35 per cent had experienced one or more types of problem. In all, 22 per cent said that users complained of over-blocking whilst 21 per cent found that their filters were under-blocking (Comer, 2005).

In the UK, the Reading Agency undertook an online survey in 2011 to inform thinking around digital reader development in which all PLAs in England, Scotland and Wales were invited to participate. Responses were received from 52.6 per cent of PLAs. Tools to manage internet use were identified as a barrier in the development of a digital reading offer: “Firewalls, filters and other IT restrictions make it hard for staff and users to access social media sites in particular” (Reading Agency, 2011, p. 5). Filters and firewalls were cited by 53.1 and 51.3 per cent, respectively, of all responding authorities whilst the blocking of social media web sites was an obstacle for 46 per cent.

In the USA and the UK, library users may ask staff to unblock sites or disable filters, however, this process is not always a simple one (Sobel, 2003; Kranich, 2004). As Jaeger *et al.* warn, “Even if patrons are not self-conscious about the material they are seeking, the process of requesting unfiltered internet access could still limit usage [...] CIPA[3] has no set procedure for requesting the removal of filters, so the process will vary considerably between libraries” (Jaeger *et al.*, 2006, p. 134). It is likely that many users faced with blocking of content will simply refrain from any further attempt to access the content, even if it would have been useful in meeting their information needs.

Filters can be bypassed

Filtering does not block all objectionable material and filters can be bypassed: “A search on ‘bypass internet filter’ demonstrates just how easily students can find directions” (Willard, 2010, p. 58). Bitso *et al.*’s literature review of internet censorship in nine countries including the UK notes that there are ways in which individuals may circumvent internet censorship: “There is evidence that with little effort, users are able to evade filters by accessing blocked websites using overseas Web proxies (i.e. intermediate machines that retrieve Web pages on behalf of users for a number of purposes such as increased efficiency and privacy protection) (Feamster *et al.*, 2002)” (Bitso *et al.*, 2012, p. 12).

Filtering decisions are not made by librarians

In 2002, Nancy Willard authored a report which reviewed the relationships with religious organisations of eight filtering companies, whose products were being used in American public schools. Willard found that three of the filtering companies were also selling their product to conservative religious ISPs whilst the other five companies had functioned as conservative religious ISPs. Radom's follow-on article detailing Willard's research found that "at least 15.9 per cent of Indiana public libraries used filters with connections to conservative religious groups in 2005" (Radom, 2007, p. 1). Kranich (2004), a former ALA President, argues that staff at filtering software companies cannot possibly review all the publicly available web sites yet they are unwilling to disclose the criteria they use for filtering deeming it commercially sensitive information. Furthermore, "Some of these commercially available filtering products actually record user's actions online, and have been recently discovered to have created a new income stream by disclosing young people's online searches and chat logs to marketing agencies" (Bertot *et al.*, 2010, p. 170).

It has also been noted that there is a difference between librarians selecting resources and withholding them (Diaz, 1999): "While it has been pointed out that librarians have always selected material for library stock and have therefore acted, to an extent, as a filter, filtering software removes selection decisions from librarians and places it in the hands of non-library trained third parties or computer automation" (Hamilton, 2004, p. 163). Moreover, there is a distinction to be drawn between selection decisions based on limited resources, as is the case in the traditional book selection model, and decisions actively to withhold resources that otherwise could be obtained without additional cost (and indeed the withholding of which incurs further costs as a result of the required filtering software purchase and administration).

The ethical implications of filtering

Aside from the limitations of content-control software, much of the debate surrounding management of the internet focuses on the ethical implications of filtering. Certainly, the majority of articles reviewed were anti-filtering in tone (see e.g. Sobel, 2003; Trushina, 2004; Cooke, 2007; Radom, 2007; McMenemy, 2009). The professional body for library and information professionals in the UK, CILIP, states that it "does not endorse the use of filtering especially for adult users but recognises that a number of libraries do use filtering systems especially if it is required by their parent institution" (CILIP, 2011, pp. 12-13) yet acknowledges the appropriateness of discouraging users from viewing illegal sites, "associated with child pornography, race hate or terrorism" or PCs being used "for other types of unlawful or undesirable behaviour – notably hacking, spreading viruses or as an aid to criminal activity" (CILIP, 2011, p. 12).

The ALA has been a vocal opponent of internet censorship in public libraries. In its Libraries and the internet toolkit, it is clear that it "does not recommend the use in libraries of filtering technology that blocks constitutionally protected information" (ALA, 2003, p. 3) and goes on to advise libraries that do use filtering software, "to set their filters at the least restrictive level in order to minimize the blocking of Constitutionally protected speech" (ALA, 2003, p. 10).

The Australian Library and Information Association (ALIA) supported the Australian government's Protecting Australian Families Online initiative for home use "but does not recommend the use of internet filtering technology in public libraries" (ALIA, 2007, p. 4).

Internationally, the IFLA Position on internet Governance is clear that “Measures which may be necessary to ensure the reliable operation of the internet, control spam, support intellectual property protection and enable individuals to protect their privacy must not be used to limit the rights expressed in the Universal Declaration of Human Rights, especially those in Article 19” (IFLA, 2005). The Standing Committees of the IFLA Libraries for Children and Young Adults Section and the Reading Section accepted a statement relating to the internet and children’s library services at the annual World Library and Information Congress in 2007. They argued that filtering and censorship do not work and advocated effective education of children, parents, teachers and libraries in internet use (IFLA, 2009).

Other ways of managing internet access

AUPs

“An acceptable use policy (AUP) is a document that a customer must sign and agree to before they are provided with access to the computer facilities” (McMenemy and Burton, 2005, p. 20). AUPs usually detail activities which are not permitted such as viewing pornography or copying copyright protected materials and “tend to be used by organizations to pass some element of liability onto the customer when accessing internet services” (McMenemy and Burton, 2005, p. 21). In relation to children accessing the internet, in the UK, an AUP usually has to be signed by a parent or guardian – in some libraries, the parent has to come to the library to complete the form, in some they do not.

Displaying an AUP prominently in the library is also recommended: “Posting policies is a useful deterrent. In addition to policies that warn patrons not to use the computers for illegal purposes, general library behaviour policies should be enforced, without regard to content viewed” (Minow, 2004, p. 11).

Having an AUP in place, however, does not guarantee that misuse will cease, for example, a survey of Indiana’s public libraries discovered that 67 per cent of respondents had experienced problems with users not following guidelines (Comer, 2005). Poulter *et al.*, found that all the libraries questioned in Scotland as part of the FRILLS project had an AUP but “Many responders thought that AUPs were too easily ignored” and in a minority of libraries, “users got no explanation of the AUP” whilst some thought “the legalese used in AUPs was impenetrable, especially to users for whom English was not their first language” (Poulter *et al.*, 2009, p. 5). Research with staff in Singapore’s public libraries suggests AUPs give staff confidence in managing internet use: “None of the librarians had problems enforcing these rules as IT policies are in place to prevent the downloading of software, access to instant messaging or chat software, gambling, hacking, pornographic and games sites in the library premises by blocking the URLs of these sites from the server in the library. This means users using the library’s multimedia stations to gain access to the internet have their boundaries restricted” (Heok and Luyt, 2010, p. 483). But as Kranich highlights, “The vast majority of citizens use the internet and other library materials responsibly, guided by the local library internet access policies and codes of conduct that address appropriate use and invoke disciplinary action if rules are violated” (Kranich, 2004, p. 16).

Booking systems

A popular choice of booking systems for public access PCs in the UK has been Netloan a Lorensbergs’ product which requires the library barcode number and PIN as

it interfaces with the library management system data to authenticate the computer user (McMenemy, 2009). This in turn has the potential to act as a deterrent to misuse, with the user knowing that history logs of use can be traced to individual users. In a study of public libraries in Africa, controls in place included restrictions on the length of time that users were allowed to spend on the internet (Chisenga, 2004).

Visual monitoring

As early as 1997, an article from the USA by an academic librarian considered the tensions inherent when there are “competing interests of computer users who wish to access sexually-explicit materials and those who find them offensive” in the library (Young, 1997, p. 49) and suggested reorganising the location of PCs. From an alternative perspective, Still and Kassabian also recommended addressing the issue by repositioning furniture, in this case to ensure PCs are on public view to “hinder inappropriate use of library terminals” (Still and Kassabian, 1999, p. 20).

Digital histories

As well as visually monitoring internet use, public library services may also monitor usage through the digital history users leave behind. For example, ALIA discovered that 67 per cent of libraries monitored use by library staff physically viewing users’ screens in the library (visual monitoring) and the collection of system data. In all, 66 per cent of libraries collected data primarily about the sites accessed by all users and the largest group of libraries use this data to monitor inappropriate internet access as well as to review filtering issues (ALIA, 2011). Staff may also have the technology to view user screens remotely (Poulter *et al.*, 2009).

User education

User education and training is one way in which staff can help library users help themselves to navigate the internet safely and legally (see, e.g. Kranich, 2004; Heins *et al.*, 2006; Byron, 2008; IFLA, 2009). McMenemy and Burton recommend that AUPs are “backed up with a robust internet skills approach to ensure customers know just what the internet does and what is out there for them and their children” (McMenemy and Burton, 2005, pp. 21-22).

Certainly, the literature reveals that public library staff are helping train and support library users with their ICT skills but this does not indicate whether this is in relation to accessing internet content. Jaeger *et al.* (2006), exploring the implications of the Public Libraries and the internet 2004: Survey Results and Findings funded by the Bill and Melinda Gates Foundation and the ALA, found that in the USA, ICT training is provided in libraries for seniors (57.3 per cent), users with no internet access at home (52.6 per cent) and adults pursuing continuing education (51.2 per cent). Similarly, in Australia, formal internet training was offered in 54 per cent of libraries some of which included training for parents: “Training aimed at parents and children was offered in 15% of libraries, taking the form of cybersafety, homework and tutoring, and sessions catering for parents, students and toddlers” (ALIA, 2011, p. 16).

Managing access to the internet in UK public libraries

The last major UK-wide study exploring access to the internet in public libraries was over a decade ago. Willson and Oulton (2000) reported the results of a questionnaire survey examining internet access, policy and controls completed by 111 PLAs in England, Scotland and Wales. They found that 71 per cent of PLAs imposed some form

of control on public access terminals, with filtering the most popular mechanism (52 per cent), blocking controls (23 per cent) and monitoring (16 per cent). AUP posters were displayed near internet terminals. The study showed that problems such as over and under-blocking arose as a result of filtering. Those in favour of controls were usually concerned with sexually explicit and/or racist material being accessed. Those against the use of controls would perhaps have them on the PCs in the children's library but PCs in public areas were visible and therefore self-regulating.

Data from the NETbase Survey, administered by the PN team on a quarterly basis found that of 41 per cent of all authorities in the UK in November 2002, almost all had an AUP in place whilst approximately 75 per cent of respondents had installed filtering software (Brophy, 2003). Research with almost 1,000 public library staff considering staff attitudes to the internet during this roll out highlighted their concerns about users accessing inappropriate material: "Spacey (2004) found that filters and firewalls installed to prevent this created their own aggravations. As well as slowing the system, staff also had to deal with annoyed users who could not access legitimate material which had been stopped by a filter" (Goulding, 2006, p. 197). Goulding found that the participants in her research (61 interviews with policy makers, strategists, senior public library practitioners and others with specific interests in public libraries) "were concerned about the policing of acceptable use of the facilities" but overall, "many study participants took a liberal attitude in relation to the use of People's Network facilities, although some were having to revisit their AUPs in the light of experience" (Goulding, 2006, p. 197).

More recently, a small-scale study in the UK involved a researcher using a "mystery shopper" approach visiting 14 different library authorities – eight in England, four in Scotland and two in Wales (McMenemy, 2008). In all, 12 PLAs allowed the researcher visitor access to the internet in spite of the researcher's lack of identification which included address. In just one of those 12 libraries, staff attempted to explain the AUP and in two of them staff logged onto the computer for the researcher and bypassed the AUP. The author found that internet filtering was inconsistent. He attempted to access a list of 25 different web sites and found that two libraries blocked nothing on the list whilst others blocked some sites. Chat sites, an advice site for gay teenagers and a gambling site were the most commonly blocked. Some blocking was overt and some was covert.

Blocking access to social networking sites is one way to manage internet access. A survey of the use of Web 2.0 technologies by public library staff which was completed by 60 per cent of Welsh public library services found that approximately 40 per cent of public libraries blocked access to social networking; RSS feed aggregators, blogs and Twitter, tagging and social bookmarks, instant messaging and multi-media file sharing. Restricting access (more so numerically for staff and children rather than the general adult public) was justified on the basis of security, organisational policy, and the safety of children, bandwidth, and misuse of work computers during work hours, inappropriate content (e.g. staff blogs) and distractions from work (Purdie *et al.*, 2010).

Research based on Freedom of Information requests to 32 PLAs in Scotland found that 24 used filtering software "to prevent access to illegal and/or inappropriate content" (Brown and McMenemy, 2012, p. 15) whilst the second most common reason, cited by nine authorities, was "to protect children and vulnerable users from inappropriate material" (Brown and McMenemy, 2012, p. 15). In the majority of authorities (27) there was a "release procedure" in place but it was not immediate for

content blocked by the filter. In 18 local authorities there was no training for staff relating to internet filtering whilst six authorities did offer training. In one authority there was training for nominated staff and in five it was included in their general staff training. The content of staff training was primarily the procedure for blocking and unblocking content (ten).

With the advent of Wi-Fi in public locations, research undertaken in 2008-2009 found that of responding PLAs in the UK (43 per cent), 47 per cent had implemented Wi-Fi, 28 per cent were planning to implement it and 25 per cent were not currently planning Wi-Fi (Insight Media internet Limited, 2009). In all, 67 per cent of PLAs who had Wi-Fi installed were using the existing infrastructure of the PN. The majority of hotspots provided filtered access to the internet (84 per cent) and was the same as PN filtering for 67 per cent. According to another contemporaneous study, the National Wi-Fi in Libraries Survey (Batt, 2009) of those libraries with Wi-Fi hotspots (58 per cent of 106 respondents), 53 per cent required users to ask for a username/password at the desk in order to use the service. In relation to security, 27 per cent thought encryption was in place, 29 per cent did not and 44 per cent of respondents did not know. A captive portal, which forces a client on a network to see a special web page before they are able to access the internet for authentication purposes and is usually used to highlight library services, was present in 71 per cent of libraries offering Wi-Fi. In all, 43 per cent of services linked Wi-Fi access to the library management system using library card numbers.

Some international comparisons

USA

The management of internet access in public libraries in the USA is shaped by legislation. In December 2000, the CIPA was signed into law. CIPA requires schools and libraries providing computers with internet access to use a TPM to protect children against accessing visual depictions in C-O-H, if they are to be eligible for federal subsidies towards the cost of internet access, known as “e-rate” funding. TPMs include filters, blocking specified sites determined by the library or “blacklists”; allowing specified sites approved by the library or “whitelists”; and Platform for internet Content Selection which allows web page creators to classify their own sites (Minow, 2004).

Although the constitutionality of CIPA was challenged by the ALA the US Supreme Court declared it constitutional on 23 June 2003, in a 6-3 ruling (Sobel, 2003). The CIPA requirements for adults differ; as material that is considered harmful to minors (H) is not restricted. Since adult users may request unblocking of the software, TPMs should offer the feature to disable – turning the entire filter off, and unblock – individually unblock a particular site. On this basis, the Supreme Court dismissed concerns about CIPA’s constitutionality: “The Court assumed that librarians would automatically and unconditionally disable filters upon request by adult patrons and permanently unblock erroneously blocked sites” (Sobel, 2003, p. 15).

In 2012, a district court held that the North Central Regional Library District’s filtering policy did not violate the US constitution. The suit had been filed by the ACLU of Washington in 2006 alleging that the library violated the First Amendment by refusing to disable blocking software at the request of adult library users. The district court’s decision was based on the premise that because branch libraries are small and only one library has a partition separating the children’s area from the rest of the library, the library’s refusal was justified (Chmara, 2012). In contrast, the US District

Court for the Eastern District of Missouri held in February 2012 that the school district had unconstitutionally blocked web sites that support/advocate on behalf of lesbian, gay, bisexual and transgender people whilst permitting access to web sites that condemn homosexuality. The school district was fined and has to submit to monitoring for 18 months. Chmara notes that these decisions do not change the rules on filtering in the USA but “If libraries use filters that block constitutionally protected material deemed harmful to minors and do not allow adults to disable filters, or fail to provide an effective unblocking system, those libraries may open the door to years of litigation and significant legal expenses” (Chmara, 2012, p. 3).

Since 1994, a national survey of USA public libraries has tracked the escalation of public library internet access. Formerly known as the Public Libraries and the internet study series, this research is now conducted as part of the larger annual Public Library Funding and Technology Access Study. Over the course of the last 19 years, the data suggest that the number of libraries using filtering software has increased to approximately 58 per cent based on the number of public libraries applying directly and with other organisations for e-rate funding since use of the funds requires implementing the requirements of CIPA (Bertot *et al.*, 2012) (Table I). According to Jaeger and Yan (2009), half of public libraries have implemented the requirements of CIPA. On the other hand, a rising and significant proportion of urban public libraries do not apply for e-rate funding precisely because they do not wish to comply with the stipulations of CIPA (Bertot *et al.*, 2012). For example, it was reported that the number of libraries who considered the CIPA requirements unacceptable had increased by 15.3 per cent from the 2006 survey to 33.9 per cent by 2007 (Bertot *et al.*, 2008) and by 2012, this proportion had decreased slightly to 29.1 per cent (Bertot *et al.*, 2012). As a result public libraries in poorer parts of the country are more likely to have filtered access (McClure *et al.*, 2007).

Canada

Dupelle noted that the last piece of research to ascertain whether Canadian public libraries used internet content filters was published in 2001: Curry and Haycock found that 21 per cent of public libraries used filtering software but only 5 per cent used it on *all* their terminals (Dupelle, 2007).

Australia

ALIA's (2007) survey of public libraries and internet filtering received responses from 104 out of a potential 548 services. Approximately 39 per cent of respondents noted that their library used internet filtering software on some or all of its public internet

Country/region	Percentage of public libraries filtering internet content	Year	Source
USA	58	2012	Bertot <i>et al.</i> (2012)
Sub-Saharan Africa	45	2004	Chisenga (2004)
Australia	37	2011	ALIA (2011)
Canada	21	2001	Dupelle (2007)
Denmark	6	2003	Kann-Christensen and Pors (2004)

Table I.
Extent of filtering in public libraries in a selection of countries/regions

access terminals. Two earlier surveys of internet use in public libraries which included some similar questions had found this to be 31 per cent in 2005 and 18 per cent in 2002. Figures from 2011 suggest that approximately one third of libraries – 37 per cent, were using internet filter software whilst 61 per cent were not (similar to percentages from the 2005 and 2008 studies). For 41 per cent of those filtering this was done at a low to medium level whilst 32 per cent of libraries who filtered access did so at a higher level. In the main this was to filter offensive content although other filtered items included large files, file sharing, games and social networking sites (ALIA, 2011).

Africa

A questionnaire sent to public libraries in ten English-speaking Sub-Saharan African countries supported by the Carnegie Corporation of New York revealed that of the 22 services responding, 19 library services had access to the internet. Ten of these services indicated that they controlled access whilst 12 tracked the URLs visited by users (Chisenga, 2004). The numbers involved in this study render it difficult to draw generalisable conclusions, but provide the only current indication of the prevailing situation in sub-Saharan Africa: further work in this region would be very beneficial to provide a wider picture.

Denmark

A study in Denmark based on a questionnaire survey of 243 public library systems (PLS) with a response rate of more than 83 per cent, found that only 2 per cent of PLS had installed filtering software on their public access computers (Pors, 2001). This had increased to 6 per cent by 2003 (Kann-Christensen and Pors, 2004). This comparatively relaxed approach to the provision of public internet access suggests that national culture impacts on decisions concerning filtering, with the example of a traditionally more liberal Scandinavian country appearing less likely to filter access.

Conclusions

This review of the literature pertaining to public access to the internet in public libraries in the UK and with some international comparisons has revealed that the provision of public internet access is now an important and well-established component of the role of public libraries in providing comprehensive and equitable access to information and knowledge. However, it is also seen as a potential problem due to the possibility of misuse, and in some cases this may have led to an over-cautious and therefore over-restrictive response on the part of library authorities. According to much of the research, simplistic technical solutions have disappointed. Meanwhile, legislation such as the DEA 2010 in the UK, and CIPA in the USA, increases the need for more effective solutions that can provide a balance between the need for legal compliance, the maintenance of an inclusive and welcoming environment for users, and the protection of key values such as freedom of expression and freedom of access to information. This review has highlighted the range of measures that are being adopted worldwide in response to this dilemma, and has also identified the paucity of research with regard to the current UK situation. It is proposed that the MAIPLE project will address this shortfall and enable a more comprehensive picture to be obtained. It is also proposed that it will enable the sharing of good practice and lessons learned.

Notes

1. www.lboro.ac.uk/microsites/infosci/lisu/maiple/about.html
2. <http://stakeholders.ofcom.org.uk/consultations/copyright-infringement/?showResponses=true&pageNum=1#responses>
3. The Children's internet Protection Act (CIPA) requires schools and libraries in the USA providing computers with internet access, to use a technology protection measure (TPM) to protect children against accessing visual depictions in child pornography, obscenity and harmful material (C-O-H).

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