Access to books for the visually impaired: minimising charity and maximising choice

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Abstract

This research aims to find ways of making access to copyrighted books for the visually impaired as much a matter of choice as possible by moving the provision of access away from models based on charity and of building the provision of access into the mainstream.

The work of third sector organisations providing access and attempts by the visually impaired community itself to enhance access are described. Realities effecting support workers in universities who have to help visually impaired students investigated. Legal disputes relating to copyright and anti-discrimination law are discussed. Developments in the ebooks market are monitored with a particular reference to attempts to build accessibility into devices like the Kindle and Apple products.

The research also looks at how best to secure access to online bookshops, web pages offering ebooks for download in public libraries and ebook libraries in academia. The current level of access being achieved in this area is assessed. Next ongoing attempts to improve access and differing views on the advisability of an approach based on enforcement of the Worldwide Web Consortium's accessibility guidelines or a more flexible approach emphasising user testing are discussed.

Conclusions and recommendations: changes to copyright law and further development and clarification of anti-discrimination law as it applies to publishers are necessary. Libraries should adopt a more innovative approach and field some of the specialist provision currently undertaken by charitable organisations. Accessibility to relevant websites is probably best provided by a combination of ongoing relationship building and with web developers and a more flexible approach than rigid enforcement of accessibility guidelines. Further research is needed on exactly how libraries could undertake specialist transcription most efficiently and on how to bring multi-national companies like Adobe, Amazon and other manufacturers of ebooks reading devices unambiguously into the ambit of anti-discrimination.

List of acronyms

DAISY: a combination of MP3 and HTML technology which enables a digital talking book to be navigated at various levels; DAISY has also become a shorthand for the consortium which developed this format.

DDA: The UK's Disability Discrimination Act passed into law in 1995 and now referred to as the Equality Act.

DRM: digital rights management technology applied to ebooks by publishers in an attempt to prevent piracy.

EU: European Union.

IPG: Independent Publishers Guild.

JISC TechDis: the section of the Joint Information Services Committee with responsibility for disability matters, including access to books and other educational material.

NFB: National Federation of the Blind, a nationwide organisation based in the United States which campaigns on behalf of visually impaired people.

NIMAS: National Instructional Materials Accessibility Standard.

RNIB: Royal National Institute of Blind People, an organisation based in the United Kingdom which campaigns for and provides services to visually impaired people.

SENDA: The UK's Special Educational and Additional Needs Act of 2001.

WBU: World Blind Union, an international umbrella organisation of national organisations involved in campaigning on behalf of visually impaired people.

WIPO: World Intellectual Property Organisation.

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Chapter 1 Introduction

1.1 Scope of research

This research seeks to examine in depth the issues surrounding access for visually impaired people to copyrighted books, online academic libraries and online bookshops, with a particular focus on the higher education and trade publishing sectors. The research concentrates on these issues as they manifest themselves in the United Kingdom, though where international developments impact the UK visually impaired community, they are noted and discussed.

In the context of this research the kind of access to books being considered is the same access enjoyed by those with enough sight to use print, in other words the ability to buy and own books or to borrow books free at the point of use from libraries, and the ability to read or study them with an acceptable degree of comfort. In the context of online bookshops and libraries, accessibility mainly refers to the need to prevent technical barriers which might prevent a visually impaired person from interacting with a site and also the need to make them as user friendly as possible.

For the purposes of this research the term 'visually impaired' is defined as referring to those who are totally blind or severely sight-impaired, and who can only access a book if it has been transcribed into Braille, been made available as an audio book or with the assistance of a computer or ebooks reading device. According to the Royal National Institute of Blind People (RNIB) (n.d.), an individual can be registered blind if their visual acuity is between three and six Snellen or less, that is if they can only see from between three and six metres or less what a fully sighted person could see from sixty metres. However in copyright law the definition of a visual impairment is functional rather than medical; the exceptions to copyright in the Copyright (Visually Impaired Persons) Act of 2002 apply to those who are prevented from handling a print book with an acceptable degree of comfort due to any physical disability (United Kingdom 2002).

Without specifying which definition it is using, the RNIB claims that there are three million visually impaired people in the UK (Mann, Marriott & Vale 2003, p.1). The

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World Blind Union (WBU) (n.d.) claims to represent 161 million visually impaired people worldwide.

Issues surrounding access for those with dyslexia are not directly considered, though again where developments in the dyslexia field impact the visually impaired community as defined above, they will be noted and discussed.

1.2 Background and context

1.2.1 Access to books

Initially when public libraries funded from public rates were founded from 1851 onwards, there was an attempt to incorporate the production of literature for the blind into mainstream processes and blind copyists were employed in local libraries for this purpose; however a process gradually set in whereby libraries transferred their stocks of accessible books and the transcription process into two production centres which later merged to become the National Library for the Blind. The production of accessible literature had effectively been moved into the charitable sector, and this was finally made official by the Kenyon Report of 1927 which recommended that public library services to the visually impaired should consist of the payment of a subscription to this newly-formed National Library (Owen 2007, pp.811-812).

The next two developments in the provision of literature to the blind were the foundation of the RNIB's Talking Books Service in 1935 and the setting up of the Calibre Audio Library by Monica Poels in 1974 (Owen 2007, pp.812-813). The British Library Act of 1972, which established the new British Library from various agencies, made no attempt to place new responsibilities on this new British Library or on other public libraries to take the needs of the visually impaired into account (Owen 2007, p.812). In effect attempts to improve access to books, particularly in the public library sector, continued to be driven by various dedicated individuals, and eventually an organisation called Share the Vision was founded to lobby public libraries and government organisations to implement measures which would increase the amount of literature made accessible, but things did not fundamentally change (Owen 2007, pp.813-820).

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This meant that the production of accessible literature continued to remain an essentially charitable activity, and until the mid 1990s visually impaired people who could not use a print book were largely dependent on voluntary sector organisations like the National Library for the Blind (NLB) as it was called then, the RNIB, the Scottish Braille Press or calibre Audio Library for leisure reading. Background literature does not cover the production and methods of distribution of accessible literature during the 1970s to the 1990s, but the primary method of distribution used by voluntary sector libraries like the NLB as experienced by the researcher and other visually impaired people was for the library in question to send out a catalogue of books which it had brailled and ask subscribers to make a list of titles they wished to read. The library would select a book from that list, and assuming there was a copy or that the single copy available was not out on loan to another subscriber, would post the book out. The reader would return it when he/she had finished, and then another book from the reader's list would be sent out, and so on. Readers had little say in what was transcribed, so although they could choose from the catalogue, it was still very much a matter of a visually impaired person reading what they were given to read rather than choosing the material to which they gained access. Even the wealthiest organisations with a high profile like the NLB or the RNIB would sometimes have struggled for resources, and smaller organisations like the Scottish Braille Press would have struggled even more.

Visually impaired people who could read braille were able to buy some books during this period. The RNIB produced some books for sale and made these books available to visually impaired people at a concessionary rate, sometimes as much as an eighth of the production cost. Figures on how many books were made available for sale in this way could not be found, but given that the RNIB were effectively operating at a loss and given the complexities surrounding braille production, numbers would have been small. The NLB did try to sell books, but since they asked for £4 per volume, and since a 200-page novel usually goes to five volumes of braille, the enterprise did not last long. The number of audiobooks produced by the publishing industry available for sale at this time would also have been relatively small, since as recently as 2009 Nielsen only had 91,848 audiobook titles on its database[1].

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The situation was not much different in higher education. Discussions the researcher has had with other visually impaired people who attended university in the 1980s and 1990s have all painted a very similar picture: even if there were some core texts in non-print formats (and there weren't always), access to journal articles and other necessary background and secondary literature was entirely dependent on the services of volunteer readers who might not be familiar with the topic. In the majority of cases students whose level of visual impairment made print unusable would simply have not gained access to large amounts of study material; one former student who studied French told the researcher of a conversation in which he was told by his tutor that "he was destined to be under-read."

Things changed for some in the 1990s when scanners which could not only scan a book but read the book out loud were developed (again background literature does not cover this). However these scanners only benefited those who could process audio material (so not those who were both severely deaf and blind), and they were also expensive (the researcher was only able to buy one for £2,500 because of a legacy). Books had to be squashed flat on to the bed of the scanner to allow the scanner's camera to read the text close to the book's binding and this damaged books. Scanners were developed with an edge or raised rim to get round this, but these scanners were even more expensive (the researcher saw one at an exhibition for £4,000).

There were also issues with the accuracy of these scanners. Even the best of them could be confused by irregular page layouts and users had to experiment to get the optimal contrast between background and foreground colours in the scanner's settings. As often as not the scanner's specification simply didn't contain the degree of contrast necessary. Consequently even straightforward pages could be misconstrued; words like 'the' could be rendered 'die.'

For all these difficulties visually impaired people did buy these scanners and try to read books with them. Later the software which read the book out was separated from the scanner hardware, which meant that those trying to access books in this way had to spend less money, but over and above the issues mentioned in the previous two paragraphs nothing could reduce the tedium associated with accessing books in this way. It was a physically and mentally tiring process to access a book

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by scanning it and to listen to the audio output in such a way that one screened out errors and got the gist of what was written on the page.

Technically speaking those visually impaired people who used scanners to access and scan a whole book were breaking the law, because their activities did not meet the three-step test in copyright law; there were no provisions or exceptions for the benefit of the visually impaired in the 1988 Copyright, Designs and Patents Act (United Kingdom 1988). It is probably safe to assume that most visually impaired people either didn't know this or, if they did know, didn't care (Mann, Marriott & Vale 2003, p.7).

However voluntary organisations could not afford to sit so lightly to the law and so consequently were entirely dependent on publishers and authors granting permission; the process of gaining such permission was inevitably a time-consuming and expensive business and requests for permission to transcribe a book were not always successful (Roos 2007, pp.879-916). In the higher education sector visually impaired students were dependent on the small stocks of books in alternative formats built up by the RNIB's Students Library and on help from volunteers until the Special Education and Additional Needs Act of 2001 made the provision of accessible literature the responsibility of universities. However the Act gave learning support workers no more freedom regarding transcription work than had been enjoyed by organisations transcribing trade books (United Kingdom 2001).

At some point UK voluntary sector organisations began campaigning for copyright reform. Literature does not document exactly when and how, though Owen (2007, pp.820-821) says that the umbrella organisation Share the Vision mentioned above was a key driving force in the move to campaigning generally, often turning up to speak at industry conferences whether conference organisers were interested in hearing from them or not. Eventually campaigning met with success and measures were taken to try and ease the pressures on third sector organisations producing accessible literature. In 2002 the UK passed into law the Copyright (Visually Impaired Persons) Act which enabled institutions or individuals to make a book accessible without the permission of the publisher, provided an accessible version was not commercially available and reasonably easy to obtain (United Kingdom

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2002). Nevertheless in 2004 Lockyer, Creaser & Davies (2004) of Loughborough University's Library and Information Statistics Unit published a survey which stated that only 4.5% of books published in the UK ever appeared in a format accessible to the visually impaired; in one of its later right to read campaign leaflets, the RNIB coined the phrase "book famine" (Marriott 2006, p.1). The actual percentage of books made accessible will vary from category to category (certainly from country to country), and indeed, since visually impaired students continue to graduate from UK universities they must, somehow or other, gain access to many more books than is suggested by the figure of 4.5%; nevertheless it seems that this figure of 4.5%, certainly more symbolic than actual, has become a sort of shorthand to represent the tiny number of books to which the visually impaired get access. Of course the issue is not just the number of books to which the visually impaired get access (many people with no visual impairment will not read any books), but also that the books to which they do get access are not the ones they might choose, or in the case of students in higher education, need to read.

Advocacy groups operating on behalf of the visually impaired believed that more far-reaching measures than those in the Copyright (Visually Impaired Persons Act) were required, and having combined to form the Right to Read Alliance they launched the Right to Read Campaign in 2003. The Alliance's initial campaign leaflet, *Overdue*, suggests that the Alliance was attempting to think more strategically about how to increase access to books and to adopt a much more coordinated approach than those described by Owen (2007, pp.813-820) above, because, as well as glancing at the potential benefits of the emerging ebooks industry, it contains recommendations targeted at the library sector, industry and government; it also calls for much closer contact between the visually impaired community and the publishing industry (Mann, Marriott & Vale 2003, pp.4-10).

Initially the Alliance focused on relationship building activities and setting up some pilot projects exploring the possibility of generating accessible versions of books from publishers' files; this is described in more depth in the literature review. Later the industry set up the Accessibility Action Group, which consists of leading representatives of the major publishing trade associations; the group publishes a quarterly newsletter which aims to raise the visually impaired's profile and concerns

amongst publishers and is the industry's key negotiator on matters pertaining to accessibility (Publishers Association n.d.). In the higher education sector the disabilities section of the Joint Information Systems Committee, JISC TechDis, have been involved in negotiations with publishers aimed at establishing a system in which publishers supply a PDF version of a book to learning support staff in universities, who then use that PDF to generate accessible materials for students (Publishers Association n.d.).

The Right to Read Campaign went global on 23rd April 2008 under the auspices of the WBU with the slogan "the same book at the same time and at the same price" (World Blind Union 2008). This global Right to Read Campaign represents the most direct attempt by visually impaired people themselves (as opposed to organisations acting on their behalf) to bring about a solution to the lack of access they face.

As well as this relationship building and campaigning activity, more fundamental developments in the publishing industry itself offer the potential for a much greater breakthrough in access, namely moves amongst publishers to digitise their catalogue, the rise of print on demand technology and the burgeoning ebooks market. The more publishers develop systematic archiving processes, the more chance there is of a book remaining in print and not disappearing before the visually impaired even know of its existence. The trade literature has reflected a growing interest in these topics, with particular attention being given to Amazon's ebooks reading device the Kindle, Apple's device the iPad and to possibilities surrounding books being accessed via mobile phones. If developers could incorporate accessibility features such as the ability to increase font size, to generate audio output both of the text of a book and of menu instructions and also the ability to communicate with Braille display technology, then the visually impaired would immediately have a chance of buying all those books to which that device had access.

However some visually impaired people may not wish or indeed have the income to spend on an ebooks reading device as many of them are in the low income bracket. It is therefore just as important to enable existing media players for the visually

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impaired to access ebooks, but this is currently prevented by the digital rights management technology (DRM) applied to ebooks to prevent piracy. DRM interprets assistive technology's attempts to render the text of an ebook as an illicit act and so disables the assistive technology (Kerscher & Fruchterman 2002). In November 2008, the WBU unveiled a new treaty at the World Intellectual Property Organisation (WIPO), which aims to enhance copyright exceptions for the visually impaired by legalising the circumvention of DRM which interferes with assistive technology. It would also legalise the import and export of accessible literature between different countries, thus, amongst other things, allowing the visually impaired in the UK to gain access to the large numbers of accessible books in the catalogues of libraries for the blind in the United States; the industry have opposed copyright reform and prefer to work through a legally non-binding stakeholders platform focusing on the technological developments needed to facilitate access and on the transfer of files over borders through trusted intermediaries operating under license (New 2008).

A further complication is the way in which existing media players for the visually impaired access digital information. This is based on the Digital Accessible Information System (DAISY) format, a combination of audio and HTML technology which allows a digital talking book to be navigated at many levels (chapter by chapter, page by page, sentence by sentence etc). The DAISY format was developed by the DAISY Consortium, a large group of talking books libraries and assistive technology companies spread throughout the United States and Europe, with the main aim of producing a common format in which accessible versions of books can be exported and imported worldwide (Kerscher 2001, pp.11-15). Over the years DAISY has become more than a format, and the term 'DAISY' is now used to described a technology capable of generating all formats of interest to visually impaired people. The DAISY Consortium has expanded and lists key information technology companies like Google and Microsoft as its 'friends', and the Consortium's website mentions an ambition to set up an global accessible bookstore and library (DAISY Consortium n.d.). Involving DAISY in any solution to access to books complicates matters in two ways. First, assuming publishers do not want to produce DAISY books in-house, the question arises as to how publishers' files can be converted to DAISY books in an economically sustainable

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manner. Second, since the DAISY Consortium is an essentially global organisation with a global agenda, involving the Consortium ties any attempts to find a solution to access in the UK to international developments,.

1.2.2 Access to websites

If ebooks are to form an important means of accessing books for the visually impaired, then the issue of access to websites cannot be ignored. There is no point in securing access to ebooks by whatever means if the websites on which they are made available for download are incompatible with assistive technology.

According to two disability activists in the US, Gerald Goggin and Chris Newell (2003, unpaginated), the difficulties that people with a visual impairment experience with the Web have their roots in the early 1990s when the Internet was first being discussed and built as an information superhighway; they claim that the needs of assistive technology users were ignored and that web accessibility has been trying to catch up ever since. They might have added that for a time it was impossible for totally blind people to access the Internet with a Windows machine, and they had to use specially designed machines with bespoke browsers on them which mimicked the processing of Windows browsers without actually being one; these machines were expensive and did not cope well with large Internet pages because of a relative lack of processing power.

Attempts to tackle the problem really began with the launch of the Worldwide Web Accessibility Initiative (WAI) and the drawing up of the Web content accessibility guidelines (Web Content Accessibility Guidelines Working Group 1999).

Early surveys found a low level of web accessibility in the UK. The Disability Rights Commission (2004) published a report to the effect that 81% of the 1,000 commercial websites it surveyed had significant violations of these guidelines. It seems that the situation in academia might not be much different; a survey of UK university home pages reported that 96% failed to conform to WAI guidelines (Kelly 2004), though in the context of this research the websites which are of most

relevance are the ebooks platforms provided by aggregators such as Ebooklib and their like.

The largest initiative on web accessibility in the UK is the See it Right Campaign launched by the RNIB in 2006. The campaign aims to promote the adoption of the web accessibility guidelines referred to above, and seeks to promote the provision of accessible information in all formats (Royal National Institute of Blind People 2006); those who make their websites compatible with the web accessibility guidelines are entitled to display the See it Right Logo on their site.

Meanwhile there is also the possibility of a fresh Europe-wide initiative on web accessibility, with the now former European Union (EU) commissioner, Viviane Reding, stating the belief that more rigorous enforcement of web accessibility guidelines issued by the Worldwide Web Consortium was essential to the successful implementation of a single market across the European Union (Reding 2009).

1.3 Broad research questions

From the above it would appear that there is no shortage of activity designed to address the lack of access to books and websites. Nevertheless broad questions do arise:-

- The fact that the visually impaired community feel the need to use the word campaign to describe their efforts to secure access to books and websites is interesting, so are relationships between the various parties involved essentially constructive or confrontational?
- Where should responsibility for making books accessible ultimately lie, with third sector organisations like the RNIB, public libraries or the industry, and is legal reform needed to promote accessibility?
- And finally where exactly do the best interests of visually impaired people lie when it comes to ebooks, particularly bearing in mind the fact that a majority of blind and severely sight impaired people in the UK are over the age of 65 (Brazier 2005, p.2)?

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The next chapter reviews in more depth what the literature has to say on these topics.

Endnotes

[1]. Mo Siewcharran of Nielsen Bookscan e-mail to Guy Whitehouse, 29 September 2009.

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Chapter 2 Literature review

2.1 Current activity and notions of responsibility

The seminal study on the number of books being produced in accessible formats is that carried out by Lockyer, Creaser & Davies of the Library Information and Statistics Unit (LISU) at Loughborough University which was published in 2004. Using the British National Bibliography they put together a random list of 2069 titles published between 1999 and 2003 and then checked the major producers of alternative format books, both in the third sector and in the mainstream publishing industry to see how many of those titles were made available in any alternative format; excluding abridged audiobooks, they concluded that while levels of accessibility varied from year to year (with a low of 2.1% in 1999 and a high of 8.3% in 2001), on average 4.4% of books were made available in a format a visually impaired person could use (Lockyer, Creaser & Davies 2004, pp.11-12). As noted in the introduction, this figure, or a figure like it, has become a shorthand to illustrate the shortage of books to which the visually impaired get access; for example the report which has formed the basis of negotiations at WIPO on enhanced exceptions for the visually impaired quotes a figure of 5% without questioning it (Sullivan 2007, p.14).

LISU also carried out a study into how public libraries were contributing to accessibility; the report by Kinnell, Yu & Creaser was published in 2000 but is out of print, and so had to be supplied internally to the researcher. Although the study was extremely comprehensive (all 208 library authorities were surveyed with a questionnaire which received a 64% response rate), the study is outdated in some respects because it was carried out before the Copyright (Visually Impaired Persons) Act was introduced. Nevertheless the report does contain some valuable statistics indicative both of aspects of the library service which are working well (94% and 90% of authorities offering home visit and mobile library services respectively), but also of those aspects which are not working well (only 5% having clearly defined policies specifically relating to the visually impaired)[1]. Helen Brazier of the National Library of the Blind used this report as the basis of her talk to the 2005 International Federation of Library Associations and Institutions

General Congress, in which she highlighted a lack of integrated management and slack standards (when the Internet was introduced there were no mandatory provisions regarding accessible equipment); she went on to say that "we look with envy at other countries where provision of accessible literature is integrated into public libraries and government provides funding" (Brazier 2005, pp.2-5).

There does not seem to be any substantive survey looking into the level of access to higher education books for visually impaired students; the LISU study mentioned above was primarily concerned with leisure reading and the RNIB's report *Where's my book* only investigates the accessibility matters affecting schoolchildren (Mann 2006a).

Advocacy groups produced a report called *Overdue* to coincide with the launch of the Right to Read Campaign in September 2003. The report introduces the principle of the same book being available to all at the same time and at the same price (Mann, Marriott & Vale 2003, p.2). It illustrates the problem with facts and figures such as 78 best-sellers not being accessible to 3 million reading-disabled people (Mann, Marriott & Vale 2003, p.5), and finished by making key recommendations aimed at improving access to books:

- The setting up of an access to a reading fund;
- The removal of VAT on audiobooks and ebooks;
- Moves on promoting access to the curriculum such as pilot projects in which books were generated from files provided by publishers;
- The development of an accessible e-publishing standard to enable reading-disabled people to access ebooks;
- And finally moves to improve library provision, such as the strengthening of library good practice standards by including requirements to replenish stocks of large print books and audiobooks when they fall below a certain level and the provision of funding to ensure that libraries pay a visually impaired person's subscription to organisations like the RNIB's Talking Books Service

(Mann, Marriott & Vale 2003, pp.9-11). The style and tone can be quite emotional at times:

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Enough is enough. The Government have said they support and endorse

efforts to ensure people with sight problems have fair and equal access to

published material. But we need action. Why doesn't our Government take a

leaf out of other countries' books and fund access to reading? Why doesn't

the Treasury remove VAT from unabridged audio books? Why don't all

publishers help charities to provide alternative formats of their books?

(Mann, Marriott & Vale 2003, p.2).

Other leaflets produced for the campaign continue the hard-hitting style, introducing the phrase 'book famine' and using the technique of personalising the issue by including quotes from visually impaired people such as this one from an Emma Bullin who lost much of her sight in 2003 because of a brain tumour:

I have always loved reading and so the despair I now feel at not being able to

find books I can read is almost indescribable. I've actually broken down

sobbing in bookshops. I'm not asking for anything special, I just want the

same as everyone else – to be able to read the book I want (Marriott 2006,

p.1).

The Right to Read Campaign was the subject of a Masters thesis written in 2006 by an Oxford Brookes University Student, Russell George. Parts of the thesis are not directly relevant as they deal with matters pertaining to the production of large print, but George (2006) used a project designed to pilot test the production of alternative format versions of books from files provided to the RNIB by publishers as a means to examine the state of relations between key stakeholders in the publishing industry and the visually impaired sector. Having interviewed key people in the project including a spokesperson for the Department of Trade and Industry, the head of HarperCollins's digitisation programme, Dr Alicia Wise then working for the Publishers Licensing Society, representatives of the now defunct Audiobooks Publishers Association and David Mann of the RNIB, he painted a complicated, sometimes contradictory picture and made statements that can appear rather sweeping, particularly when one bears in mind that the project he was reviewing was still in its early stages. For example he concluded that the publishing industry wanted to help and believed that the production of books could be made profitable based purely on the fact that Macmillan, HarperCollins and other large publishers

were prepared to be in the project (George 2006, pp.49-50), ignoring the fact that the behaviour of some larger publishers says nothing about the attitudes of medium-sized and smaller publishers; the extent to which publishers were prepared to help and what they ultimately believed about the profitability of meeting the needs of the visually impaired could have been better assessed at the end of the project, not at the start. His assessment of the controversies surrounding copyright (dealt with in more depth below) is quite simply wrong; he stated that accessibility is no longer dependent on the goodwill of publishers (George 2006, p.36), thus missing entirely the dispute surrounding DRM. He made the unsubstantiated statement that the audiobooks market was "about to grow exponentially" (George 2006, p.67), and in his brief discussion of ebooks he appeared to confuse the process of digitisation in the industry with a generalised switch to XML-based production (George 2006, pp.39-40).

Nevertheless his analysis of the pressures on publishers caught between notions of corporate responsibility and not wanting to be on the moral low ground while not wanting to do anything which would harm their profits, and his description of the government's adoption of an essentially hands-off approach (George 2006, pp.43-50) is shrewd. The thesis also contained an intriguing reference to visually impaired individuals "swamping publishers every week with requests for accessible versions of books" (George 2006, p.50).

In 2008 the Accessibility Action Group was set up to promote accessibility matters within the industry, and their quarterly newsletters, edited by the head of the group, Dr Alicia Wise, are the main source of information on other, more recent collaborative projects and on accessibility-related measures the industry is taking. As the number of projects has increased, the newsletters have grown in length, but essentially they all contain an initial exhortation to help create a sea change in the numbers of books to which the visually impaired can gain access and then a list of activities and initiatives usually with no more than a paragraph given over to each.

The third newsletter noted with obvious approval the launch of a new website or publisher lookup service on which publishers leave details of people to be contacted by learning support workers with requests for an electronic copy of a book (Wise

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2008, p.3). Mostly the tone of these newsletters is neutral; for example in the sixth newsletter the WBU's lobbying at WIPO for enhanced copyright exceptions was reported without comment (Wise 2009, pp.12-13), though the neutral tone was dropped slightly when discussing another copyright-related dispute over the text-to-speech function of the Kindle 2 where Dr Wise comments that the dispute "has generated more heat than light" (Wise 2009, p.10).

2.2 Legal reform and the trusted intermediary model

2.2.1 Legal reform

Disputes on this topic revolve around copyright law and the DDA. While arguments over the DDA are specific to the UK, the ongoing disputes over copyright have an international dimension.

In April 2004 the WBU (2004) issued a policy statement on copyright legislation as it applied to those who suffered from any sort of print disability. While recognising copyright as providing a legitimate form of economic reward to rights holders and voicing support for collaborative initiatives with publishers designed to promote access, the declaration amounts to a call for substantial reform of copyright legislation in line with four key principles:

- access to the written word is a human right (in accordance with the relevant articles of the United Nations Declaration on Human Rights) and that therefore any barriers to access to the written word, whether economic, technical or legal are inherently unjust and tantamount to discrimination;
- print-disabled people are entitled to access information at the same time as their sighted colleagues and at no greater cost;
- those countries which did not have exceptions or limitations to copyright for visually impaired people should introduce them, and that uniformity of such copyright exceptions across the world was desirable;
- that limitations to copyright relating to the print-disabled should extend uniformly to all forms of print disability, including dyslexia.

As well as these four broad principles it highlighted two particular ways in which it felt that print-disabled people were adversely affected by copyright. Firstly the complexities surrounding the import and export of copyrighted material was making it difficult for accessible versions of copyrighted material made in one country to be made available in another. Secondly, a combination of DRM which interpreted attempts to access material using assistive technology as an illicit act and the legal protection afforded to DRM was creating a situation in which print-disabled people were being denied access to digital resources and in which this form of exclusion was being legitimised (World Blind Union 2004).

An enhanced version of this policy statement was issued in the form of an open advice note to governments; this advice note warns against limiting copyright exceptions to specific formats, being overly prescriptive on who was allowed to undertake the production of accessible literature, called for a copyright framework which enshrined permissions rather than exceptions and finally stated that the creation of accessible versions of a work from less accessible originals on a not-for-profit basis and with controlled distribution was not an infringement of copyright and therefore should be allowed to go ahead without the permission of rights holders (Mann 2007); in other words some of the exceptions introduced in the UK and some others should be made universally available.

This comes from a sense that being dependent on rights holders' permission and licensing regimes has done the cause of accessibility real harm. Johan Roos was a librarian involved in producing literature for blind people and is therefore in a good position to appreciate the difficulties licensing regimes have caused. He described some of them in a 2007 article in the Journal Library Trends (Roos 2007). Some publishers applied fairly harsh terms in the licenses they granted to libraries for the blind; for instance they would often insist that licenses had to be re-applied for after a certain time which was onerous from an administrative point of view, they would assume that they were in a better position to determine how many accessible copies were required rather than the library itself, and they would often only grant permission for books to be made available as an audio book only if it could be played on equipment which was not commercially available (that is to say the old, specially-adapted talking books machine rather than a tape recorder or CD player).

Another important point to emerge from this article is that these arrangements have effectively forced accessibility publishing to develop in a technologically different direction to mainstream publishing, the effects of which are still felt today (Roos 2007, pp.879-916).

The claim that barriers to access are tantamount to discrimination might seem a little contentious, as it could be taken to imply that rights holders are actively setting out to deliberately and purposefully block access for the disabled. Similarly, the WBU's claim that same price access to the written word is a human right might seem too idealistic and even utopian, but it is understandably and maybe even necessarily so. A critique of copyright law influenced by notions of human rights is very much in the spirit of the times and has real echoes in discussions of copyright in academic and more mainstream circles. Lessig (2004, unpaginated) claims that rights holders are set on destroying the public domain and doing away with traditional fair use exceptions. He, Lessig (2004) cites Jack Valenti as saying that copyright should exist for ever minus one day and points out how large corporations have bought favours from Congress which have resulted in copyright terms being continually extended, such as in The recent Copyright Term Extension Act. Gillespie (2007, unpaginated) claims that rights holders aim to use DRM 'to turn all fair use into fared use'.

Some visually impaired thinkers have even used arguments which go beyond appeals to notions of human rights as a means of promoting copyright reform. Roos (2007, pp.879-916) quite rightly points out that libraries for the blind are not just libraries in the traditional sense but also publishers of accessible material. He suggests that libraries rather than the original rights holders should be acknowledged as the rightful owners of accessible copies of material they produce. He goes on to ask whether, since libraries are in effect publishers, they should own the intellectual property in an accessible copy of a book.

The WBU's concerns about DRM also find an echo in more mainstream and academic circles. The main criticism is that DRM has effectively brought about a privatisation of access to information which has no regard for the rights traditionally enjoyed by consumers (Gillespie 2007, unpaginated). Literature produced by

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mainstream commentators tends to worry more about the possibility of this happening rather than offering a large number of concrete examples to back up their point. It is different in the literature being produced by organisations representing the print-disabled. The case of a blind woman who purchased the PDF version of a book from Amazon, only to find that it was inaccessible because the security settings of the DRM applied to the book interpreted attempts to access the book using a screen reader as an illicit act, was raised at the INDICARE seminar looking into how DRM affected blind people; she received no help from Amazon or from Adobe who claimed that removing the DRM settings would render the book liable to piracy, and there is a widespread belief she is not the only blind person to experience this (Jeges & Kerenyi 2006).

The first chance to effect real change in the UK came in 2006 when the government asked Andrew Gowers to conduct a review of UK intellectual property law. The RNIB issued a submission to the Gowers review put together by David Mann which was infused with the radicalism of the WBU policy statement and advice note. It noted that publishers are not obliged under the DDA to produce accessible copies of books (Mann 2006b, p.6). It highlighted the need for legal change to allow the cross-border transfer of accessible versions of books and of electronic files to allow the production of accessible books (Mann 2006b, pp.9-11). It also criticised the provisions in UK law for resolving disputes caused by DRM blocking legitimate access, saying that the procedures in Section 296Z of Statutory Instrument 2003:2498 are cumbersome and unworkable (individuals have to appeal to the secretary of state for culture) (Mann 2006b, pp.14-15).

Having outlined the problems it proposed a radical solution, the introduction of a right of access into copyright law; the aim of this new right would not be just to provide solutions to current causes of concern but to place an obligation on rights holders and publishers to proactively cooperate with attempts to enhance access and increasingly to produce accessible versions of books themselves (Mann 2006b, pp.16-17).

Nicholas Joint (2006, pp.168-172), writing from the point of view of a university librarian tasked with supporting visually impaired students, is highly critical of the

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Copyright (Visually Impaired Persons) Act. He claimed that the Act has effectively allowed publishers to escape any responsibility for the provision of accessible versions of textbooks and placed the burden of making accessible material on to already overworked library staff who have the further worry that passing on inadequately scanned material to disabled students could be counted as a violation of an author's moral right not to have degraded versions of their work circulated (he did not offer proof of his claim, for example by citing comments or articles on the topic being produced by other librarians or learning support staff); In fact an earlier survey of librarians in 230 further education institutions by Harris & Oppenheim (2003, pp.243-257) suggests that librarians' difficulties might be down to their own lack of knowledge and training (6 hadn't even heard of the SpNDA), their lack of consultation with students over their requirements (only 37 colleges reported they did this) and a lack of funding. Nevertheless Joint (2006, pp.168-172) firmly believed legal reform was necessary and praised legislative developments in the United States, specifically the Individuals with Disabilities Education Improvement Act of 2004, which requires publishers to deposit a file conforming to the National Instructional Materials Accessibility Standard (NIMAS, a variation of the DAISY standard) in a federally funded repository when the state buys the book for inclusion in the school curriculum; he clearly wished to see something similar in the UK, and Mann (2006b, p.16) was supportive of the idea. Interestingly there was a call by advocacy groups in the US to apply a similar solution to the provision of accessible textbooks in higher education (McCarthy 2007); however, this idea comes against the background of a growing movement in the US demanding free textbooks in general (Caldwell 2008).

Returning to developments in the UK, Gowers (2006) did not even mention these concerns when he published his review, let alone make any recommendation. In any case advocacy groups led by the WBU had always continued high level meetings with WIPO which eventually led to two studies being commissioned into how visually impaired people were affected by copyright law.

The first was produced by Nick Garnett and was published in 2006 at the 14th session of the Standing Committee on Copyright and Related Rights (SCCR). The study looked at the impact of DRM on the visually impaired (and also distance

learning). It concluded that there was no DRM system that could accommodate or exactly reproduce the exceptions that currently existed for the visually impaired or for which the visually impaired were aiming (Garnett 2006, pp.25-34). The study recommended that the idea of the trusted intermediary model should be pursued, in other words a system in which files were transferred by publishers to a trusted repository and material was accessed through authorised people logging on to the system (Garnett 2006, pp.88-96).

The second was produced by Judith Sullivan, formerly a civil servant at the UK Intellectual Property Office. It was first aired at SCCR 15 in 2006 and formally published in 2007. The sole focus of this study was existing copyright exceptions for the visually impaired and whether they help or hinder access. The report analysed exceptions in existence (Sullivan 2007, pp.28-44). It illustrated the complexities surrounding the import and export of accessible books and files caused by having to take into account the jurisdictions of the country from which the book is exported and into which the book is imported, and acknowledged that the inability of organisations involved in the production of accessible literature to share files and books causes a lot of duplication and waste of money (Sullivan 2007, pp.48-64). Finally it used case studies to illustrate how badly-crafted exceptions or the lack of any exceptions negatively impact the production of accessible literature, and how well-crafted exceptions help it (Sullivan 2007, pp.65-97). The study effectively confirmed that the problems that the WBU had stated existed, actually did exist (Sullivan 2007, pp.98-132).

Particularly interesting is the study's attempt to analyse the way in which rights holders respond to requests from organisations requesting permission to reproduce a book in an accessible form or to share it with visually impaired people in other countries. During the financial year ending 30 June 2006, the Royal New Zealand Foundation for the Blind (RNZFB) tried to import 103 titles from the UK; the RNIB had already obtained worldwide distribution rights for 65 of these and the RNZFB obtained permission to import ten more, six from the same publisher; however all remaining 28 requests were unanswered and unacknowledged by 26 October 2006 (Sullivan 2007, p.79).

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Sullivan's (2007) report was very cautious in tone, with every single statement referring to visually impaired people's right of access being immediately counterbalanced by reference to the concerns of rights holders. She cautioned against well-meaning changes to copyright that make matters worse, citing the case of what happened in Germany when copyright law was altered to put print-disabled people's interests on a firmer legal footing. Limitations to copyright for the print-disabled which had not existed in Germany (production of accessible literature had continued on the basis that, since rights holders did not take the trouble to object, there was no real need for legal provision) were introduced which allowed the making and distribution of multiple accessible copies in return for a 12 euro payment to rights holders; this has had the effect of reducing the amount of accessible literature being produce because of the consequent drain on the resources of the charitable institutions who produced it (Sullivan 2007, pp.70-71).

Sullivan (2007, p.97) argued that universal access is not a reality in the sighted world. She cited situations where material may be inaccessible because it is not in a person's native language or because it is too expensive. One might accept that the point about language barriers has some force to it, but the argument concerning expense must be regarded as weak; a sighted person who cannot afford a book stands a good chance of obtaining one from a library or from a friend.

Sullivan (2007) equivocated when it comes to solving the issues caused by DRM. She suggested that a form of DRM technology might be developed which prevented all forms of external access other than that afforded by recognised screen readers and Braille displays, but is this really feasible? If her suggestion were acted on it might even harm disabled people's interests as it would almost certainly involve publishers having to make available on their websites a separate file of each book with that particular form of DRM attached. This would be logistically highly complicated and incur greater costs meeting the needs of the print-disabled. On the other hand in her recommendations section she stated that exceptions might be the best way forward on the matter (Sullivan 2007, p.135), though note here the 'might', a word which appeared often in her recommendations section (Sullivan 2007, pp.134-137).

In any case now that it is legal in the US to circumvent DRM to assist blind people using screen readers (Kramer 2007), visually impaired people in Europe have an incentive not to settle for anything less. Sullivan's (2007, p.135) conclusion on the import and export of accessible literature was that licensing might be the best way forward.

It is not easy from the literature to assess the responses of publishers to arguments over copyright or the DDA. Writing in Sconul Focus Gillian Price (2007, p.27), Chairman of Accessible Library and Information Services (ALIS) in Wales, reported that when librarians raised issues concerning access for visually impaired students one publisher asserted that reading was a privilege not a right, and concluded that if such an attitude was typical then much work would need to be done to bring about an improvement in affairs.

In November 2008 the WBU officially unveiled a treaty which would, amongst other things, make it legal for the visually impaired to circumvent DRM which interfered with their technology or seek assistance to do this, and also legitimise the movement over borders of accessible books and files without the permission of the rights holder (New 2008). Coverage of developments on this front in Intellectual Property Watch suggested that publishers oppose further copyright reform regarding it as premature (New 2009a, 2009b), but it is not easy to isolate any attitudes unique to UK publishers or publishing associations on the matter from what New (2009a, 2009b) wrote. A report on the ebooks industry put together for the RNIB by Simon Holt, never formally published, glanced at the legislative issues and quoted a Clare Hodder of Palgrave Macmillan and a representative of Atwool agents as being sceptical of any further changes to copyright or any attempt to use the DDA to force publishers to hand over files of books or generate alternative formats as Mann (2006b, p.16) and Joint (2006, pp.168-172) had envisaged (Holt 2009, pp.77-78)[2].

2.2.2 The Trusted intermediary model

While the arguments over legal reform continue, the idea of the trusted intermediary model recommended by Garnett (2006, pp.88-96) has been pilot tested in the UK; this is the project that George's (2006) Masters thesis looked at in its early stages. A

full report on what happened was produced in 2007 by Jim Russell of Russell Associates who had overseen the project (Russell 2007).

The idea behind the model is that publishers place master files in a secured digital repository. Typesetters edit these files and send the results to the RNIB, which then uses its own XML schema to generate accessible copies in different formats from the one edited master file.

Although Russell (2007, p.6) claimed that the trusted intermediary model gives publishers a chance to demonstrate their sense of corporate responsibility and that they take the needs of the print-disabled more seriously, his report did point out that one firm used a student on a temporary work placement to do much of the legwork involved, and it did refer to "conflicts of resources and interests" (Russell 2007, p.13).

The report speculated that more strategic, long-term benefits might be derived from the pilot project. Russell (2007, pp.18-21) raised the possibility of accessible copies of books being sold through the mainstream book trade. He noted that for this to happen long term partnerships have to be built between key players in the industry. The Onix standard has to be developed to incorporate details of accessible formats (specifically DAISY variants, contracted, uncontracted or maths Braille and large print font and print size). Each accessible copy of a book needs its own ISBN number. Building partnerships with the key organisations involved might do much to raise the profile of print-disabled people's needs and to prevent them from fading from the industry's agenda.

The report also correctly noted that this approach takes advantage of the expertise built up over many years by organisations involved in producing accessible material (Russell 2007, p.24). Dealing with images in texts involves reproducing diagrams along with verbal descriptions in such a way that the visually impaired can make sense of them. One other advantage not noted in the report is that this approach has the potential to reach the whole of the print-disabled market regardless of the technical ability of the customer. Unless Daniels's (2006) idea of digital content being marketed through dedicated terminals in existing bookshops becomes a reality, the only visually impaired people who will be able to benefit from ebooks

would be the technological elite who are not deterred by all the technical challenges of owning and maintaining an accessible computer and downloading material from the web and copying it across to iPods or other portable players. This model caters to the needs of those who need all the technical work done for them, and into the bargain it caters to the needs of those with additional extra needs such as the deafblind.

The model does however have its limitations; Russell (2007, pp.13-16; pp.29-37) noted three of them. Leaving aside the inevitable teething problems (missed deadlines for file delivery, files not being found, mergers and take-overs in the publishers concerned), the model is heavily dependent on external finance to meet the costs of setting up the repository. The question arises as to whether finance will be forthcoming on an ongoing basis unless interested parties think there is a worthwhile return to be had on their investment.

Second the financial analysis section of the report highlighted the economic sensitivity of this model. Of course the figures are based on an imaginary price for each kind of book, but conclusions can still be drawn. One is that the model depends on publishers and rights holders being prepared to accept reduced terms, and the number of copies that need to be sold for a break even point can vary significantly depending on the terms rights holders set and the format being produced. Another is that while large print has some potential to generate revenue streams, the format most likely to be profitable is DAISY synthetic audio; Braille seems bound to generate a loss. This has clear implications for the quality of access that the model will be able to produce.

Finally there is the issue of the state of publishers PDFs. The report noted that these were of very poor quality, with PDFs being sent in for single pages of books, title pages of a book, and individual chapters; even when PDFs of a book did arrive it was in a state requiring a great deal of editing work before it could be fed into the RNIB's XML schema (Russell 2007, pp.13-17).

However, the real problem with the model is one of scale; the report does not really address this. According to the Booksellers Association (n.d.), 115,420 books were

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published in the UK alone in 2007. Russell (2007, p.5) estimated that if the RNIB switched to xml-based production methods it could double the number of accessible books it produces; however, as he notes, it currently only generates about a thousand each year. Even if xml standards converge in the publishing industry, the method is too labour intensive even for simple mass market titles. This effectively means that the visually impaired would continue to get what they are given rather than what they choose to read. Russell (2007, p.23) admitted that in the short to medium term the model will only generate a step change in the number of books made available in accessible formats, but argued that with technological developments this could become a 'sea change'. But this would need changes of a highly significant order, such as the installation of terminals in bookshops that could generate accessible copies on demand; furthermore any system would have to find a way either of introducing the kind of expertise in presenting material accessibly built up by organisations like the RNIB to mainstream typesetters, or of automating that knowledge, and no one seems to have speculated with any seriousness on how that might happen.

Given the limitations of the trusted intermediary model, it is worth looking at whether visually impaired people's interests might be better served by developments in the mainstream ebooks market.

2.3 ebooks

2.3.1 Ebooks in academia

The early literature on ebooks in the higher education sector was not positive. Thompson (2005, unpaginated) documented in great detail a series of failed ventures based on unsustainable business models, second-rate content being offered and costly digitisation procedures. The early literature from librarians, while acknowledging potential advantages of ebooks such as enhanced searchability and remote access, was nearly always critical complaining of the complexities of licensing, their inability to make archival copies of material and models which only allowed one user to access a book at a time (Algenio & Thompson-Young 2003, pp.113-128, Ball 2006, pp.28-31).

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However a more positive picture began to emerge, at least in the US. Herther (2005, pp.45-53) reached the conclusion, based on interviews with many people in the industry, that ebooks were at an evolutionary stage with the market gradually taking shape and reaching maturity. Perlman (2006) noted (with displeasure) that in some American universities electronic resources were becoming so popular and print-based resources so disliked by students that university authorities had had to change the rules to the effect that a certain number of print-based resources had to be quoted in bibliographies for students to receive their degrees. Rowlands *et al*. (2007, pp.489-511) published a study of students' use of ebooks based on deep log analysis showing that use was growing and that the variety of disciplines in which ebooks were popular was increasing. Just (2007, pp.157-164) also stated that ebooks were being more widely used in a wider variety of disciplines, though he highlighted the continuing problem that not all university-level textbooks are made available electronically.

Wiley launched a push to make provision of university textbooks exclusively electronic (Chillingworth 2007). Springer have set a precedent of removing DRM from their books and are developing a business model based on the idea of making books available in interlinked databases, an idea which is proving economically successful; the approach brings the benefits associated with large-scale publishing of quality material and also saves Springer the effort of marketing large numbers of books individually (McClure 2007, pp.61-63). The most dramatic example of a publisher recording profit has come from O'Reilly, who issued a press release to the effect that profits from ebooks had risen by 104%, whereas sales from print books were declining by double-digit figures each year (Savakis 2010).

UK-based publishers have also put out upbeat messages. Some have begun to find that ebooks are generating real income streams (Bury, Davies & Barnicoat 2007). Oxford University Press expanded the number of ebooks they offer for sale to Individuals (Smith 2008, p.4). *The Bookseller* also reported that a surge in the number of applicants to universities had meant that academic publishers had experienced healthy growth in sales, with several key UK publishers also being quoted to the effect that ebooks sales were increasing (Gallagher 2010), and Cambridge University Press announced that they intended to launch their own

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ebooks platform, with 10,000 front- and backlist titles being made available by the Spring of 2010 (Neilan 2009a).

However the literature produced by academia and UK university librarians, although more positive than the literature quoted at the start of this section, is still cautious in tone. Two librarians from Plymouth University told a regional conference on ebooks that they had decided to start to purchase ebooks as part of modernising the library offer, but after collecting students' reactions to some ebooks platforms and looking at the price for multi-user access, they had decided to purchase a small number of books from MyiLibrary and to use Dawsonera for occasional, one-off purchases (Tripplett & Greig 2008).

In 2009 the Joint Information Services Committee (JISC) National Ebooks Observatory Projects (Joint Information Services Committee 2009) finally produced its reports on ebooks usage in UK universities. The aim of this project was to focus on ebooks primarily from the users perspective by looking at how usable they were and at promotional and currency issues (whether the edition of the ebook was the same as the print edition).

Sixty-one students and academics from 10 universities took part in the project, answering questionnaires on their experiences of using ebooks from MyiLibrary and Kluwer/Obid on the subjects of business management, engineering, media studies and medicine (Joint Information Services Committee 2009, p.2). Although users found that ebooks were excellent for quickly finding facts and small pieces of information, they reported that ebooks were not conducive for periods of extended reading and were difficult to scan (Joint Information Systems Committee 2009, p.3). They also reported that within-page images and tables were not presented well with Zoom often destroying page format (importantly for accessibility fonts and screen contrasts were poor), and that the screen space was poorly used with only parts of a page being displayed (Joint Information Systems Committee 2009, pp.3-4). Students complained that they were not made sufficiently aware of ebooks in general, and academics were not always sure how to find out what was available (Joint Information Systems Committee 2009, pp.4-5). Students appreciated what interactive features there were, but they wanted more, and there were complaints

about ebooks only being available in out-of-date editions (Joint Information Systems Committee 2009, p.7); the report concluded with six recommendations, most of them suggesting that these issues be addressed, but the most interesting being the second which called for the potential for offering access to the curriculum of ebook reading devices and mobile technology to be looked into (Joint Information Systems Committee 2009, p.7).

It is even possible to detect a cautionary note in the writings of some US university librarians on a blog called TeleRead. Dan D'Agostino is described on the blog as the Collection Development Librarian at a large research library. He reported concern amongst some US university librarians that the large collections of ebooks they have amassed are grossly underused, or at the very least under-read, reinforcing the findings of the JISC project mentioned earlier that users did not really read ebooks for any great length of time; he went on to point out that with Google on the verge of settling its lawsuits, the growing acceptance of ebook reading devices and fondness for smart phones which, he claimed, do make ebooks work, there will be a mismatch between the collections librarians have amassed and the platforms on which students want to access them. He also reported that US publishers are split on the issue of allowing their content to be used on such devices (D'Agostino 2010), and interestingly there is evidence from the Gallagher (2010) article cited above that UK publishers are unprepared for this change.

So it seems that the idea of ebooks is popular, and the problem has more to do with the way they are delivered rather than the concept of an ebook itself; after all there is no real reason for arguments over whether academic textbooks will be accessed on ebooks reading devices to reverse the trend towards the acceptance of ebooks, even if it might create obstacles in the short term. What about electronic editions of popular fiction and non-fiction?

2.3.2 Ebooks and trade literature

There has been so much written on this topic that one has to be ruthless in selecting only literature that throws light on the underlying trends and issues which will determine the success or otherwise of ebooks in this field. Opinion pieces have been

mostly ignored, except where they are backed up by facts and figures. The two issues of relevance are the interlinked themes of ebooks reading devices and pricing models, and second the issue of DRM.

As in the area of ebooks in academia, the early literature was cautious and tended to stress potential problems as much as the opportunities. Thomson (2005) concluded that optimism concerning ebooks and fiction might ultimately be misplaced. In 2006 a 74-page report prepared for the Booksellers Association quoted sales figures for ebooks of $179,110 million (Daniels 2006, p.14). However the report concluded that marketing ebooks would pose significant challenges for retailers in the UK; although W.H. Smith had formed a strategic alliance with Overdrive, other retailers lacked the digital know-how to compete and would lag behind Amazon in their capacity to deliver digital content (Daniels 2006, pp.32-34).

The key point of interest to arise from the report is that even in 2006 people in the industry were concerned about the way ebooks might shift the balance of power that had existed previously, with Daniels (2006, p.32) pointing out that consumers were already "pulling markets" in certain directions. Daniels (2006) called for funding to enable a joint taskforce put together by the Booksellers Association and publishers to conduct research into consumers' views on ebooks, but a year later funding had not been forthcoming (Bennett & Holdsworth 2007), and in March 2008 Neill (2008) reported that the idea of an industry-wide digital task force had been dropped, with publishers preferring to work on their own initiatives and to support only the development of certain metadata standards such as Onix. There was even a moment when retailers, fearing that publishers might use ebooks to sideline them altogether, were preparing to lobby for the right to distribute ebooks (Page 2008), though their fears seem to have been unfounded for the moment.

2007 saw what might best be described as steady progress, with some ebooks devices gaining acceptance amongst customers. The Iliad sold out in Holland an hour after going on sale, and the Sony Ereader enjoyed some success (Jones & Neill 2007). Amazon's device the Kindle has also met with qualified approval; there was general agreement that the technology underpinning it and other devices, electronic

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ink, has solved most of the problems associated with the unpleasantness of having to read for long periods on an LCD screen (Shreeve 2007).

There were dissenting voices, particularly regarding Amazon's terms and conditions governing access to ebooks on the Kindle. Amazon reserves the right to change a customer's ebooks without notice, will not allow lending of ebooks to friends, can delete ebooks even if a person has paid for them and gives customers no right of appeal if it decides to disconnect them for violation of their terms and conditions (Doctorow 2007).

Nevertheless In a round table discussion of the prospects for ebooks at the end of 2007, senior management figures in HarperCollins, Random House, Macmillan Publishers, GarTners and the Book Depository appear to want ebooks to succeed and to regard them as having a key role to play in helping to reach younger audiences (Bury, Davies & Barnicoat 2007). The tone of this discussion contrasts with a comment recorded by Thompson (2005) in an interview with one manager involved in the early and failed attempts to launch ebooks ("I put a lot of effort into ensuring I had 3 romance titles ready as ebooks because I thought that's what Microsoft wanted, but now I'm not so sure") which suggests that publishers felt driven by larger players in the I.T. sector rather than being able to shape the ebook revolution themselves. The discussion featured two new phrases, 'The iPod moment for ebooks' and 'the tipping point' which began to feature in other literature on the subject.

2008 saw an increase in the number of books available on ebooks devices with Kindle taking the lead providing access to 125,000 books; Jeff Bezos, CEO of Amazon, also released a statistic to the effect that where Amazon had access to both the ebook and print book, one in twenty bought the ebook (Richards 2008). On the other hand one commentator, Dan Penny of Electronic Publishing Services, argued that none of the ebooks devices would stand the test of time and that it was the iPhone that would prove the ebooks reading device of choice (Penny 2008, pp.39-47).

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2008 also momentarily held out the possibility that DRM might even be abandoned on digital downloads, thus finally resolving a longstanding grievance of the visually impaired community (see section 2.2.1). The roundtable discussion referred to earlier revealed that publishers were aware that DRM caused as many difficulties as it solved (Bury, Davies & Barnicoat 2007). Later Random House and Penguin announced plans to abandon DRM and HarperCollins announced that they were considering the matter (Stone 2008), however there is nothing in the literature to suggest that this became official policy. Even so the keynote speech to the 2010 Independent Publishers Guild's conference did re-open the issue of DRM and raise the slight possibility that it might be removed (Neilan 2010a).

It was the summer of 2009 that saw the first development in the UK publishing industry that really laid the groundwork for a breakthrough in accessibility. Sony announced that from the end of 2009 it would only sell books in the ePub format (Allen 2009). In the report produced for the RNIB mentioned above Holt (2009, pp.9-10) stated that this had enabled ePub, the format with the greatest inherent accessibility, to gain an ascendancy over rival formats in the UK.

Since then the literature has had two dominant themes, the growing competition between the various devices and the difficulties surrounding business models and the pricing of ebooks.

Tivnan (2009a) wrote an in-depth feature for *The Bookseller* in which he repeated Penny's (2008, pp.39-47) argument that the iPhone will emerge as the device of choice for consumers of ebooks. He saw the success of the iPhone application for the book *The death of Bunny Munro* as in some sense indicative of the future; he based his argument on the fact that far more people own iPhones than ebooks reading devices and that major publishers are writing applications for books. Sony admitted it had fallen behind in the ebooks device race, but planned to use strategic partnerships with the *Wall Street Journal,* the *Dow Jones's MarketWatch* and the *New York Post* to generate enough income to allow it to catch up.

In the meantime the Kindle appears to go from strength to strength, at least in the US (it is too early to comment on its success or otherwise in the UK). In an

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interview for the *New York Times* on 6th December 2009, Amazon CEO, Jeff Bezos, stated that the number of people choosing an ebook over a print version had risen from one in twenty to almost one in two (Malik 2009). Of course these figures have to be treated with a certain caution, as they do emerge in the midst of a battle with the latest ebook reading device to emerge, Apple's iPad.

When Apple released the iPad it sold 300,000 on the first day and 250,000 iBooks were downloaded (Neilan 2010b). Its e-reading features have been well-received (Neilan 2010c). The iPad has even forced Amazon to review its pricing strategy and to accept what has come to be called the agency pricing model, a system in which publishers are allowed to set the prices at which they sell ebooks (Neilan & Page 2010); this might have been taken to be the final piece of the puzzle for a thriving ebooks market, (UK publishers were very enthusiastic), but *The Bookseller* has continued to carry articles which feature publisher discontent with the agency price model.

Although the literature is finally offering evidence that a critical moment might have arrived when ebooks might finally take hold, (it at least contains figures which if true would mean that there is real money to be made from ebooks in trade publishing, and for once publishers, retailers and ebooks manufacturers are benefiting financially), a note of caution needs to be struck; too many ebooks reading devices entering the market cannot be a good thing for accessibility, and the literature has reflected a tendency amongst some publishers to hold back the release of an ebook to protect the sales of print editions (Dan Brown's latest novel, was according to Jones [(2009)] the first book to be released simultaneously in print and as an electronic version).

2.3.3 Ebooks in public libraries

Garrod & Weller (2005) published what they termed an issues paper on ebooks in public libraries. They listed four advantages of ebooks: the simplification of stock management, their potential to speed up interlibrary loans, possibilities associated with reader development and distance learning, and finally that they might offer a means of targeting particular reading groups such as younger readers or the

housebound. However they listed six disadvantages: the lack of suitable content, the lack of current editions, only one user being granted access at a time, the reading experience, the impact of file size on the speed of downloads, and, importantly for this research, the fact that DRM systems applied to ebooks exclude users of assistive technology. Garrod & Weller (2005) called for research into user experience and for more fact finding.

One study into user experiences had been published a year earlier. Dearnley, McKnight & Morris (2004, pp.175-182) reported the results of an experiment they had carried out in which volunteers were asked to read books on PDAs and then rate their experiences by filling in a questionnaire. The findings of the study were not very positive, with problems being recorded with the functionality of the PDAs being used and the reading experience (so backing up Garrod & Weller's [(2005)] point), and readers expressing strong emotional attachments to print books; they concluded that ebooks would only be of interest to library users for whom the technology was as much a point of interest as the book. Three years later a report was published on an almost identical experiment, this time using a crime fiction and contemporary art reading group based in two Glasgow libraries; the volunteers comments were very similar to those reported by Dearnley, McKnight & Morris (2004), but the report drew slightly different conclusions, calling for experiments to be carried out using online reading groups rather than persisting with PDAs (Landoni & Hanlon 2007, pp.599-612).

Interestingly, a year later McKnight, Dearnley & Morris (2008) reported the results of a questionnaire survey hosted online at Essex Library which had been filled in by readers using NetLibrary's ebooks platform. The article notes the continued lack of promotional activities on the part of some librarians, but the comments of the respondents to the questionnaires themselves were more positive, with only one strongly emotional comment against ebooks being recorded (McKnight, Dearnley & Morris 2008, pp.31-43).

Of late the tone has been even more hopeful. An article in the Daily Telegraph reported that librarians were beginning to see ebooks as a way of increasing library membership and re-establishing the perceived relevance and value of libraries based

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on the relative success enjoyed by Essex and Luton Library's ebooks offering
(Wallop & Bell 2009).

2.3.4 Ebooks, accessibility and DAISY

The formally published literature on the accessibility aspect of ebooks is relatively
scant and merely notes their relative inaccessibility. The most substantial
publication on the matter is an internal working report on ebooks, e-readers and
accessibility issues produced by the RNIB's Centre for Accessible Information in
October 2008. The report noted potential barriers such as fiddly buttons, unintuitive
menu structures and the technical challenge of transferring books on to devices
(Cryer 2008, pp.2-3) but also noted some positives, specifically screen contrast (the
Iliad 2nd edition, the Bookeen Cybook and the Jetbook receive positive comments),
the ability to change page presentation (the six font sizes on the Kindle is noted) and
the potential of text-to-speech (Cryer 2008, pp.5-8)[3]. The report is thorough and
useful in that it outlines what the key accessibility issues are, but ebooks technology
moves so fast that any report like this is quickly out of date.

More up-to-date are two which appeared in the NFB's Braille Monitor and the
RNIB's monthly magazine Access IT. The first covered the accessibility of the
iPhone; it is an effectively densely written manual on how to use the iPhone
(Olivero 2009), and its involved style suggest that the iPhone as a potential ebooks
reading device will pose real challenges (it does not actually deal with the
accessibility or otherwise of the Kindle application or of applications for individual
books). More promising is a tiny review of the Apple iPad, which painted a rather
rosy picture of the potential contribution to accessibility it offers (it was written by a
self-confessed Apple enthusiast); the article highlighted the fact that the iPad comes
with a keyboard (Useful for blind people and preferable to touch screen), that the
text-to-speech functionality provided by the in-built screen reader VoiceOver is
easier to listen to than screen readers like Jaws, and that the larger screen and the
ability to zoom in better on parts of a text will help partially sighted people
(Buchannan 2010, pp.18-23). Again the article did not deal with the accessibility of
iBooks.

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Though Google might appear to offer an ideal solution bypassing the need for legislation or developments in the market which might be slow, it cannot be regarded as a solution while copyright lawsuits are ongoing. Since the terms of the book settlement means that only books published on or before 5 January 2009 will be made available via the Book scan project (Neilan 2009b) its contribution to access to books produced by the trade publishing may soon become dated, and in the higher education sector commentators like Jacsó (2008) have reported large gaps in its content, unreliable search results and users not being pointed to the appropriate copy of a work. Another point is that librarians sometimes see Google Scholar as a threat to their role (Taylor 2007, pp.4-6). This will be important if librarians remain active in promoting access to scholarly material for the visually impaired and trying to safeguard access to websites featuring scholarly texts.

Finally DAISY has appeared rarely in the literature, though it is slowly gaining publicity. In the books world the literature suggests it has yet to gain real credence in the mainstream; Eberenz (2009) presented a paper to the DAISY conference outlining a project in Germany in which a dedicated audiobook publisher, Argon, released 100 titles for sale in mainstream bookshops. A year later 10,000 titles had been sold and the project would be continued, though the format suffered from the perception that it was a niche activity for the blind (Eberenz 2009). DAISY appears to be making much more progress with scientific journals produced in the US; the development of technology allowing graphical data to be rendered on a screen in an accessible manner has raised the possibility that the American Physical Society might start publishing journals in DAISY (Gardner, Bulatov & Kelly 2009, pp.314-319).

2.4 Securing access to publishing-related websites

Access to ebooks is meaningless if the websites on which they are made available are not kept accessible and usable by visually impaired people. Inaccessible books on accessible websites, or accessible books on inaccessible websites will not help the visually impaired.

A lot of the literature on promoting and safeguarding access to the Web does not
cover websites relevant to publishing, but some background material would help
illustrate the mind set of the various parties involved in promoting access in this
area, and various legal developments need to be noted.

2.4.1 Background and Legal situation

As noted in the introduction, two disability activists in the US, Gerald Goggin
and Chris Newell (2003, unpaginated), claim that the difficulties that people with a
visual impairment experience with the Web have their roots in the early 1990s when
the Internet was first being discussed and built as an information superhighway.
They analysed the social make-up of the various policy making committees and
noted that disabled people were not represented on them, or hardly ever; they also
analysed policy statements by governments and quoted passages which they
claimed show governments reducing to an absolute minimum their responsibility to
intervene and shape the Internet, even to further social inclusion. They argued that it
is a result of this policy and a relative lack of interest in accessibility in major I.T.
corporations (they pointed out that for a long time only one person was working on
accessibility in Microsoft) that technology designed to help the visually impaired
access the Web has always lagged behind mainstream technology. They make a
powerful case, and apart from pointing out that they underestimate the extent to
which it is in the nature of information technology that changes leave those with
special needs behind initially, it is hard to argue with much of what they say.

Attempts to tackle the problem really began with the launch of the Worldwide Web
Accessibility Initiative and the drawing up of the Web content accessibility
guidelines (Web Content Accessibility Guidelines Working Group 1999). These
gained credibility as a result of being tested in the courts in the case of Maguire v.
the Sydney Organising Committee for the Olympic Games in 2000, where a blind
individual used the guidelines to demonstrate that the committee's website was
inaccessible (Human Rights and Equal Opportunities Commission 2000).

Activists in the American National Federation of the Blind have developed a
tendency, one might even suspect a fondness, for resorting to the courts to further

web accessibility, as this extract from a conversation between the Federation's president, Dr. Mark Maurer, and its lawyer, Daniel Goldstein, demonstrates:

"What you need to do is go sue some of these folks with inaccessible technology, and, if they're big companies and if you're noisy about it, then other folks will sit up and take notice, and soon enough they'll start making things accessible on their own, and you can close your office and go fishing."

"Why don't we start off small until we get the hang of it?" I said.

There was a pause, and then Dr. Maurer said, "Good idea. Go sue America Online, and get them to make AOL accessible."

"That's small?" I said.

"Well I was going to say Microsoft, but you asked me to start off small." (Goldstein 2007).

In the United States the hand of the disabled community was greatly strengthened by the passing of Section 508 of the Americans with Disabilities Rehabilitation Act; this piece of legislation requires anyone tendering for a technology contract with a federal government institution (and so with many universities) to comply with accessibility guidelines modelled on those drawn up by the Worldwide Web Consortium Working Group and is an attempt to make accessibility commercially attractive (Goggin & Newell 2003, unpaginated). The updated Disability Discrimination Act contains a similar provision (see above), though without clauses which would allow a service provider to challenge a government purchasing decision if they thought their service was more accessible.

Before moving on to look at the literature dealing with publishing-related websites it is important to note a more sceptical view of relying on the WAI guidelines that has emerged amongst some UK academics based at UKOLN and at the Centre for Disability Studies at York University.

Journal articles by academics based at UKOLN claim to show that adherence to accessibility guidelines does not guarantee that a visually impaired person can actually use the site, and also that visually impaired people have actually liked sites that break even the most basic of the WAI guidelines (e.g. Kelly *et al*. 2007). They criticised the WAI guidelines for favouring rarer but accessible technologies (.PNG) over popular technologies which were inaccessible but not importantly inaccessible (.GIF). They reiterated an argument begun in a conference paper they published in 2005 in which they questioned whether WAI standards should continue to be the main engine driving accessibility in the educational sector, and called for much more effort to be put into usability testing and into what they called a contextual approach to accessibility. Examples they gave in their 2005 paper are making allowance for the fact that reproducing various scientific diagrams and maths formulae on a computer screen may not be easy or even beneficial, and that the clarity of 'alt' text demanded by the WAI guidelines often clashes with the need to create an ambiguous effect in various arts courses (Kelly *et al*. 2005).

A series of Masters and PhD theses from students based in the Centre for Disability Studies at York University also claim to indicate that the WAI guidelines are flawed. They based this claim on exercises in which they first asked visually impaired people to rate the seriousness of certain breaches of accessibility guidelines, and then compared the seriousness with which the Web Content Accessibility Guidelines Working Group (1999) rated them; they found there was no correlation between the two sets of ratings (e.g. Kheir 2006).

Usability testing is always to be encouraged, and Kelly *et al*. (2005, 2007) are not the only ones to conclude that certain problems may not have a technical solution (e.g. Martinengo 2008), but there are potential objections to their approach which Kelly *et al.* do not address. Standards have been critical to the success of court actions brought under disability discrimination because they give courts something reasonably objective by which to assess claims. Usability testing could throw up completely contradictory results about a web-based resource leaving librarians no wiser as to whether they should subscribe to it or not, and there is always the danger this confusion could give publishers and web developers an excuse for saying they cannot provide accessibility because they do not know exactly what constitutes

accessibility. They seem to underestimate how hard it has been to gain the progress made in accessibility so far, and the wisdom of formulating policy by reference to circumstances which will be the exception rather than the norm has to be questioned.

2.4.2 The accessibility of ebooks platforms in academia

Much of the literature on this has been written by American university librarians. This may be because most ebooks platforms originated in the US and because legislation required that they informed themselves and each other about the relative accessibility of each platform.

The early literature on the accessibility of academic websites did not focus so much on ebooks platforms and was more concerned with access to databases of online journals and to university library websites. Byerley & Chambers (2002) compared visually impaired users responses to Proquest's Periodical Abstracts and Gail Group's Expanded Academic Index ASAP with those of sighted students, and in the UK Craven & Brophy (2003) carried out a similar exercise, this time looking at access to Manchester Metropolitan University library's pages. Some of the findings of these studies are outdated because the screen readers being used have developed technically so much. This early literature is relevant in two ways. Firstly the research was timely because it spread the notion of librarians acting as advocates of the interests of the print-disabled at a time when scholarly journals were moving online; Unlike the situation back in the 1990's described by Goggin & Newell (2003), a combination of legislation and activism on the part of librarians meant that there was a chance that the interests of the visually impaired could be taken into account reasonably early on. Second it affirmed the importance of usability testing by visually impaired users when deciding how accessible a website was or was not.

The most up to date investigation into the effect Section 508 and the accessibility guidelines are having on ebooks aggregators is in an article by Byerley, Chambers & Thohira published in 2007. They sent a questionnaire to the major providers of ebooks platforms asking them to assess the extent to which they complied with WAI standards and Section 508 legislation. They found that almost all aggregators were aware of the WAI guidelines and claimed to design their products in

accordance with the standards or were starting to do so. Few, however, made sales personnel aware of accessibility issues and only four carried out any kind of user testing on their products. They also claimed that librarians did not always raise the question of whether their products were fully accessible, which disappointed the authors of the article; they asked if librarians do not raise accessibility issues with publishers, why should aggregators consider them important? It is also worth noting that Connaway & Wicht (2007) reported that some find ebook platforms unpredictable and awkward to use even in the sighted population, which suggests they might be even more difficult for a visually impaired user.

UK academics do not seem to have carried out surveys into aggregators' attitudes to accessibility. However, in 2009 an academic at Robert Gordon University, Dr Laura Muir, in conjunction with two other researchers, Thomas Veale and Anne Nichol, did publish an article which documented students' experiences of using ebooks on platforms like NetLibrary and the like. The article is interesting because instead of focusing purely on the way users interact with an ebook, it sought to put students' use of an ebook in the context of their need to access it, in other words it asked the question how easy were the ebooks on platforms like NetLibrary and the like to use for the purposes of completing a course? It seems not that easy (problems of lack of signposting how far users were through a book, using the annotations facilities or the lack of such facilities and other difficulties were highlighted). The article is of relevance to this research because the case study it described featured a blind student, though his/her experiences were not recorded in depth, and there was only a brief note that the student was not able to access the book of their choice (Muir, Veale & Nichol 2009, pp.90-109). These findings reinforce those of Connaway & Wicht (2007) mentioned at the end of the previous paragraph.

2.4.3 The accessibility of online bookshops and Overdrive platforms

The literature on the accessibility of non-academic websites seems to have little to say regarding publishing-related sites. *The Braille Monitor*, the journal of the American National Federation of the Blind, does carry an article which is a round-up of the Federation's 2008 convention and which briefly mentions work with Amazon to make its website accessible. The article is of interest because it carries a

remark from an Amazon senior manager, Mr Craig Woods, that the size and de-centralised nature of Amazon makes guaranteeing accessibility a challenge (Frye & Pierce 2008). There does not seem to be any significant survey of the accessibility of the platforms built by Overdrive for either US or UK public libraries.

It is not possible to tell whether the UK literature on web accessibility covers publishing related sites or not. The largest study into the accessibility of commercial websites was that carried out on behalf of the Disability Rights Commission by the Centre for Computer Human Interaction and Design at City University. The Commission published a report on the study in 2004. Unfortunately the report did not list the websites which were tested, nor the 10% of the sample which was selected for more detailed evaluation, but the key finding was that, whether accessibility was measured by user feedback or by testing for breaches of the WAI accessibility guidelines with automated tools, 81% of websites failed to provide even the most basic level of accessibility (Disability Rights Commission 2004).

2.5 Conclusions

Certain conclusions can be drawn from this survey of the relevant literature. That there really is a problem with access to books and websites is beyond doubt, even if the literature covering problems relating to the accessibility of websites, at least in academia, is more up to date. The disabled feel the lack of access they experience strongly; one is forced to the conclusion that some visually impaired individuals must feel some real antagonism towards the publishing industry and website developers.

The literature on legal reform is, perhaps inevitably, partisan in spirit. The interplay between approaches based on anti-discrimination legislation and approaches based on copyright reform is particularly interesting, as is the way in which the legal concerns of the visually impaired community in the UK overlap with and potentially diverge from those of the international visually impaired community. The literature on ebooks supports the view that ebooks have become a permanent part of the publishing landscape, though it is striking that UK industry journals such as *the*

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Bookseller contain hardly any references to the interests of the visually impaired (again the contrast with the situation in the US can't be ignored).

The literature is not short of ideas on the sort of things that should be happening, but questions remain. By its very nature campaign literature, and most of the literature produced by advocacy groups falls into that category, only provides a snapshot of ideas in fashion at the time that it was written. Similarly newsletters of the sort produced by the Accessibility Action Group can not be expected to drill down to any depth into the question of how to systematise accessibility on a large scale. Similarly the literature on DAISY is too scant to allow any conclusions to be drawn on where DAISY might ultimately fit in to the accessibility landscape.

In short the literature strongly suggests that while there is a lot of activity going on in the field of access to books and to websites, the different parties involved may have different ideas about what constitute viable and realistic solutions and therefore what should be the way forward; consequently activity in this area could not be described as systematic in a meaningful way. There is certainly room for further research in this area and it is the search for a more systematic approach and questions left partially or entirely unanswered by the literature that have shaped the research described below, the aims and objectives of which are outlined in the next chapter.

Endnotes

[1]. Kinnell, M., Y, L. & Creaser, C., 2000. Public library service provision for visually impaired people. E-mailed to Guy Whitehouse by Mary Ashworth, 30 March 2010.

[2]. Holt, S., 2009. What is the current state of the UK ebook market, and how accessible are ebooks currently to print-impaired people?, e-mailed to Guy Whitehouse by Helen Gunesekera, publishing strategy officer at the RNIB, 12 September 2009.

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[3]. Cryer, H., 2008. Review of ebook players, formats and service providers, e-mailed by Sarah Home, Accessible Information Development Officer at the Royal National Institute of Blind People, 20 November 2008.

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Chapter 3 Aims and objectives

This research has two aims:-

> To examine how to make access to copyrighted books for the visually
> impaired as equal and systematic as possible and

> To assess how best to secure access for the visually impaired to online
> bookshops and to ebooks platforms in academia.

In the context of this research making access systematic and secure essentially
means looking at what it would mean for the various parts of the system to function
optimally and examining whether it is possible to ensure that the need for the kind
of campaigning and activity outlined above could be avoided in the future.

These aims are best divided into five objectives:

- To investigate the level of access to books and to publishing-related
  websites achieved so far, and to assess the impact on those having to provide
  or lobby for access;
- To assess the current state of the relationship between industry and the
  visually impaired community, and whether these help or hinder access to
  books and websites;
- To consider whether legal reform is needed to secure access to books and
  websites;
- To consider whether ebook devices and/or ebooks themselves have any
  potential to offer the visually impaired simultaneous access to books of their
  choice;
- To determine whether DAISY helps or hinders the production of accessible
  books.

Specific questions relating to each of these objectives and only partially answered or
not answered at all by the literature review are as follows:-

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- The accessibility landscape: It is perhaps surprising that the figure representing the level of accessibility produced by Loughborough in 2004 is the same figure quoted by Sullivan's (2007) study. Has the level of accessibility not increased? What contribution to accessibility is being made by the third sector and industry, and what is the extent of self-help activity amongst visually impaired people on the Internet? Are librarians in public libraries taking advantage of the exceptions in the Copyright (Visually Impaired Persons) Act to provide access to books for visually impaired members? Also what is the current level of access to books in higher education? How well trained and resourced are learning support staff who make the curriculum available to visually impaired students? Finally on the issue of web accessibility, how accessible are the websites of retailers of ebooks and of ebooks platforms built by aggregators targeting the academic and public library sector?

- Stakeholder relations: Can the Accessibility Action Group address the lack of a system? How dynamic is the group and what impact can it have? Do publishers have any formal policies on accessibility, and do retailers of ebooks have policies designed to ensure the accessibility of their websites? Similar questions arise over stakeholder relations in higher education. What exactly is JISC TechDis doing to further access, and what are publishers doing to address accessibility? How effective is the lookup service mentioned above? Is progress being made on the accessibility of ebooks platforms?

- Legal reform: It is clear from the literature that the industry and visually impaired advocacy groups in the US have fundamentally opposing views on this, but how are these controversies viewed in the UK? For example do other university librarians and learning support staff share Joints (2007) opinion that publishers should be made more responsible for accessibility? How effective has the NIMAS initiative in the US been, and what lessons can be drawn from it? Is further reform to copyright needed, or is there a danger that enhanced exceptions will undermine efforts to make the industry develop its own solutions to accessibility? What actually is the law on

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website accessibility in the UK and does it need strengthening? Finally might anti-discrimination legislation have a role to play in promoting access?

- Ebooks: The literature does not answer, or even address, where visually impaired people's best interests lie in the whole area of ebooks, nor is there any really definitive answer as to what publishers will do on ebooks, for example the vexed issue of releasing an ebook alongside the print edition. What are the attitudes of UK publishers to ebooks, and is public libraries' interest in ebooks increasing? Would it be better to build accessibility into existing media players and assistive technology used by the visually impaired, or does one of the ebook reading devices on the market hold the key to simultaneous access?

- DAISY: Although the literature suggests that DAISY might have a future in the journals world, its relevance to furthering access to books remains in doubt. Does DAISY have a future in the book world outside of organisations like the RNIB's talking books service?

The research methods used to look into these matters is described in the next chapter.

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Chapter 4 Research methods

4.1 Relevant research traditions

The research questions listed at the end of the previous chapter can only be answered by gathering quantitative and qualitative data. While assessing the accessibility landscape in terms of the numbers of books the visually impaired gain access to in the absence of a fully accessible edition produced by the industry can be investigated by quantitative methods, assessing stakeholder relations involves dealing with more complex realities such as how publishers are developing policies on accessibility and therefore takes enquiries into the area of qualitative research, though since it is relevant how many publishers are developing such policies, quantitative data cannot be ignored here either. Ideas on what the law should be and whether it should be changed should be guided by quantitative data but cannot always be reduced to numbers; they will inevitably be shaped by people's past experiences, their underlying attitudes and a sense of what ought to be the case. Again while looking into the potential contribution of ebooks to accessibility requires some quantitative research (for example asking for details of the numbers of ebooks publishers will be producing), it also involves seeking users' reactions to and experiences of using ebooks technology which will have an irreducibly subjective element. This research project therefore needs to be an example of what Cresswell (2003, p.3) called a mixed method design.

The mixed methods approach to research is closely linked to a philosophical outlook called pragmatism which believes that the research problem is more important than notions of absolute methodological purity. In other words researchers must be free to use whatever methods they feel they need to and can therefore legitimately draw from approaches and procedures used in quantitative and qualitative research (Cresswell 2003, pp.15-17). There have been further developments in the philosophy underpinning mixed methods approaches; for example Robson (2002, p.42) recommended an approach called critical realism which makes greater efforts to meet one of the standard charges levelled at qualitative research - the lack of objectivity. Both philosophies apply the test that if successful research can be carried out using mixed methods, then the approach is

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legitimate and Tashakkori & Teddlie (1998, pp.137-170) listed studies which they claim have successfully used mixed methods approaches. Although Robson (2002, p.42) cautioned that hostility to qualitative research means that some regard mixed methods research as dubious, Cresswell (2003, p.3) felt able to say that mixed methods research had "come of age"; it even seems to be gaining in popularity in medical circles where more traditional approaches based on the positivist philosophy and on quantitative data have been more dominant (e.g. Curry, Nembhard & Bradley 2009).

Mixed methods approaches have a long pedigree and high standing in the field of disability research; Professor Colin Barnes (2001) of Leeds University, a leading activist in the disability field, pointed out that research based on a mixed method approach was fundamental in bringing about the Disability Discrimination Act. It therefore seems appropriate to the issues being considered in this research project; one could quite reasonably argue that if a research method/philosophy underpins something as significant as the Disability Discrimination Act, that methodology gains a sort of *de facto* credibility, at least to those working in a pragmatic philosophical tradition.

Disability research, or to give it its full title emancipatory disability research (Barnes 2001), is an example of what Cresswell (2003, p.16) termed advocacy research. Emancipatory disability research started to gain momentum in the UK in the 1980s, when Michael Oliver (1983, 1990) called for an entirely new way of thinking about and resolving disability issues. Oliver (1983) described two approaches to disability issues, the medical model which regards any problem as arising from the disability itself and which favours specialist provision as a solution, and the social model of disability which regards a problem as arising not from the disability but from the barriers that society put in the way of the disabled. To apply this to the topic of this research project, the medical model approach, if taken to its extreme, would see the lack of access to books and the web as resulting from the disability and look for a specialist solution; the extreme social model approach would say that it is entirely the fault of the way the publishing industry and the

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Internet has evolved and that the industry should make all the necessary adjustments needed to provide full access.

The medical model runs the risk of perpetuating the problems that already exist and which have led to the beginning of this research project; the social model runs the risk of asking for the unachievable, however it should be stated here that the social model approach to disability issues has become so ingrained amongst disability researchers that a research project which ignores it altogether runs the risk of being entirely rejected by the disabled community. Certainly research which aims to increase access to book and book-related websites must to some extent be guided by the emancipatory disability research paradigm.

Emancipatory disability research is not tied to any particular methodological approach or to particular procedures of data collection, but prefers to lay down six guiding principles which have to be followed for any research project into disability issues to be regarded as valid. This emphasis on following certain research principles as opposed to tying a researcher into a rigid methodology is particularly useful for a project taking part in the context of ongoing political and technological developments, because it leaves the researcher free to investigate unforeseen developments relevant to the topic under investigation. The principles laid down by the founders of emancipatory disability research are:

- accountability to the disabled community;
- that research should unambiguously aim to produce outcomes of benefit to the disabled community;
- recognition of the value of qualitative research;
- a focusing on the experiences of the disabled in any analysis of the problem being researched;
- a commitment to the social model of disability, and,
- that objectivity, while desirable, is always going to be problematic and that all judgements are value-laden (Barnes 2001).

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As long as researchers adhere to these principles, they are free to follow any method of data collection they like (Barnes 2001), apart from grounded theory which precludes even the formulation of a predetermined research problem (Grounded Theory Institute, n.d.).

The insistence on including disabled people's experiences in research and the value that emancipatory disability research puts on qualitative data means that it is compatible with phenomenology, but it was judged that this particular approach would be unsuitable for the research questions being addressed. Phenomenology is very much concerned with questions revolving around the fundamentals of consciousness, reality and the ways in which we attach meanings to things (Centre for Advanced Research in Phenomenology and Philosophy, n.d.). As such, even while claiming to address fundamental realities, it can feel very abstracted and rather removed from the realities of economics and systems. For example, it is not easy to see how phenomenology could address the potential contribution to access of ebooks, or the potential relevance or irrelevance of DAISY. If the research question being addressed was what visually impaired felt about their relative lack of access to books and to the web then it would be a different matter, but even then there would be a danger in using a phenomenological approach because, as Barnes (2001) correctly pointed out, focusing on people's experiences runs the risk of downplaying the importance of systemic barriers faced by the disabled. This would be a very particular problem for a research project which aimed to find ways of putting access to books of choice and to online bookshops and libraries on a more systematic footing.

Rather it seemed better to use what have become the more standard forms of enquiry in qualitative and pragmatic research, namely interviews, surveys and some observation work. The principles outlined by Barnes (2001) have been followed, but two important points need to be made.

The first has to do with adherence to the social model of disability. In the introduction and literature review it became apparent that the advocacy groups involved in the Right to Read campaign are not using this language but are

appealing to more mainstream notions of human rights. This might seem to be a minor point, one more of language than procedure, and it is hardly as if appealing to notions of human rights amounts to a dismissal of the social model of disability, but human rights can be linked to responsibilities and it can therefore offer a way of treating the debate over solutions in a more balanced manner; the interests of both sides of a debate can be taken into account while the concerns of those who can show they have a genuine grievance can be taken seriously. Also notions of human rights can be linked more naturally to legal concepts than rather abstract notions of the social model of disability, and so is an appropriate philosophical framework for a research project looking into the possibilities of legal reform.

The second point is connected to the first and has to do with objectivity. As stated earlier, Barnes (2001) acknowledged that objectivity in disability research is always going to be a problem, and he went on to deploy the standard defence used to vindicate potentially biased research, namely that all judgements are value laden and that it is sufficient for researchers to be entirely transparent about how they collected and analysed their data. But does this defence hold? The results of advocacy research can be undermined by the lack of an objective mindset on the part of a researcher, even when apparently objective data collection methods are used. This is particularly the case when, as in this research project, the researcher is directly affected by the problem being investigated. To give a concrete example of how this research could be impacted by this problem: it is entirely possible that while adopting a methodology which gives publishers the opportunity to defend DRM and which investigates alternatives to a copyright exception allowing the circumvention of DRM, the researcher remains entirely dogmatic on the matter and sets up counter-arguments only in order to demolish them.

Considerations such as these have led the researcher to try and adopt a strategic approach which exists somewhere on the spectrum between classical advocacy research mentioned above and what Creswell (2003, p.5) described as social constructivist research in which the researcher tries, as far as humanly possible, to put aside their preconceptions and allow themselves to be challenged by what they find. Both sides of any dispute have been invited to give their own views and

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opinions, with greater credence being given to those who can offer the most evidence to support their position. Thus the project is an example of conviction/advocacy research in the sense that it proceeds from the opinion that the questions outlined at the end of the previous chapter need answering, and that the current way of doing things is not the ideal, but just as it has borrowed from the insights of the pragmatic school of research by mixing quantitative and qualitative methods, it seeks to identify pragmatic steps which will put access on a more systematic footing, adapting as far as possible an open mind as to what those steps might be.

4.2 Literature search and monitoring of websites

Books: Three books have been particularly useful in providing background material on various topics and putting the concerns of the visually impaired into some sort of context. Professor J.B. Thomson's (2005) book, *Books in the Digital Age.* Though perhaps a little dated now, this book contained valuable information on the challenges faced by the ebooks industry in its early days, and so by implication on the challenges firms might face today as they try to launch a successful ebooks programme. Tarleton Gillespie's (2007) book *Wired Shut* documented the rise of DRM in great detail, and although it made no reference to the problems that DRM causes assistive technology and mainly focuses on the music industry, it revealed much on the attitudes of key industry players. Finally Gerard Goggin and Christopher Newell's (2003) book *Digital Disability* provided some useful information on how the lack of access to the web which the visually impaired experience came about.

Academic journals: A number of journals were monitored throughout this research by means of current awareness and contents page alert services. Journals were selected on the basis of previous experience and on the advice of the relevant academic librarian, who based his decision on the results of keyword searches fed into relevant databases such as Emerald Insight and Proquest. Allowance had to be made for the fact that some of the journals have a somewhat US-centric perspective. Although each journal was searched for all themes relevant to this research, journals

listed below are grouped according to main potential area of relevance.

Access to the curriculum for the visually impaired: *British Journal of Special Education*, *Journal of Special Educational Needs*, *Journal of Learning Disabilities*, and *Onwards*.

Ebooks and access to the web: *Collection Building*, *Econtent*, *Electronic Library*, *Information Today*, *Information World Review*, *Interlending & Document Supply*, *Journal of Electronic Publishing*, *Journal of Librarianship and Information Science*, *Journal of Scholarly Publishing*, *Learned Publishing*, *Library High Tech*, *Library Trends*, *Online Information Review*, and *Publishing Research Quarterly*.

Legal aspects of publishing: Journals on LexisNexis Butterworths, *Journal of Intellectual Property Law and Practice* (Stanford).

Assistive technology: *Journal of Assistive Technology*.

Periodicals and newsletters: By far the most important source of information on ebooks in UK trade publishing is *The Bookseller*. *Wired Magazine* and *Publishers Weekly* also have many articles on ebooks, the latter also containing articles relating to accessibility. The RNIB's monthly magazine *Access IT* has featured articles on ebooks, developments in assistive technology and legal controversies surrounding accessibility, as has the DAISY Consortium's monthly newsletter *the DAISY Planet* and the monthly online magazine *E-Access Bulletin*.

Websites and blogs: The website www.readingrights.org contains informative material on the dispute over the Kindle 2's text-to-speech function. Some effort has been made to sift the proverbial wheat from the chaff when it comes to blogs. Preference has been given to blogs written by those currently involved in digital publishing, namely thedigitalist.net written by Pan Macmillan and the blog on the Booksellers Association's website, Brave New World.

Internal documents: One of the benefits of being in regular contact with members

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of the UK Right to Read Alliance is that it has given the researcher access to internal documents not placed fully in the public domain. These include memos detailing background discussions on the WBU's copyright treaty, an assessment of ebook readers and formats from an accessibility standpoint carried out by the RNIB during 2008 and a Masters thesis written in the summer of 2009 by Simon Holt at Oxford Brookes University on ebooks and accessibility.

4.3 Fieldwork and data analysis

Research has been wide-ranging and ambitious. The strategy has been to conduct semi-structured interviews at the start of investigating a particular topic, and then to use data from those interviews to guide further research into that topic. This might be taken to mean that the strategy has been a sequential one, but sequential strategies of the traditional sort do not lend themselves to projects which take place in the context of technological developments which could fundamentally change the topic being investigated. Rather the strategy followed is what Cresswell (2003, pp.215-216) calls a concurrent triangulation strategy. Qualitative and quantitative data from sources on both sides of the debate has been collected simultaneously and has been mixed throughout the interpretation stages. Robson (2002, p.374) recommends this approach in research projects which mix various and complementary research questions as does this project.

Semi-structured interviews were used because they provide a way of ensuring that interviews cover topics of interest to the interviewer and of allowing the interviewee to say what they feel the need to say. Thus key representatives of the publishing industry and of the visually impaired communities were allowed to express their opinions freely and completely.

However interviews only provide insight into the attitudes and beliefs of interested parties at a given moment, whereas this project has taken place in the context of an ongoing campaign and technological development. There has been a risk that data from interviews might become outdated, and so considerable effort was put into maintaining productive relationships with key parties on both sides of the debate. This has been achieved through attending key meetings, seminars and conferences

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(see appendix 4 for a complete list), and sometimes by means of informal telephone conversations and e-mail.

These efforts have proved largely successful and have been key in gaining the trust of relevant key players. This in turn has meant that a danger of a strategy based purely on interviews, namely that people merely reiterate positions previously stated in public, has been avoided; insight has been gained into areas where parties might compromise. Another key benefit of this informal contact and also of attending conferences has been that it enabled the researcher to gauge the mood of various parties. Stakeholder relations are as much a matter of mood as anything else, and this is particularly relevant when conferences are attended by ordinary visually impaired members of the public and not only paid professionals engaged in trying to find solutions.

However perhaps the most important benefit of attending conferences and informal contact with key parties was that it enabled the researcher to gain reactions to new developments in the field and also to ideas on solutions being developed by the researcher. This last point is important, as it has been another way of keeping any bias the researcher may have in check and of ensuring that ideas being developed are realistic.

For the sake of clarity research activities have been grouped under the headings of access to trade books, access to books in higher education and securing access to the web, although inevitably there is some overlap between these three areas.

4.3.1 Access to trade books

The accessibility landscape: Work on this can be divided into two areas, specifically investigations into the activities of third sector organisations like the RNIB and public libraries and self-help groups formed by visually impaired people themselves on the one hand, and an assessment of the level of accessibility provided by the publishing industry on the other.

Investigations into third sector activity have largely taken the form of desk-based

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research. At the request of the WBU the researcher undertook a survey of organisations producing accessible literature in 18 countries. Respondents to the survey were asked to give details of the numbers of books they had made accessible in 2006, 2007 and 2008, how many books were published in their country during 2008, and how much of their work was done under copyright exceptions, licensing and from material in the public domain. This led to quantitative data being obtained from the major third sector producers of accessible literature in the UK, namely the RNIB, Calibre Audio Library, Listening Books and two internet-based libraries, the Seeing Ear and Bookshare.org.

Questions on public libraries' contributions to accessibility raised at the end of the previous chapter centred on the extent to which public libraries might adopt an innovative approach to providing services to visually impaired members by, for example, taking on some of the transcription work currently done by charitable organisations. Research on this topic began with a telephone interview with Helen Brazier of Share the Vision, the organisation mentioned in chapter 1 which has been involved with promoting accessibility in public libraries over many years and which has been helping to run a project exploring the notion of a core library offer to visually impaired people. The interview was conducted by telephone on 9 December 2009. The interview discussed the project exploring a core offer and the notion of libraries taking advantage of the exceptions in the Copyright (Visually Impaired Persons) Act.

Next public librarians were contacted in an attempt to try and gauge activity in this area. Since work done on this topic was carried out relatively late in the project, time was a key factor in deciding how to go about this. A questionnaire based approach such as the one adopted with university librarians was deemed impractical. Furthermore monitoring Share the Vision's bulletins had led the researcher to suspect that activity in this area would be slight. Nevertheless allowance had to be made that more might be happening than Share the Vision knew about. These considerations led to the conclusion that a snapshot e-mail survey was the best way forward and a request for information on activities in this area was sent out over the user group lis-pub-libs which contained over 900

members. Information gained from this survey led to the final (an important) piece of fieldwork in this area, a telephone interview with a Hilary Higgins on 2 March 2010 who had set up a company called Frontier Books in an attempt to persuade public libraries to make synthetic audiobooks available to members. Notes were made on these interviews and responses to the e-mail survey of public librarians, and the data was subject to comparative analysis.

Information on legally dubious self-help activities was provided by a friend who had told the researcher before the start of this project of his involvement in a secret Internet-based library which allowed the sharing of books by visually impaired people in different countries. Another active member of this secret library provided the researcher with information on the number of books available to group members.

Research into the level of accessibility currently provided by trade publishers consisted partly of contact with specialist audiobooks publishers, attempts to contact the audiobook divisions of large UK publishing companies and investigations into mainstream trade publishers' activities on accessibility in general (this last aspect is discussed again below under the headings of stakeholder relations and ebooks, because interviews and e-mail contact with mainstream publishers sought to cover all relevant topics in one go).

It was judged that trade and audiobooks publishers would not respond to a questionnaire; books on questionnaires warned that business managers were feeling over-surveyed and that response rates were dropping (Frazer & Lawley 2000, p.73). An attempt to get publishers together for a focus group seemed certain to fail, and even if it succeeded, it was judged that such a focus group would generate no data that would not emerge from monitoring relevant literature. Consequently requesting interviews seemed the best way forward and also the best way to enable publishers to give their opinions on the audiobooks market and on the challenges of producing formats other than print.

Specialist audiobook producers were selected partly on the basis of their

membership of the now defunct Audiobooks Publishing Association and partly on information gleaned from an in-depth feature on audiobooks in *the Bookseller* by Tivnan (2009a) which listed the audiobooks producers and audiobooks divisions of non-specialist publishing companies who had the largest market share. Companies selected on this basis were BBC Audiobooks, Penguin, Random House, Pan Macmillan and W.F. Howes. Summersdale, an audiobooks and ebooks publisher featured at the 2008 Audio Revolution conference for having had a best-seller, was added to the sample, and a telephone interview was conducted with Ben Ottridge who headed up their ebooks program, was conducted on 30 January 2009. Figures on the growth of the audio download market were gained by monitoring Audible.com's website and an attempt was also made to contact GoSpoken on this topic, though without success. The researcher managed to contact Rebecca Fenton, formally of CSA Word via her blog, and she gave some insight into the trend towards making audiobooks available mainly via download.

Stakeholder relations: In order to gain an overview of what was happening on access to trade books as a whole, the researcher first conducted a semi-structured interview with Dr Alicia Wise who headed up the Accessibility Action Group at the time on 10 March 2009 in London. The interview covered the group's work as a whole, what publishers were doing on accessibility, the potential of ebooks to increase access and her views on the WBU's copyright campaign. Then a semi-structured interview was conducted by telephone on 30th March 2009 with Richard Orme, head of accessibility at the RNIB. This covered the same topics, but also went on to look at developments in the assistive technology area. Both these interviews were transcribed verbatim and subjected to comparative analysis. Graham Taylor, then head of the Publishers Association, directed the researcher to guidelines on accessibility for publishers drawn up by the association.

A concerted attempt was made to ascertain whether publishers had formal policies on accessibility and fielding/meeting requests for accessible copies of specific titles by visually impaired individuals. A mixture of purposive and randomised sampling was used. Purposive sampling was used in contacting the four large trade publishing houses, namely Hachette, HarperCollins, Penguin and Random House (obviously

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any investigation of this topic would have to include these publishers), as well as some medium-sized publishers, specifically Pan Macmillan, Faber & Faber, Bloomsbury, Canongate and Mills & Boon (these were contacted because of the belief that ebooks would form a key contribution to accessibility and because they had featured in articles on ebooks in the Bookseller).

Telephone interviews covering policies on accessibility and ebooks were conducted with Steven Bhaskhar of Pan Macmillan on 12 January 2009, Dan Franklin, head of Canongate's ebooks program on 6 April 2009, Graham Bell, head of digital productions at HarperCollins on 24 April 2009 and Brad Dawson of Penguin on 13 November 2009. E-mail contact on the same topics took place between the researcher and Stephen Essen, Group Publishing Operations Director of Random House, Lizzie Jones, chief editor of Faber & Faber, and Kate Harvey of Bloomsbury.

Randomised sampling was used when trying to contact small independent publishers; there was no obvious way of making a hand-picked sample representative. The easiest way to achieve randomised sampling and to contact as many publishers as possible in the shortest possible time was to place a request for information in the Independent Publishers Guild's (IPG's) newsletter (Bridget Shine, head of the Guild assisted with this); in this way a request for information reached 890 publishers. Information received from this request led to a telephone interview on 1 May 2009 with Patricia Ross who ran a company called Readhowyouwant.com which was trialling a new business model, that of becoming the accessibility partner of the publishing industry on a shared royalties basis.

Data arising from all of the interviews and e-mail contact listed above and from relevant conferences, meetings and seminars listed in appendix 4 was too varied to admit of most of the formal techniques of qualitative research analysis. The researcher took notes when collecting the data, organised material under each of the five objectives as headings and did some basic comparative analysis.

Legal reform: The literature review revealed that many of the disputes surrounding

legal reform have to do with copyright. Constant contact with key negotiators and activists involved in the WIPO campaign gave the researcher access to the text of the WBU's proposed treaty on copyright exceptions for the print impaired. It also ensured the researcher received reports on campaign work undertaken at other WIPO sessions and of lobbying work undertaken in the European Union and also a copy of a proposed memorandum of understanding on the cross-border transfer of electronic files for the purpose of producing accessible literature within the European Union. These proposed legal texts have been analysed, and as noted above the interviews conducted with Alicia Wise and Richard Orme did touch on this topic. Data on this topic was also gained by attending and observing key lobbying events undertaken by the WBU (see appendix 5).

The literature review briefly mentions another copyright-related dispute, arguments over the enabling or disabling of the Kindle 2's text-to-speech function. This was also covered in the telephone interview with Richard Orme mentioned above. Material has also been retrieved from the website of the main advocacy group working on this, the US-based Reading Rights Coalition. Details of attempts to reach a solution within the UK were obtained in informal conversations at the Right to Read Alliance on 18 March 2010. The industry's perspective was gained through e-mail correspondence with the Society of Authors and the Association of Authors Agents and also in an informal conversation with Alicia Wise at the 2010 London Book fair.

Ebooks: As was made clear in the literature review ebooks potential contribution to accessibility cannot be separated from the issue of DRM. All the interviews/contact with publishers contained details of their ebooks programmes and their attitude to DRM, and the interviews in March 2009 with Alicia Wise and Richard Orme touched on this topic.

The other key question raised in the literature review was whether a particular ebooks reading device or making ebooks accessible via existing assistive technology was more important. The researcher carried out a hands-on evaluation of the Kindle 2, the Sony eReader, the iPhone and the iPad. This sort of assessment

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entails looking at the tactility of the device's controls and how easy and intuitive it is to use generally. It was important for the researcher to do this so as to be able to put the comments of other visually impaired users into some sort of context. The researcher also attended a day-long seminar organised by the British Computer Association of the Blind looking at relevant Apple technology on 16 July 2010. An e-mail group hosted by Google dedicated to visually impaired users of the iPhone with more than 400 members was found and monitored for comments on the iPhone being used to access ebooks. Comments on the usability of the Kindle 2 by those with residual vision were retrieved from Amazon's accessibility blog and from e-mails sent round the British Computer Association of the Blind's user group.

Research has also been carried out into attempts by the main producers and distributors of assistive technology in the UK to make Adobe ebooks readable by media players currently used by visually impaired people. Notes were made on telephone conversation with Neil Milliken who attempted to build access to DRM-protected ebooks into mobile phones marketed to the visually impaired by Iansyst, with Sight and Sound who also sell mobile phones to the visually impaired, and with Humanware, the main distributor of DAISY players and portable computers with Braille output.

Trade literature in the US also mentioned a new piece of software called BLIO developed by a company called Kurzweil with the explicit intention of making ebooks fully accessible (Korowai also sell scanning software to the visually impaired). Information on this was retrieved from the website www.blioreader.com and from monitoring an e-mail user group called Access the Higher Education Network dedicated to accessibility matters in US education.

DAISY: Questions raised at the end of the previous chapter revolve around publishers' attitude towards DAISY as a format and the activity of the DAISY Consortium and its link to the publishing industry as a whole. Publishers were asked about their willingness/ability to produce DAISY books in the interviews mentioned above. Insight into the aspirations and activities of the DAISY consortium was gained from a lengthy semi-structured interview with Stephen King and Peter

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Osborne, the UK representatives of the Consortium, conducted on 21 February at the RNIB in Peterborough. This interview was transcribed in full; the views on the future relevance of DAISY were developed through comparative analysis of this interview and data gathered from contact with publishers.

Analysis: Because data had been gained in a multiplicity of ways and in various forms, from complex legal documents to brief e-mails, minimal primary research was done after the interview with Hilary Higgins of Frontier Books in February 2010 (in fact there was a considerable gap between the interview with Brad Dawson of Penguin in November 2009 and the final interview with Hilary Higgins). Some time had to be given to organising and sifting data and organising findings into a coherent narrative. It was decided to treat the accessibility landscape and stakeholder relations as one topic, and to treat legal reform, ebooks and DAISY as a unified theme. Data was therefore organised under these headings and subject to comparative and content analysis. Although the researcher was able to gain comments from people in the visually impaired community on proposed solutions on access to trade books, it was not possible to gain the comments of key people in industry.

4.3.2 Access to books in higher education

Fieldwork on this topic is not described under the headings of the five objectives separately, because data from each aspect of the fieldwork is relevant to all five objectives. Rather the idea underpinning research into this topic was that JISC TechDis act as a bridge between learning support workers and the visually impaired students they help on the one hand, and publishing industry representatives on the other. They therefore seemed the best-placed to provide as neutral an overview of the situation as it was possible to get, so a semi-structured telephone interview was arranged with a JISC TechDis senior manager, Alistair McNaught, which took place on 16 October 2008. This covered his work with learning support workers and publishers and the guidance he had issued to both, his views on the current legal situation and finally his work launching the new publisher lookup service, www.publisherlookup.org.uk, a website on which publishers leave contact details for the person who can provide support workers with an electronic file of a book.

This interview was transcribed verbatim and analysed before beginning the work of contacting learning support workers and publishers.

Contacting learning support workers: One of the standard criticisms of qualitative research is the small samples used and the problem of generalising findings to the overall population. For this reason ethnographic techniques based on visiting a pre-selected sample of learning support workers and observing their work was deemed an inappropriate method of data collection; in short there was a risk that support workers with particularly relevant experiences might be missed. Three other considerations led to an approach based on in-depth case studies of selected universities being rejected. First, the data from this exercise was to be used in a discussion on whether changes to law were necessary; because of this it was judged that it was essential to make the data as representative of the whole university system as possible. Second a hypothesis underpinning this aspect of the research, reinforced by the Harris & Oppenheim (2003, pp.243-257) was that standards of practice in universities would range from the excellent to the poor, and there was simply no way of knowing in advance which institutions fell into which category. This in turn meant a representative sample could not be achieved. The third consideration is linked to this. It was suspected that institutions where practice was of a poor standard would be unwilling to allow a visit, and this would make results even more unrepresentative.

Also the use of focus groups was rejected because it would inevitably involve using samples of potential respondents rather than trying to contact all universities with the same risk of unrepresentative results as.

Interviews were deemed inappropriate largely because of the time it would take both to conduct and transcribe the numbers of interviews involved (if all universities were contacted there would potentially be 109 interviews to be transcribed).

A questionnaire was therefore judged to be the most appropriate way of contacting support workers. It offered the possibility of contacting all 109 universities, and provided enough effort was put into achieving a good response rate the risks

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associated with sampling could be minimised (it was thought that support workers would be interested in the topic and so a reasonable response rate was anticipated). A questionnaire could be designed in such a way that respondents could be given maximum opportunity to express their opinions and relate their experiences and so would provide rich data, and if support workers found filling out the questionnaire manually inconvenient, telephone interviews could be used to collect their response.

Discussions were held with supervisors over what form the questionnaire should take, and four areas of investigation were agreed upon, those of the realities facing support workers in their day-to-day job and best practice guidelines, issues of resource and training (again, the Harris & Oppenheim [(2003, pp.243-257)] study had caused the researcher to question the assumption that support workers would all be highly trained), support workers' dealings with publishers and finally their views on whether academic publishers should be legally obliged to take greater responsibility for accessibility.

The researcher drafted a questionnaire, taking care to ensure that questions were entirely neutral in tone and could not be interpreted as leading or inviting a particular response. Since the main aim of the questionnaire was to capture opinions and experiences, most of the questions were of the open-ended variety. For example rather than inviting staff to rate the level of training they had received on a scale of 1-5, staff were simply invited to describe their training; it was judged that this approach would generate much richer data.

Both supervisors considered this first draft too short, and so although some questions which had been designed to allow respondents to write free-style answers were kept unchanged, others were broken down into multiple choice, tick-box questions and some questions were inserted. The researcher and both supervisors eventually agreed on a questionnaire which contained 22 questions; a copy can be found in appendix 1 and a list of respondents, grouped according to mission group statement and not in response order, can be found in appendix 2.

Initially it had been thought, based on what Nicholas Joint (2006, pp.168-172) had written in his article, that the questionnaire should be targeted at librarians, but the process of gathering contact details of potential respondents from university

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websites made it clear that access to books was not just the responsibility of librarians, but also of staff in disability and additional needs departments and sometimes both. Accordingly the questionnaire was pilot tested on a university where librarians were mainly responsible, on a university where disability and additional needs department staff bore the brunt of the work, and finally on a university where the work was shared more or less equally between the two. The pilot test took place in the last 2 weeks of October 2008 and was entirely successful in that full responses were received from all 3 universities and no changes to the questionnaire were thought necessary.

The questionnaire was hosted online at http://freeonlinesurveys.com and was conducted between November 2008 and May 2009. Sixty responses were received from people in 56 universities. There were 53 responses online, two full responses were sent in by email due to technical difficulties filling in the questionnaire online, one response was taken over the phone, and the rest sent in some general comments by email without filling in the whole questionnaire.

It was accepted that more than one person might respond from the same university; the reasoning for this was that different people in the same university might have had entirely different experiences and dealt with different publishers.

In May 2009 some follow-up work was done with those respondents who had been the most informative and vociferous; they were asked by email to what extent they felt students were disadvantaged by the current situation and whether they knew of students who had left university due to lack of access to the curriculum.

Although the researcher had some idea of the kind of material that would result from the questionnaire, it was still felt prudent to subject responses to thematic analysis to check for the emergence of unexpected themes. Next the process of content analysis was begun using what Robson (2002, p.456-457) describes as a quasi-statistical approach, namely the counting of words and phrases to discover the prevalence of particularly views and other significant correlations. Freeonlinesurveys.com has a facility which enables an analyst to list all answers to a

particular question together; this was useful for comparing and contrasting answers to questions which sought people's experiences and opinions. Some quantitative analysis was also carried out using Freeonlinesurveys.com's features which give percentages of respondents who answer yes/no or multi-choice questions in a particular way.

Finally all responses, including data from the follow up work mentioned above, were copied into an offline dataset. A final check was made of the numbers expressing opinions one way or the other on controversial topics by using search commands on character strings. The inaccessibility of the more standard data analysis software packages meant that this approach had to be adopted.

Contact with students: As stated earlier, focusing on the experience of disabled people is a key principle of disability research. This means that although the focus of this research project is the system underpinning their access to books, students' experience of that system cannot be ignored. A focus group would have been used, but visually impaired students cannot be contacted via a single network, and there is no conference dedicated to their concerns at which they gather and where they could easily be contacted. Also the Data Protection Act makes it very difficult to contact disabled students. One would have to send a letter to the head of a university's disability department asking them to distribute it to students in the full knowledge that students' responses might contain negative comments about that disability department. This would be a diplomatically fraught process and one which might be regarded as ethically dubious. The Equality Challenge Unit, officer for students with disabilities at the National Students Union and the now defunct National Bureau for Students with Disabilities (SKILL) were asked if they had any information regarding students' thoughts on the levels of access to books they received, but without any response.

Nevertheless contact was made with three students currently at university by other means. Two were contacted through the email user group of the British Computer Association of the Blind, and both of these students were at universities which did not respond to the questionnaire. A third student was contacted at a regional

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campaigning forum of the RNIB on 25th September 2009; this student had left a university which had responded to the questionnaire due to problems accessing the curriculum, something not mentioned in the university's response; it was obviously necessary to compare her experiences with what the university in question had said about the situation in that institution. Also it was possible to infer from one or two of the responses to the questionnaire how students might feel about the service in the university of the respondent, and further useful data on students' attitude to the service they received emerged from details of lawsuits brought against universities under the DDA supplied to the researcher.

Contact with academic publishers: Initially it had been thought that it might be necessary to use a questionnaire to contact academic publishers, the use of focus groups and of observation being rejected for the same reason given above when describing contact with trade publishers and with learning support workers in universities.

It was judged that all the major UK academic publishers should be contacted (purposive sampling). Two companies, Palgrave Macmillan and Taylor & Francis agreed to full-length interviews. Mark Majurey, head of rights and digital resources at Taylor & Francis was interviewed on 27th November 2008, and Clare Hodder, head of rights at Palgrave Macmillan, was interviewed a week later, both by telephone. Topics covered in the interview included company policy on provision of accessible copies of books, their ebooks programmes, DRM, whether publishers could generate DAISY books themselves, and finally their views on legislative reform. These interviews were written out in full and analysed against the five objectives listed at the end of the literature review with notes being made on instances of where the interviewee's tone of voice was judged to be informative. Contact with other publishers was much briefer and consisted of brief email exchanges with personnel in publishing houses who fielded requests for electronic files of a book. Companies contacted in this way include Cambridge University Press on 9 February 2009, Facet on 6 January 2009, Hodder Education on 9 February 2009, Oxford University Press on 8 January 2009, Pearson on 8 January 2009, Sage on 26 November 2009 and Wiley-Blackwell on 9 February 2009.

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McGraw-Hill ignored requests for an interview, but a brief statement on accessibility was retrieved from their website.

Publishers not listed on the lookup website but mentioned by respondents to the questionnaire described above were also contacted, namely Wilan Law publishing, Facet and the CIPD.

Other significant contacts: It was also judged necessary to try and contact a range of smaller academic publishers. It had been thought that the lookup service could be used for this (132 imprints were listed on the site when work began), but an examination of the site showed that contact details were always for the parent company. The Association of Learned and Professional Publishers was asked for information on any work done on promoting accessibility among smaller academic publishers.

The Publishers Licensing Society sent a copy of a new license which allows institutions to share material they have made accessible.

Information was retrieved on the National Instructional Materials Accessibility Standard and the Individuals with Disabilities Education Improvement Act in the US by means of a telephone interview conducted on 18 August 2009.

Analysis and follow-up work on access to higher education books: Once initial contact with JISC TechDis, students, learning support staff, publishers and trade associations was complete, each of the five objectives were used as a heading/code and relevant material from each source was written out under each heading. Data was then subjected to comparative analysis and ideas on possible ways forward began to form.

 As noted above, this research project has taken place in the context of an ongoing campaign and continued technological development, so it was felt necessary to maintain contact with relevant parties and gain their reaction to ideas on solutions and possible ways forward. On 5 October 2009 the researcher took part in a

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roundtable discussion with Alistair McNaught of JISC TechDis, Jim Russell of Russell Associates and Mrs E. A. Draffan of Southampton University, the latter two being involved in a pilot project on accessible textbooks in schools. The purpose of the discussion was to look at the feasibility of ideas on possible solutions which the researcher had begun to formulate based on centralised repositories. Subsequently, the researcher sent a brief summary of these ideas with requests for comment to Dr Alicia Wise of the Publishers Licensing Society, Clare Hodder of Palgrave Macmillan, Mark Majurey of Taylor & Francis and Huw Alexander of Sage, all of whom responded positively.

Contact and an exchange of news and views with Alistair McNaught of JISC TechDis was reasonably constant throughout most of this project. This led to the researcher being put in contact with Mr Nav Ashraf and Mr Krystian Kuklinsky who were trying to set up a company called Bookscholar which would receive publishers' files and supply accessible copies of books to universities on a financially self-sustaining basis. The researcher met with both Mr Ashraf and Kuklinsky in March 2010 and has maintained e-mail contact with both.

4.3.3 Securing access to online bookshops and libraries

The questions on web accessibility raised in the previous chapter were how accessible books-related websites were, what policies ebooks retailers and aggregators had to ensure the accessibility of their websites, whether productive relations were being forged between advocacy groups and those responsible for ebooks-related websites and whether new laws were needed to promote web accessibility.

The literature review featured three aspects of research on web accessibility, the role of accessibility guidelines, testing for accessibility by automated tools, and testing by disabled users themselves. The research underpinning this project seeks to incorporate these aspects to varying degrees. The accessibility landscape is documented by means of user testing of various websites and a technical audit of some pages provided with the assistance of a charity called Abilitynet (see below). This data informs discussions of industry and legal policies designed to promote

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web accessibility and is supplemented by semi-structured interviews with relevant people in the industry and, in the case of websites in academia, with informal discussions with Alistair McNaught of JISC TechDis. Semi-structured interviews were chosen for the same reasons described in section 4.3.2 dealing with access to books. Indeed although the research on web accessibility is on a smaller scale, it has been designed to mirror as far as possible the research on access to books.

It was decided early on not to use any testing using automated tools. There were three reasons for this. First, automated tools cannot determine whether a breach of accessibility is actually important or not, that is to say likely to cause a user genuine problems using the site. Second, it emerged that web developers ask other developers for work-arounds so that their site can achieve a higher accessibility score than it should[1], which further undermines the usefulness of any score from an automated testing tool. Finally comparing scores from automated tools with rating scores given by users is only done when a large number of websites are being tested by a large number of users which was not the case here[2].

Online bookshops: The basic idea behind this part of the research was to design an accessibility test according to a customer satisfaction model, i.e. to set participants the kinds of task that a typical customer would do on the sites and then get them to rate the sites based on their experiences completing those tasks. This aspect of the research is based firmly on the precedents laid down in the studies on web accessibility described in the literature review, and thus matches the definition of accessibility in chapter 1. The two sites selected were those of Waterstone's and W. H. Smith's ebooks store. This was because accessibility work had been done on Amazon and Ebooks.com, and although Penguin has an ebooks store, it was judged that customers would probably go to an online bookshop rather than to a publisher's website.

Six participants were recruited, all of them friends of the researcher. Although this is a small number, there was a wide range of ability and experience amongst volunteers, one describing himself as a novice when it came to shopping on the Internet, and others being very experienced Internet users. The assistive

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technologies being used were Jaws screen reader and Supernova magnification software. When the researcher discussed the sample size with other web accessibility researchers, including Jenny Craven of Manchester Metropolitan University who co-authored the study quoted in the literature review, it emerged that this was a respectable number of participants for a survey where no material incentive for participating was being offered (when obtaining ethical clearance to work with visually impaired people, the researcher had declared no material incentive would be offered).

Care was taken to ensure that the versions of assistive technology being used by participants would not prevent them from completing a particular task. Exercises were also designed in such a way that one task led naturally to the next (links participants needed to find were on the page where they would have ended up when completing a task). To prevent the exercise becoming a test of the level of participants' information-seeking skills, they were told links should be on the page they were on.

On the Waterstone's site volunteers were asked to click on the ebooks link and review the category page, to use the advanced search feature to see how many of Kate Mosse's books were available for purchase on the site, and finally to go through the process of registering an account, stopping at the point where they were requested to confirm registration. On the W.H. Smith's ebooks store the tasks were the same except that volunteers were asked to review crime and fiction and search for *The spy who came in from the cold*. Volunteers were also asked to record how long they had taken to complete each task and to give each site a likert score, 1 being very poor and 5 being excellent. To ensure that the test did focus on the usability of the site and not participants' navigation skills, tasks were designed so that when one task had been completed, the link that participants needed to click on for the next task was on the same page and they were told this.

It was not possible to supervise participants as they completed the tasks because they were located in different parts of the country and not prepared to travel; indeed two participants were from abroad. While there was a risk that this might mean that

participants might not seriously engage with the tasks set, they were asked to give a full account of what happened when they completed tasks, and the level of detail in responses provided suggests that in most cases they did what was asked.

Meanwhile a charity called Abilitynet which has a proven track record of sound work in promoting web accessibility and associated guidelines was commissioned to carry out an accessibility audit of pages on the W.H. Smith and Waterstone's websites according to those guidelines. The researcher did not have the requisite technical skills and in-depth knowledge of specific guidelines to do this, the researcher's level of vision is such that it would have been impossible to detect breaches of guidelines which were only detectable by eye. The charity's consultant, Mr Curt Holst, was asked to examine the code of the home page of each site, the advanced search page of the Waterstone's site and the account registration page of the W.H. Smith site and to list ways in which the code breached accessibility guidelines and to explain why those breaches might be important and cause a visually impaired user difficulties. The consultant was asked not to express a personal view on the accessibility or inaccessibility of either site, nor to give them a rating. The idea was to see whether users complained of the difficulties that Abilitynet's consultant had warned they might. If they did, this was evidence in support of the importance of those guidelines; if not, then there was evidence that enforcement of guidelines should not be compulsory.

Waterstone's and W.H. Smith were offered access to the data resulting from this test and were asked for interviews, but without success.

Academic online libraries: the first piece of work carried out on this topic was an accessibility test of a DRM-free ebooks platform, Palgrave Connect in April 2009. After the interview with Clare Hodder in December 2008, the researcher was asked to arrange an accessibility test of the platform at the same time it was being trialled on university librarians, to the researcher's knowledge a first in the UK. Efforts were made to recruit other participants at Sheffield Hallam, Oxford, Oxford Brookes and Newcastle universities. These universities were chosen partly because they had been particularly communicative responding to the questionnaire described above and

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partly because they had told this researcher visually impaired students were present at their universities; also Clare Hodder had contacts at Sheffield Hallam and Oxford. Unfortunately attempts to recruit other participants were unsuccessful.

The researcher reviewed the site and sent feedback, and later investigated what had been done with that feedback. The researcher also looked at Tailor & Francis's ebooks store and made some note on the site's level of accessibility.

An attempt was made to start an accessibility test of various academic libraries along the same lines as the test of the Waterstone's and W.H. Smith's ebooks store, but this failed at the pilot test stage. The necessity of having to enter each library being tested via the Athens home page and having to navigate back to that homepage after a library had been tested was simply too frustrating, and no other volunteers in Loughborough University or in any other universities could be found. Therefore the work on this topic has consisted largely of interviews with industry representatives discussing known accessibility difficulties with the website, what accessibility features the books in their libraries actually have, and which aspects of the accessibility guidelines libraries found difficult to adhere to. Comments from a user's perspective are mostly the researcher's own thoughts based on looking around the sites in question and trying to read books on them, although it was possible to obtain details of two other students' experiences using the online libraries in question by e-mailing learning support workers and librarians contacted during the implementation of the questionnaire.

Interviews with people in industry: JISC TechDis were planning to start research on the accessibility of online academic libraries at more or less the same time as the researcher, but it was judged that endeavours should be kept separate, particularly as JISC TechDis were being given password-free access to carry out accessibility testing; it was judged it would be a breach of confidentiality for the researcher to be allowed to take advantage of this, particularly as the researcher might want to circulate results independently of JISC TechDis. Instead Alistair McNaught wrote a small blog entry about the researcher's work on JISC TechDis's home page, and suggested that e-mails requesting interviews should link to this blog.

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Requests for interviews were sent out on 30th September 2009 to Dawsonera, Ebooklib, Ebrary, MyiLibrary, NetLibrary and Safari. Dawsonera made no response. MyiLibrary, NetLibrary and Safari sent brief responses and did not seem to want to be interviewed.

The most substantive responses were received from Ebrary and Ebooklib. Bruce Barret of Ebrary was interviewed by telephone on 12th October. Suzanne Cole of Ebooklib was interviewed in London on 11th December. Interviews covered known accessibility difficulties with the site, what policies might be in place to address accessibility issues, and which aspects of accessibility guidelines were difficult to keep to.

Websites offered to public libraries by OverDrive: It was not possible to recruit volunteers for an extensive test of OverDrive websites offered to UK public libraries. The researcher began to examine sites currently offered by OverDrive and it quickly became apparent that they all followed a similar pattern. Therefore three sites, those built for Liverpool, Luton and Bexley Heath libraries were selected at random and examined in greater detail. The researcher tried navigating various book categories, checking to see if books were available for loan and what formats they were in, and also looked at help and registration pages.

Information was sought from OverDrive on their accessibility policies. Brief comments were received from an OverDrive Marketing representative and a memo from OverDrive's CEO, Mr Steve Pottash, was retrieved from OverDrive's' website.

Endnotes

[1]. Guy Whitehouse informal discussion on web accessibility with Alistair McNaught, TechShare 2009 Conference, London, 18 September.

[2]. Jenny Craven, researcher on web accessibility at Manchester Metropolitan University e-mail to Guy Whitehouse, 4 December 2009.

Chapter 5 The accessibility landscape and stakeholder relations

This chapter details fieldwork carried out in connection with the first two objectives listed at the end of the literature review, namely outlining the accessibility landscape in the absence of a universally accessible version of a book and assessing relations between stakeholders in the industry and the visually impaired community; in this chapter the focus is on trade books (higher education is dealt with in Chapter 6).

The chapter begins by looking at the research questions raised in connection with the accessibility landscape and by describing the results of desk-based research into the contribution to accessibility made by third sector organisations, public libraries and visually impaired self-help groups; the material on public libraries is supplemented by an interview with the head of a project looking into the notion of a core public library offer to the visually impaired, Helen Brazier of the RNIB. The chapter then goes on to look at the current level of accessibility provided by the industry based on industry statistics from the trade literature, interviews with audio publishers and the experiences of some people with residual vision who contacted the researcher with their experiences of using ebooks. Mapping out the accessibility landscape in this way is important because it helps explain some of the attitudes that the visually impaired community bring to proposals and discussions aimed at solving the lack of access.

The chapter then moves on to examine the state of relations between key stakeholders in an attempt to assess the extent to which they help solve the lack of access or contribute to it. It addresses the questions raised at the end of the literature review under this heading, specifically whether publishers have specific policies designed to address accessibility issues and whether the Accessibility Action Group is making an effective contribution to a solution. It also looks in greater depth at the dispute over the Kindle 2's text-to-speech function. Use is made of material gained from interviews with the head of accessibility at the RNIB, Mr Richard Orme, with the head of the Accessibility Action Group, Dr Alicia Wise and of material gained from contact with relevant personnel in publishers. Use is also made of data

gathered by attending seminars on accessibility held at the 2009 and 2010 London Book Fairs as an observer and by attending meetings of the UK Right to Read Alliance.

5.1 Third sector and public library activity

The introduction and literature review featured claims that only 4.5% of copyrighted books ever appear in an alternative format. To see if this was actually the case and to backup their campaign for enhanced copyright exceptions, the WBU asked the researcher to conduct a new survey of charitable organisations producing accessible literature in eighteen countries. Organisations were asked how many books they had transcribed in 2006, 2007 and 2008, how many books were published in their countries in 2008, and how many books were transcribed under exceptions, under licensing arrangements and from the public domain. Findings of this survey will be discussed later, and much of the data is beyond the scope of this thesis, but the RNIB reported 2,283 new additions to its catalogue in 2008. Calibre Audio Library added 700 new titles to its catalogue[1]. Another library, Listening Books, which makes books available to the blind and people with other print disabilities, added 200 books to its catalogue in 2008[2], making a total of 3,183 new publications in an alternative format. According to Nielsen BookScan (2009), 120,947 new titles were registered in the UK during 2008, meaning that the UK charitable sector achieved an accessibility rate of 2.6%.

In fact the notion of an absolute accessibility rate is rather dubious, because Nielsen's figures are based on ISBNs, but publishers do not always issue an ISBN when they license large print or audio rights to specialist producers for the library market[3]. Nevertheless, even if this problem is set aside, the real accessibility rate for 2008 will have almost certainly been lower than 2.6%, and definitely lower than 4.5%. The RNIB were unable to say how many of the 2,283 additions to their catalogue were duplicates, in other words the same titles being produced in more than one alternative format, but admitted that their figures did include duplication. Then there is the problem of duplication of effort between organisations. When asked if Calibre recorded titles that the RNIB was transcribing, the director, Michael Lewington, explained that Calibre did so, and that this was in fact necessary,

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because Calibre had to make the same titles available to those of its customers who were not members of the RNIB talking books service; he did, however, say that Calibre kept in close contact with publishers in order to find out what titles were likely to be appearing as commercial audiobooks in the near future, and this did avoid Calibre recording books which the publishing industry would make available itself[4]. Since the RNIB have had contact with at least three of the major trade publishers (this will be discussed below) it is likely that they will also have managed to avoid much duplication with the industry, although since the appointment of a publishing strategy officer is a fairly recent event, in this respect they might not have been as efficient as Calibre.

As stated in the introduction the transcription activities of organisations like the RNIB and Calibre Audio Library are dependent largely on charitable donations. It is therefore very much in their interests to persuade public libraries to play a part in making books accessible. Research did reveal that thinking on this in Share the Vision, the advocacy group responsible for promoting visually impaired people's interests in public libraries, had gone beyond what was noted in the literature review, namely the replenishing of book stocks in audio and large print when they dropped below a certain level. A new notion had arisen, specifically the idea of a core public library offer to the visually impaired, and this had led to the initiation of the Northeast Accessible Library and Information Service (NEALIS) Project which was discussed in a telephone interview with the project director, Helen Brazier on 9th December 2009.

She explained that the project had arisen out of concern that library offers were random and poorly communicated to potential users, and that there was also a perception amongst librarians that the majority of visually impaired people were elderly and only interested in audiobooks read by the right narrator. Consequently a four-year pilot project had been started in 2008 with the intention of identifying ways of improving matters and obstacles to an effective library offer. The project was focusing on systematising library offers, improving communication between librarians and people with all reading disabilities and encouraging libraries to think more imaginatively about services they could provide such as transcription work.

The project had started with an awareness-raising exercise in which people with reading disabilities had been brought together with librarians, library service managers and even a local author. The exercise had revealed what the project organisers had expected, namely that awareness amongst the reading-disabled community of what libraries could offer was limited. Ideas were canvassed on the services libraries should be providing, while making allowance for the current economic climate. The project had then moved into a more inward-looking phase in which service managers were looking at how resources could be deployed to provide maximum benefit to people over the widest area.

The project was covered briefly at the meeting of the Right to Read Alliance on 18 March 2010 attended by the researcher. A member of the Northeast branch of the Society of Chief Librarians stated that the thinking was that public library services for the visually impaired would be concentrated in large regional libraries which could be accessed by smaller libraries. He went to considerable lengths to stress the pressure on library budgets, illustrating how severe the cuts were by saying that his own book-buying fund had been reduced by more than £100,000.

The researcher did approach two local government officers involved with the NEALIS project for information on any conclusions they had drawn regarding taking on transcription work of the sort done by the RNIB, and on whether they had considered receiving publisher files and running them through conversion software to generate alternative format versions of a book, but was told briefly that internal discussions had not gone that far; they were also unaware of conversion software[5].

In the interview mentioned above Helen Brazier directed the researcher to the Accessible Information and Reading Services based in Gateshead which undertakes transcription work. The website suggested that it might only transcribe small documents, but enquiries did reveal that they could transcribe books with enough notice[6].

E-mails were sent around the Lis-pub-libs user group which has 900 members asking whether librarians were taking advantage of the exceptions in the Copyright (Visually Impaired Persons) Act to undertake transcription work or scan books on

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request, and soliciting opinions on the idea of receiving publishers' files to generate alternative format versions of books.

The Carnegie library in Portsmouth, which had a visually impaired woman in charge of the department responsible for services to the visually impaired, had tried obtaining digital files from publishers but with minimal success; they had, however, started scanning small documents and making them available on memory sticks to be listened to on the RNIB's latest MP3 player, the Boombox. They were not however scanning books at the moment[7].

Linda Corrigan, a former National library for the Blind employee involved in promoting visually impaired people's interests in public libraries, saw the researcher's e-mail to the lis-pub-libs user group and reported that a few other libraries had undertaken transcription work and had scanned books on request. She went on to say that the main library in Bradford had purchased its own brailling machine, and that libraries in Cumbria had recruited volunteers to read on to cassette some books by local authors which visually impaired library members had specifically requested[8].

There was one concerted attempt to make synthetic audiobooks available across all UK libraries which came from an organisation called Frontier Books, but it failed. Frontier Books was set up by a couple, one of whose brothers had recently gone blind. The idea was to make recently published paperbacks which were not coming out as audiobooks available as scanned text and synthetic audiobooks, and in the end they amassed a collection of around 1000 books. However when they approached all 208 library authorities with their offer they were turned down. The view of most authorities seems to have been either that they were already fulfilling their responsibilities under the DDA by providing some books in alternative formats or else that they had no visually impaired users, so that taking Frontier Books's offer was unnecessary. Just as interesting is the reaction of the visually impaired people used to trial Frontier Books's collection; although younger participants liked the service, older people disliked the synthetic voice and the collection on offer (they wanted much older books rather than modern fiction) and they wanted to stay with cassette recordings. In the end Frontier Books had given up offering its services to

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libraries and passed its files on to the internet library Seeing Ear[9].

Research found that some librarians seem confused about what was legally
permitted in the way of transcription work; an Essex librarian reported that his
library had looked into scanning and converting scanned text into MP3 but rejected
it, partly because of what was then the complexity of the task and the expense of the
software, but partly because he believed that the Copyright (Visually Impaired
Person's) Act did not allow such material to be lent out by libraries[10], whereas in
fact it does (United Kingdom 2002). This does suggest that Share the Vision's
bulletins are not always reaching librarians responsible for services to the visually
impaired as Helen Brazier had suspected. When the researcher mentioned how
libraries in Cumbria had recorded books on request to a librarian at the March 2010
Right to Read Alliance Meeting mentioned above, he was surprised this was
possible.

Efforts were being made to include visually impaired people in reading groups. One
librarian in Hampshire reported that he had set up several reading groups where
visually impaired people were in the majority[11], and some libraries did offer
extended loan times and home delivery services, but apart from that according to
Helen Brazier public library services to the visually impaired seem to consist of
providing whatever audiobooks the library chooses to buy or subscribe to and the
payment of a subscription to the RNIB's talking books service, though she went on
to say that local government were increasingly unwilling to pay this subscription.

Share the Vision and the Right to Read alliance were aware of the potential of
ebooks to enhance the offer of public libraries to the visually impaired once they
became fully accessible, and the literature review did feature newspaper articles
suggesting that libraries were becoming more interested in ebooks, but research
carried out as part of this project suggest that it will be a while before they form a
substantial part of any core library offer. Katie Pecacar of the Museum, Libraries
and Archives Association sent the researcher a list of ten libraries with ebook
collections[12]. The largest collection the researcher could find was that of Essex
public library: Adobe Reader format 812 titles, Mobipocket format 432 titles, MP3
Audiobook format (added Feb/09) 142 titles and WMA Audiobook format 2178

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titles[13]. After that came Luton with a total of 1300 titles split equally between ebooks and audio[14]. A marketing representative from Overdrive told the researcher that 14 UK libraries subscribed to their content and that platforms were being built for many more[15].

Where ebooks were on offer they seemed to be gaining in popularity, with Luton Library reporting that they now accounted for between 25 and 30% of the issues from their website, and four new users registering daily[16]. Essex Library reported that they were considering extending their titles based on the success they were now having[17]. It is also worth noting that audio downloads offered by public libraries are also providing a new point of access for the visually impaired. The principal librarian at Luton Public Library, Fiona Marriot, told the researcher in e-mails on 26 March 2009 and 29 October 2009 that partially sighted and blind people were using their new audio download service provided by Overdrive, and that the service was also popular with fully sighted customers; during the first six months 270 customers had subscribed to the download service and there had been 1,000 downloads of audiobooks. This is important, as the more mainstream customers declare an interest in audio, the more any visually impaired customers, who are bound to be in a minority, will benefit.

Nevertheless there remain considerable obstacles to further expansion. These formed the bulk of the chief librarian's talk to the Right to Read Alliance referred to above. Librarians still could not get the stock they wanted from just one aggregator, and they found the proliferation of potential aggregators more a source of confusion than a help. There was confusion over the business model and rules applying to the usage of content; people over the whole of the country could register online with Essex library and use their ebook and audio download content, but far more restrictive practices were in operation elsewhere. The fact that Overdrive did not allow users to return content early even if they had finished with a title was a source of irritation. Interestingly what the member of the Society of Chief Librarians wanted was one big database with all titles being produced on demand in whatever format the user chose. Perhaps aware of the low stock of audio titles in libraries, Helen Brazier told the researcher in the telephone interview referred to above that the RNIB was thinking of making its stock of talking books available for download

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to public libraries.

5.2 Self-help activity

Before turning to access provided by developments in the mainstream, it is worth
noting examples of self-help by visually impaired groups and individuals; it will be
remembered that the study by Loughborough University quoted in the literature
review did not attempt to look into this. Seeing Ear (www.seeingear.org) is an
online library which operates under a Copyright Licensing Agency (CLA) license
which allows it to scan and upload books without publishers permission and to
make those books available to those who provide documentary proof of a visual
impairment; the librarian did not give figures of how many books had been added
each year, but reported that thus far a catalogue of 2,000 books had been built up[18].
One of the findings of the WBU survey mentioned at the start of this chapter was
that some libraries based in other countries can supply books to visually impaired
people in the UK under license. The Danish Library for the Blind can supply books
to UK customers provided they are not sent in electronic formats, and one US-based
internet library, Bookshare.org, has worldwide distribution rights for approximately
4,000 of the 43,000 titles in its catalogue.

Both Seeing Ear and Bookshare.org work strictly legally, but this restricts the
service they can offer their users. An example of this is that Peter Ackroyd's books
on Bookshare.org are not available to UK users because of the licensing terms
granted by publishers. Consequently visually impaired people have taken to sharing
books illegally, or in ways that are legally dubious, by e-mail or by more closet
internet-based libraries; the leaflet referred to in the literature review, *Overdue*,
quotes a Damon of London as follows:

> If I've spent hours scanning a book I'm not going to make a friend do
> the same. Of course I'll e-mail it to them. It's a ridiculous situation. We
> have to break the law - just to read (Marriott, Mann & Vale 2003, p.7).

Sharing books this way is illegal in a UK context partly because the Copyright
(Visually Impaired Persons) Act stipulates that the print copy must travel with the

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electronic copy if a book is shared (United Kingdom 2002), and because, as discussed in the literature review, international law does not unambiguously allow the movement of books in an accessible format over borders.

This activity is obviously impossible to quantify exactly, particularly when it comes to individuals based in the UK e-mailing books to other UK residents privately. However, increasingly it seems that this kind of private sharing is going on over borders. Examples known to the researcher and relevant to the visually impaired in the UK are chess books being shared over user groups and a secret Internet library (not named) which one can only join when recommended by a sponsor; a member of this secret library told the researcher that it had 40,000 books on it and that he would struggle for reading matter without it[19]. The researcher saw an e-mail sent on 20th September 2010 sent round a user group attached to this library giving details of an application made available via Sendspace which would apparently convert DRM-protected Kindle books into HTML. There are other examples of this legally dubious self-help. At the Computer Camp for the Blind in Vienna in the summer of 2009, it emerged that in Bulgaria the blind community had got so frustrated that it had started a website, situated outside of the country so that the Bulgarian government could not close it down, to which they were adding up to 100 books a week[20]. At that rate the level of accessibility being achieved in this way would very nearly equal that being achieved legally by organisations in the charitable sector, and might even surpass it. It can be taken as indicating that some in the visually impaired sector have given up expecting anything from the publishing industry (one avid book reader expressed this view to the researcher when they met at a chess tournament for the blind in August 2008). It is easy to see why this view has emerged given the relatively low level of accessibility being delivered by mainstream publishing.

5.3 Accessibility provided by industry activity

5.3.1 Audiobooks

The audiobooks industry in the UK is certainly a tiny part of the publishing industry economically. The now defunct Audiobook Publishers Association (n.d.) gives sales

statistics on its website for the years 2001-2006. Typical sales for a year are those for 2005/2006, £71.4 million; two interesting figures from the 2005/2006 statistics are those relating to the growing importance of unabridged titles, both in terms of units sold (800,000 units representing an increase on the previous year of 118%), and in terms of income generated (£33.4 million representing a 60% increase), though abridged books outsold unabridged. In an in-depth feature on audiobooks in the Bookseller, Tivnan (2009b) quoted sales figures (excluding downloads and sales to libraries) for 2008 of £75 million and estimated that the audiobooks sector represented 1% of the UK publishing industry's market, as opposed to 4% in the US, where audiobooks are a billion dollar industry.

The Digital Director for CSA Word, Rebecca Fenton (2009), alleges that historically audiobooks have suffered from being sidelined by the industry as intended only for the blind and partially sighted, the elderly and the ill; that phrase, only for the blind and partially sighted, is a significant one and needs to be remembered in any discussion of the relationship between the industry and the visually impaired community. On the other hand, even if Fenton's (2009) accusation is true, the industry can hardly be blamed for adopting such an attitude to audiobooks given that for quite a while a similar attitude seems to have existed amongst mainstream consumers; Tivnan (2009b) quotes some 2007 research commissioned by the Audiobook Publishers Association which showed that only 8% of those surveyed had bought an audiobook in the previous 12 months.

Unabridged audiobooks on traditional media such as CD still have a long way to go before winning general acceptance across the industry, if indeed they ever do. Stephen Essen, Group Publishing Operations Director at Random House, sent the researcher a list of nineteen titles which Random House had published as unabridged audiobooks on CD in the last few years, and went on to outline three major obstacles to making a profit on audiobooks[21] as follows:-

- retailers object to carrying many unabridged audiobooks because they take up too much shelf space for too long;

- duplication costs are prohibitive because they mean that in order to make a profit audiobooks have to be sold at a price which puts most customers off (losses had been made on some titles);

- VAT further increases the cost.

Fees charged by the best professional readers can also add to the cost of an audiobook considerably. Tivnan (2009b) quoted Sean Barrett's fees as being £300 for four two-hour sessions each day, with a typical audiobook taking between eight and ten days to record. Ben Ottridge, who is in charge of Summersdale's ebook and audiobook programme, told the researcher that the only way Summersdale had managed to publish some of their titles as audiobooks was by having staff read them, or by having voice artists agree to read books on the basis of shared royalties instead of a set fee. He also said that tying all the marketing together often made it difficult to publish an audio version of a book at the same time as the print edition; managing the timing of the release of a film and an audio version of a book to maximum effect and obtaining the audio download rights was not easy, and diaries had to be synchronised to enable an effective public relations exercise to mark the release of the audiobook[22].

Pan Macmillan told the researcher that they managed to release an audio version of somewhere between a third and a half of all their books at the same time as the print edition or very close to it, and their new preloaded audiobook format, Playaway, was selling very well[23]. W.F. Howes were wholly committed to unabridged, partly because they saw unabridged as the only true reflection of the author's work and partly because libraries formed a significant part of its customer base, though they estimated that unabridged titles now form about half of the UK market as a whole[24].

The Internet has certainly provided a boost for unabridged audiobooks. GoSpoken's service offering audiobooks on mobile phones has been very successful amongst young people and first time readers. There was also great excitement over Canongate's iPhone application for the book *The death of Bunny Munro* In the bookseller.

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On 21 April 2009 the UK right to read alliance and representatives from the publishing industry put on a seminar, targeted at smaller publishers, at the London Book Fair entitled 'ebooks: what the visually impaired and the publishing industry need to know about each other'; the researcher was present at the seminar. In his talk to this seminar Graham Bell, head of digital production at HarperCollins, also briefly mentioned his company's audiobooks programme and reported that 100 books, which normally would never have appeared as audiobooks, had been made available as audio downloads. The greatest success in the audio downloads arena is Audible; its page listing its unabridged titles was monitored from September 2009 to March 2010 and the number of books available went from 20,572 to 24,484, an increase of 3,992 over a period of seven months. Although Audible's .AAC format is proprietary, effective partnerships between the manufacturers of specialist media players for the visually impaired and Audible have enabled these players to process Audible's files, a rare example of DRM not preventing the visually impaired from gaining access to protected content. Apple's moves to make the iPod Shuffle fully accessible and to enable it to play .AAC files means that this is likely to be a long-term gain.

However, despite these positive developments nobody is suggesting that an audio edition of a book will always be produced. Downloads are beyond the reach of those visually impaired people who do not have a computer or those that do but who are not confident using the Internet. Although there were 11 million loans of an audiobook in UK public libraries in 2007-2008, there is a view that licensing arrangements are too complex and act as a deterrent to their further adoption by libraries (Neill, 2009). The transfer of physical audiobooks out of copyright and into the Public Lending Right might do something to alleviate this, though downloads in libraries will continue to prove problematic under the current licensing regime. Audiobooks have still to penetrate large sectors of the mainstream market; surveys done by BookMarketing Limited and LoveReading showed that only 2% of their membership, usually thought to fit the profile of the traditional reader (middle-aged females), were fans of audiobooks (Tivnan 2009c). Until audiobooks penetrate the mainstream market at a critical level libraries and retailers will always be reluctant to stock them in large numbers (in her communication with the researcher cited above, Fiona Marriot spoke of a wait and see attitude to audio downloads).

Even some of the most exciting developments surrounding audio on the internet pose problems for the visually impaired. Canongate's application took quite a long time to develop and was labour-intensive, so in a strange sort of way the traditional audiobook on CD suffers from being too low-tech, while the new forms of delivery are too high tech.

It also needs to be borne in mind that audiobooks are only of use to someone with both a visual and hearing impairment if the person's level of hearing is sufficient to enable them to enjoy an audiobook. Only a fully accessible ebook promises simultaneous access to a fully deaf-blind user who needs to use braille.

5.3.2 Ebooks: an accessibility grey area

As mentioned in the literature review, The RNIB report on ebooks and ebook readers stated that none of the ebook readers on the market were accessible. Some have the capacity to display a book in large print, but the menus can only be displayed in small type. A similar situation exists with Amazon's Kindle, which has a text to speech facility which enables a book to be read out loud, but the menus have no audio output; the disabling of the Kindle 2's text-to-speech function will be discussed in greater depth later in the chapter.

Although this research found no blind person owning a Kindle, it did find isolated instances of visually impaired people with residual vision using the ILiad ereader. One came to light at a conference on ebooks in further and higher education at Taunton on 5 November 2008, where the researcher met the mother of a visually impaired ten-year-old girl who was using an ILiad; her fully-sighted mother operated the menus for her. Another visually impaired woman, who was actually starting a publishing operation called New Island Books, responded to a request for information in the Independent Publishers Guild's newsletter to report that she too used the iLiad, but described her experience as 'deciphering the ebook rather than reading it', mainly due to the lack of the ability to display the text in bold type[25]. It seems that ebooks are not totally accessible or totally inaccessible, but exist in what might be called an accessibility grey area.

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As part of this research Producers of the ILiad ereader, Plastic Logic and Sony were asked if they planned to make their devices accessible, but all three declined to comment. Amazon has said that it will make the Kindle fully accessible, but without an adequate settlement to the text to speech dispute this will not be the success it could otherwise have been, and no time-scale has been put on completion of the development work necessary[26].

Even if ebook manufacturers were fully aware of potential conflicts over audio output from the start, which is doubtful, the fact that not one of the ebook readers had accessibility built into it when it was first released does seem to indicate just how low a profile the visually impaired have in some circles. The two leading representatives of the DAISY Consortium in the UK, Peter Osborne and Steven King, were philosophical about the lack of accessibility in early ebooks readers; although they were conducting discussions with Amazon and had spoken to Sony about their ereader, their view was that the visually impaired stood to gain by letting the various ebook readers fight it out and then making a move, if necessary a legal one, on the eventual winner. They confirmed there were no hardware barriers to mainstream ebook formats being read on media players specially designed for the visually impaired such as DAISY players and small portable computers with braille displays, but to enable this to happen it would be necessary to purchase licensing keys and issue a firmware upgrade[27].

Despite the complications surrounding ebook readers and the interface between specialist media players, ebooks are providing some access to those visually impaired people using desktops and the most advanced assistive technology. Messages on the British Computer Association of the Blind's e-mail user group reported that Accent Press take care to provide well-structured PDFs of their books to visually impaired customers, and Epub books can now be read with a package called EasyReader provided that no DRM is attached to the book (Franks 2009).

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5.4 Stakeholder relations

Examples of successful collaboration do exist. The main one is the success the RNIB has had in persuading the Man Booker Prize committee to add a proviso to its submission procedures to the effect that if a publisher submits a book for consideration by the jury, they have to supply a file of the book to the RNIB so that it can generate an accessible version (Booker Prize Foundation, n.d.). In response to a request from the head of the global Right to Read Campaign, the researcher drew up a list of other major prizes in the UK and countries around the world along with contact details, so that similar procedures could be put in place if the prize committees agree. At the Right to Read Alliance meetings attended by the researcher, it emerged that the publishers Association and the visually impaired sector have also jointly campaigned for a reduction of VAT on audiobooks and ebooks, achieving success at the level of the European Commission, though not, it seems, with the UK Government.

A key complaint of the visually impaired community is that the publishing industry does not take their lack of access seriously; this is implied in the title of an early RNIB campaign leaflet called *Written off*. This feeling is particularly strong amongst ordinary visually impaired people. Some of this comes from a misunderstanding of what is technically possible; in a local branch meeting of the National Federation of the Blind which the researcher attended one person commented "It's easy to generate audio files from Microsoft Word these days, publishers should do it"[28] and several people agreed with him. However even those who are more aware of how things work in publishing, such as the friend the researcher discussed access to books with at a chess tournament for the blind in August 2008 mentioned above, have expressed the belief that "We'll never get anything much from the industry; I'm fed up of those with all the advantages they've got telling us visually impaired how we should or shouldn't access books. I've got no qualms about e-mailing books to friends."

The attitude of those in organisations representing the visually impaired and campaigning for greater accessibility varies from one individual to another. Those who have been involved in working for copyright reform at WIPO are particularly

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sceptical about publishers' good intentions. When the EU called for a meeting of Europe-based stakeholders on 26 October 2009, one key activist told the researcher in an e-mail dated 1 November 2009 that "The FEP [(Federation of European Publishers, ed.)] and others love that idea, as it staves off any chance of legislation for years and would help undermine our treaty proposal.*"* Those have been involved in negotiations and lobbying at WIPO have told the researcher in frequent informal meetings and discussions over the period of this research that stakeholder platforms or meetings, including the one at WIPO, are stalling tactics and designed to achieve nothing; "The thing is, no publisher will come out and say in public that they don't regard the visually impaired as important, but it's what they really think" is something that has been said to the researcher on more than one occasion.

The head of accessibility at the RNIB, Richard Orme, who has been more involved with UK publishers, takes a slightly different view. He summarised his views on the industry's attitude as follows:

> Some kind of get it. They come along to Publishers' Association
> steering groups which they don't have to. We're talking people like
> HarperCollins, Hodder, Macmillan, Palgrave, and some have policies
> and people you can contact for books. Others are wary; they don't like
> digital publishing and ebooks because they feel things slipping away
> from them, and when we ask teachers they still say that requests for
> books are ignored. Generally I think the industry wants to find a
> solution, knowing it will be a thorn in its side[29]."

So, apart from publishing audiobooks when it feels it is commercially viable, what, if anything, is the industry doing on accessibility?

The Accessibility Action Group met quarterly and had a strategy of starting small and building up over time. Dr Alicia Wise pointed out that most publishers did not have the money or time to take part in pilot projects or experiments to promote accessibility. Although the group had key people from all the major trade associations on it, there was no question of it being able to compel publishers to participate in any accessibility projects, and although guidelines offered to

publishers hint that publishers "might be covered by the DDA as providers of goods and services" (Publishers Association, 2007), and the Accessibility Action Group's newsletter had featured the DDA ruling once (Not publishing-related), cooperation was always going to be voluntary[30].

Few trade publishers had any formal policy for dealing with accessibility requests. The request for information put in the Independent Publishers Guild's newsletter which would have reached 890 companies elicited one response from Planet Press to the effect that they had made their books available to a new enterprise ReadHowYouWant.com[31], a relatively new arrival on the accessibility scene. ReadHowYouWant.com generates the alternative format version of the book from a publisher's master file and shares royalties with the publisher (they used a grant from the Australian government to develop software which allows them to do this); it is an interesting attempt to put accessibility on a profit-making footing[32]. Faber & Faber did report that they had received requests for accessible copies of books from visually impaired individuals, and that they would supply DRM-free files direct to the individual on trust for the cost of retrieving the file from the printer[33]. Interestingly, Alicia Wise commented in her interview that most trade publishers would not be able to offer such a service even if they wanted to because of poor housekeeping practices (in some cases the publisher did not even know which was the official master file of the book signed off by the author)[34].

Of the four major trade publishers in the UK, three declared some sort of policy, much of which centred on supplying files to the RNIB. In the e-mail correspondence mentioned earlier Stephen Essen described Random House's involvement in a major initiative on access to trade books which emerged during the period of this research, the Focus Project. The idea of this project was that large print editions of bestselling titles would be marketed in mainstream bookshops alongside the standard print edition to try and assess the feasibility of marketing alternative format material through mainstream bookshops. He stressed that Random House took accessibility seriously.

Graham Bell, head of digital production at HarperCollins, when contacted by telephone on 24 April, three days after the 2009 London Book Fair seminar

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mentioned above, also stressed HarperCollins' commitment, particularly regarding access to the curriculum, though he did not hesitate to express a certain scepticism about the value of the visually impaired market; he pointed out that an earlier project similar to the Focus Project had yielded very low sales. HarperCollins would continue to work with the RNIB by, for example, giving them access to their files, but in his view the charitable sector would have to be involved in providing access to the visually impaired for the foreseeable future, unless mainstream ebook formats became fully accessible.

Penguin's policy was more or less identical, but what was noticeable was the extent to which it was prepared to be involved in background activities to promote accessibility. They were about to put together a video with JISC TechDis targeted at other publishers, describing how they could redesign their workflows so as to make it possible for other formats to be generated alongside the print edition[35].

Hachette were approached for information on their policy; after an initially enthusiastic response to the researcher's enquiry ("We don't have a policy, but there's no reason why we shouldn't have one"), communication quickly petered out; all that emerged was that Hachette had no experience of dealing with the RNIB[36]. Bloomsbury left any dealings with the RNIB to authors' agents[37], and Pan Macmillan had not thought about direct involvement with the visually impaired since the pilot project overseen by Russell Associates mentioned in the literature review, apart from a brief communication between a blind reader and one of their authors where the reader had enquired about the availability of an electronic version of a book[38].

There are ongoing disputes and underlying difficulties. Because accessibility is not core to the publishing industry's activities, and because any legal claim on publishers even relating to the curriculum is at best ambiguous[39], the visually impaired and their representatives will inevitably always be ready to go into campaign mode. This certainly can create some tension for publishers; Alicia Wise commented on the WBU's campaign "They're being very transparent in what they want to do; nobody likes being campaigned at"[40]. On the other hand, as outlined

above the feeling of being the underdog in the relationship generates resentment amongst the visually impaired sector and their representatives.

At a meeting of the UK right to Read Alliance held at RNIB headquarters in Judd Street London on 14 September 2009 which the researcher attended, an in-depth discussion was held on how long the alliance should wait before adapting a more forceful campaigning strategy on the basis that voluntary partnerships with publishers were delivering nothing and so not worth pursuing. Relationships are, so to speak, under perpetual review, and this makes them slightly fragile and vulnerable to sudden setbacks, as in the recent dispute over the text-to-speech function of the Kindle 2.

When Amazon announced that the new version of the Kindle would have a text-to-speech function allowing a book to be read out by a synthetic audio voice, hopes were raised amongst the visually impaired community, but things turned confrontational when the Authors Guild in the US forced Amazon to offer publishers the choice of not allowing the function to be enabled for their books, on the grounds that, as a pre-emptive grab of audio rights the function was a secondary breach of copyright and was a threat to the audiobooks market. Various organisations in the US formed the Reading Rights Coalition and issued an open letter to the six publishers selling books via the Kindle 2 warning them that if they disabled the text-to-speech function they would be in breach of four pieces of human rights and non-discrimination legislation. They also issued a formal statement on their view of the copyright aspects of the dispute, saying that since the text-to-speech function was not the same as an audiobook, there could be no secondary breach of copyright as a primary breach had not happened. On April 7th the Reading Rights Coalition picketed the authors' guild with placards displaying slogans such as "We'd have access to the Kindle sooner if it wasn't for Roy Blount Junior", and they distributed a pamphlet outlining their position entitled "No need for greed, we want to read." (Frye 2009, pp. 35-44).

The Authors Guild's responses to the Reading Rights Coalition have not been consistent. Roy Blount Jr (2009), president of the Authors Guild when the dispute arose, issued a response in the form of an op-ed piece in the New York Times. He

ignored the equal rights aspect of the dispute, and although he admitted that the Kindle 2's text-to-speech function was not as good as an audiobook recorded using a human voice, he dismissed the argument that Kindle 2 was no threat to the audiobooks market with the example of Norman Mailer fans wanting to listen to some of the racier parts of his novels using the Kindle 2's female voice. Later Paul Aitken of the Authors Guild suggested a solution whereby visually impaired owners of a Kindle 2 should provide proof of their disability and have their devices specially registered online to have the text-to-speech function enabled for all ebooks. The reading Rights Coalition have rejected this as discriminatory and unworkable, to which the Authors Guild have responded that the visually impaired would just have to pay extra for text-to-speech enabled ebooks (Frye 2009, pp. 35-44).

The dispute is still ongoing, with the Reading Rights Coalition continuing their campaign; an online petition has gathered 7,702 signatures[41]. The latest development in the dispute was an announcement of a compromise solution by Hachette US, which states that they do not object to the text-to-speech function so long as there is not an audiobook version available and as long as authors do not object (Wise 2009, p.10).

This dispute has had knock-on effects on stakeholder relations in the UK, though it has played itself out rather differently. The head of accessibility at the RNIB wrote to Dr Alicia Wise saying that if an acceptable solution was not found to the dispute by the end of the year, the Authors Guild's position would be regarded as a fundamental attack on accessibility and that the visually impaired community would take action. He did not specify exactly what this action would be, but it seems to have been along the lines of either bringing out a lawsuit, or taking some action to access a book which would breach the guidelines laid down by the Authors Guild and so force them to decide whether to prosecute or take no action which would be tantamount to admitting defeat. The thinking seems to have been that the public relationships disaster ('greedy rights holders attack the visually impaired who get no access anyway') would outweigh the cost even of a loss in the courts[42].

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The dispute cast a shadow over the 2009 London Book Fair seminar on ebooks and their potential to improve accessibility mentioned above. Advocacy groups from the US and the secretary of the Authors Guild were present and the two parties ended up arguing with each other and re-stating their starting positions.

In the UK things did not move on until late in 2009. Richard Orme reported to the Right to Read Alliance on 18 March 2010 that a working group had been set up to try and reach an agreement. The group consisted of board members of the Right to Read Alliance and representatives of the Publishers Licensing Society, the Authors Agents Association, the Society of Authors and some audiopublishers. He told the meeting that the industry representatives were all worried that they would be sued by each other, and that the RNIB was "applying pressure." He went on to say that the group would probably issue a document outlining best practice on the matter, the recommendation being to adopt the approach taken in the US by Hachette mentioned above, namely enabling the text-to-speech unless a full-length audiobook was available.

Best practice is, of course, not the same as a legally binding solution. Richard Orme told the Right to Read Alliance meeting that while this solution was not the alliance's ideal solution, it was a reasonable starting point, and added that many Kindle books were being released with text-to-speech enabled even when an audiobook was available. He presented figures relating to a randomised sample of 75 titles from 12 publishers, showing that 52 of the 75 had the text-to-speech enabled and that for 37 of these 52 an audiobook existed. In trying to reach a settlement in the UK, the Right to Read Alliance was primarily concerned not to undermine the efforts of the Right to Read Coalition in the US while at the same time putting in place the basic outlines of a solution which would enable them to campaign for even better results later on.

The researcher did approach the Society of Authors and the Authors Agents Association directly in an attempt to ascertain their views on the dispute. The Society of Authors stated that they had a sense, no more, that authors would want to help the blind[43], and the Authors Agents Association stated that there were ample precedents for resolving such disputes[44]. Given what Richard Orme told the Right to

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Read Alliance meeting, these responses look rather like holding positions and have a "no comment" feel to them.

At the meeting of the Right to Read Alliance on 29 March 2011 attended by the researcher, Richard Orme reported that the Publishers Licensing Society were about to formally issue best practice guidelines to the industry to the effect that the text-to-speech function should be enabled unless an unabridged audiobook was available. He went on to say that he felt an approach based on applying pressure behind the scenes rather than in an openly confrontational style as had happened in the US had ultimately been more productive.

The danger arising from this dispute is that some in the visually impaired community may interpret the fact that the Authors Guild has changed its position and given up stressing the copyright angle, at least regarding potential visually impaired Kindle 2 users, as indicating a certain lack of honesty in their approach. This would be ironic given that one of the constantly recurring themes in the industry's statements on accessibility is the need to build trust[45]. Intentionally or otherwise, this might reinforce views referred to above that the industry is not serious about accessibility and will even block it to guard against what it perceives to be a threat to its economic interests, whether that threat is real or not.

It is not easy to say whether the threat to audiobooks posed by the Kindle's text-to-speech is real or not. The fact that some publishers are enabling the text-to-speech function even when there is an audiobook is available could be taken as evidence that it does not. Dan Franklin who heads up Canongate's ebooks programme told the researcher in a telephone interview on 6 April 2009 that he was very sympathetic to the visually impaired's views on the Kindle 2, and regretted the Authors Guild's stance. He was fully aware of the potential benefits to the visually impaired and to people with other reading disabilities, and he regarded the idea that the text-to-speech function was a threat to audiobooks as entirely false, because for him an audiobook was a professionally performed version of a text.

On the other hand, although the Reading Rights Coalition's pamphlet states that the coalition represents fifteen million potential beneficiaries of a fully accessible

Kindle, and goes on to argue that this indicates that enabling the text-to-speech function makes excellent business sense, only 7,702 people have signed their petition against the disabling of the text-to-speech function. Clearly the fifteen million potential beneficiaries do not equate to fifteen million customers. This might be what lies behind Amazon's change of heart. On 12 February 2009 they asserted that their text-to-speech function was entirely legal and refused to consider allowing it to be disabled (Andriani 2009), and yet shortly afterwards they had acceded to the Authors Guild's demands even while continuing to assert that the function was legal (Jones, 2009). Amazon owns the most successful audiobook retailer, Audible; did someone in the background make some speculative calculations on the potential benefits of the text-to-speech function, compare those with sales from Audible, take into account the potential threat to Audible arising from a dispute over audio rights, and decide that it was not worth the fight? If this did happen, it is an example of accessibility being sacrificed to business interests.

One thing to have come out of the dispute so far in terms of stakeholder relations is that it has focused the Right to Read Alliance's minds on looking beyond just talking to publishers. Certainly the head of accessibility at the RNIB thinks that relationships with retailers is an area that needs working on; in an informal conversation at the Techshare conference in London 2009, he told the researcher that he was even considering getting some visually impaired people to buy an inaccessible ebook and then demand a refund, simply as a means of provoking retailers into discussing accessibility matters. The heads of the DAISY Consortium have speculated on not approaching publishers and rather talking to authors' agents[46].

5.5 Conclusions

In the area of trade publishing, accessibility as provided by the third sector in the UK is, if anything, at an even lower level than the 2004 Loughborough University study by Lockyer, Creaser & Davies suggested. Even with increased efficiency in procedures and with more money, there is little hope of the charitable sector making serious dents in the lack of accessibility. The physical processes of working with a text only available in print put an upper limit on what even the best-funded third

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sector organisation can achieve, so it is not surprising that visually impaired people have resorted to self-help activity and sharing books over the Internet. The secret Internet library mentioned above seems to be outpacing even legitimate online libraries like Bookshare.org and Read How You Want, or at least at the moment.

It is too early to draw conclusions on the notion of public libraries becoming involved in the sort of transcription work traditionally done by the RNIB while the NEALIS project is ongoing; nevertheless this research has found evidence that it can be done. Such ideas seem to be at an embryonic stage, at least in terms of people working out how they might be implemented, but given the financial limitations faced by organisations like the RNIB, advocacy groups are likely to continue to pursue the idea. Judging by the evidence presented above, they face both financial and cultural barriers.

The publishing industry does not seem to think of visually impaired people as core customers. The fact that one of the largest publishing companies in the UK had not had any contact with the RNIB is notable. In a sense this is understandable; the production of accessible literature in the UK happens primarily under exceptions, so why would a publisher suddenly think of visually impaired people as customers out of the blue? The fact that so few small independent publishing companies responded to the request in the IPG's newsletter means that it is impossible to say with absolute certainty what is going on in such companies regarding accessibility, though if Dr Wise is right when she says that such companies have neither the time or money to engage, one has to assume very little is happening.

Pilot schemes like the Focus project, while ambitious in concept, are inevitably *ad hoc* in nature and are no substitute for building accessibility into the system as a whole. It would be wrong to dismiss the Focus Project as a gimmick or token gesture; such schemes always require some background work in terms of formalising agreements on the safe transfer of files, retrieving and formatting of files, any rights clearance and liaising with retailers and so on. However it only featured 60 titles. One also has to ask the question as to whether any of these pilot schemes would have arisen without the RNIB initiating and putting the effort into maintaining contacts and driving things forward. While accessibility in trade

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publishing could not be said to be entirely an afterthought, it does seem not to be core to the business.

Given the economic deterrents attached to audiobooks on traditional media it is not even as if publishers could do much other than hand over files to organisations like the RNIB and Read How You Want. The key to more simultaneous access is either an audible digital download (The Audiobooks Publishers Association wound itself up because audiobooks were moving online), or a fully accessible ebook.

Stakeholder relationships are undermined by the fact that the visually impaired have to pursue agendas and approaches that can appear contradictory. It is in their interests to encourage a thriving market in audiobooks, and at the same time they have an interest in trying to get the Kindle 2's text-to-speech fully enabled, which, at least in the minds of some key players in the industry, undermines the audiobook market. Again, if the charitable sector is to be involved in the production of accessible literature, the visually impaired have a very real vested interest in promoting further reforms to copyright, but these very exceptions carry the risk of taking the visually impaired off the industry radar. There is no inherent system to the approach; indeed the multiplicity of approaches that have to be pursued almost militates against putting relationships on to a more systematic and productive footing. On top of all this international issues can greatly complicate stakeholder relationships in the UK. Describing attempts to promote accessibility as a struggle between the visually impaired and publishers is far too simplistic, not least because it has not always been publishers who have objected to moves that would enhance accessibility, but every move that the visually impaired have made to improve their situation and every technical development that would help their cause has been opposed to varying degrees by someone in the industry. Both sides are, in their separate ways, being caught out by the way technology evolves; the publishing industry is still getting to grips with digital technology, and digital technology does not stand still to allow accessibility or publishers' business models to catch up.

Resolving these issues involves finding a legal framework which, as far as possible, meets the concerns of both sides. Just as important is to promote conditions which allow the emergence of a universally accessible version of a book, probably an

ebook (it should be remembered that it is the lack of a universally accessible version of a book which has made all this effort with its ups and downs necessary). The next chapter examines the legal disputes surrounding access to trade books and attempts to make ebooks accessible in more depth.

Endnotes

[1]. Michael Lewington, director of Calibre Audio Library, e-mailed response to Guy Whitehouse's letter, 25 September 2009.

[2]. Jeremy Stokes, director of customer services at Listening Books e-mail to Guy Whitehouse, 23 October 2009.

[3]. Guy Whitehouse interview with Dr. Alicia Wise, chief executive of the Publishers Licensing Society and head of the United Kingdom Accessibility Action Group, London, 10 March 2009.

[4]. See note 1.

[5]. Jane Hall e-mail to Guy Whitehouse, 3 March 2010.

[6]. Janice Holmes, Production Manager of Accessible Information and Reading Services, Gateshead Central Library, e-mail to Guy Whitehouse, 3 March 2010.

[7]. Guy Whitehouse telephone interview with Portsmouth Library, 19 February 2010.

[8]. Linda Corrigan e-mail to Guy Whitehouse, 25 February 2010.

[9]. Guy Whitehouse telephone interview with Hilary Higgins of frontier books, 2 March 2010.

[10]. Jonathan Wicks, Audience Development Officer at Chelmsford Library e-mail to Guy Whitehouse, 24 February 2010.

[11]. Guy Whitehouse telephone interview with Nick Coe, Equal Access Manager, Library and Information Services Headquarters Hampshire County Council, 23 February 2010.

[12]. Katie Pecacar e-mail to Guy Whitehouse, 25 February 2010.

[13]. Essex librarian e-mail to Guy Whitehouse, 10 April 2009.

[14]. Fiona Marriott, Principal Librarian, Adult Services and Reading Development, e-mail to Guy Whitehouse, 26 March 2009.

[15]. David Burleigh, Marketing representative of Overdrive e-mail to Guy Whitehouse, 27 January 2010.

[16]. Fiona Marriott, Principal Librarian, Adult Services and Reader Development at Luton Library e-mail to Guy Whitehouse, 5 November 2009.

[17]. See note 13.

[18]. Tony Dart, Librarian of Seeing Ear e-mail to Guy Whitehouse, 22 October 2009.

[19]. Anonymised member of secret Internet library e-mail to Guy Whitehouse, 15 March 2010.

[20]. Guy Whitehouse telephone conversation with Alistair McNaught, senior manager at JISC TechDis, 30 July 2009.

[21]. Stephen Essen, Group Publishing Operations Director at Random House e-mails to Guy Whitehouse, 15 and 28 May 2009.

[22]. Guy Whitehouse telephone interview with Ben Ottridge, head of Summersdale's ebook and audiobook programme, 30 January 2009.

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[23]. Guy Whitehouse telephone interview with Michael Bhaskhar, head of Pan Macmillan's ebook programme, 12 January 2009.

[24]. Dominic White, head of W.F. Howes Publishing e-mail to Guy Whitehouse, 27 July 2009.

[25]. Siobhan Parkinson, founder of New Island Books, e-mail to Guy Whitehouse, 31 May 2009.

[26]. Guy Whitehouse telephone interview with Richard Orme, head of accessibility at the Royal National Institute of Blind People, 31 March 2009.

[27]. Guy Whitehouse interview with Stephen King and Peter Osborne of the DAISY Consortium, Royal National Institute of Blind People, Peterborough, 21 February 2009.

[28]. Text in italics here and subsequently indicates quotes from interviews, e-mails or informal conversations.

[29]. See note 26.

[30]. See note 3.

[31]. Planet Press e-mail to Guy Whitehouse, 30 April 2009.

[32]. Guy Whitehouse telephone interview with Patricia Ross of Read How You Want, 1 May 2009.

[33]. Lizzie Jones, chief editor of Faber & Faber e-mail to Guy Whitehouse, 20 August 2009.

[34]. See note 3.

[35]. Guy Whitehouse telephone interview with Brad Dawson, head of Penguin's ebooks programme, 13 November 2009.

[36]. Lucy Hale, secretary at Hodder, imprint of Hachette UK e-mail to Guy Whitehouse, 31 August 2009.

[37]. Kate Harvey of Bloomsbury e-mail to Guy Whitehouse, 5 April 2009.

[38]. See note 23.

[39]. See note 26.

[40]. See note 3.

[41]. The petition is at < http://www.thepetitionsite.com/1/We-Want-To-Read >, [accessed 08.01.2010].

[42]. See note 26.

[43]. Mark Freeman of the Society of Authors e-mail to Guy Whitehouse, 19 March 2010.

[44]. Anthony Goff, President of the Association of Authors Agents, e-mail to Guy Whitehouse, 23 March 2010.

[45]. See note 3.

[46]. See note 27.

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Chapter 6 Legal disputes, ebooks and DAISY

This chapter begins by looking in detail at how the WBU's campaign for copyright reform at WIPO has developed. It looks at the work of stakeholder platforms or working groups set up to progress matters both at WIPO and at EU level. Proposed legal texts are analysed and use is made of material gained from ongoing contact with key negotiators and activists involved in the copyright campaign.

It also looks at ebooks in the context of disputes surrounding DRM which prevents assistive technology users from accessing them. The chapter addresses questions raised at the end of the literature review relating to ebooks and accessibility, specifically publishers' attitudes to ebooks and whether visually impaired people's interests are best served by concentrating on a particular ebooks device or by adapting traditional assistive technology to make it capable of processing mainstream ebook formats. This part of the discussion makes use of material gained from what publishers told the researcher concerning their plans for ebooks and DRM. It also describes the results of a hands on assessment of various ebooks reading devices and the results of investigations into attempts by Adobe and companies manufacturing media players and portable devices for the visually impaired to build access to the ebook into their products. Two potentially significant legal developments in the US are also noted.

Finally the role of the DAISY Consortium is assessed. Publishers' reactions to DAISY and material gained from an interview with the heads of the DAISY Consortium in the UK is used to address the question raised in the literature review, namely whether the advantages of the DAISY Consortium's links with the International Digital Publishing Forum outweigh the disadvantages of DAISY existing as a specific format used only by the visually impaired.

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6.1 Background political developments in the UK and developments at WIPO

UK copyright law as it applies to digital media has recently undergone significant change. In October 2009, Peter Mandelson announced plans for a Digital Economy Bill which would toughen UK laws on piracy but which would also liberalise the laws on file-sharing, while taking care to ensure that any new UK laws were in line with the general legal framework of the EU (Neilan 2009c), and the bill was passed into law in the final weeks of the last Parliament, though the Act is already meeting with opposition; people object to some of the penalties for those found guilty of piracy and it seems that the arguments that Gillespie (2007) documents at length in his book Wired shut are spreading from the US to the UK (Neilan 2010d).

Attempts to change copyright law as it applies to the visually impaired have a national and international dimension. In November 2008 the WBU tabled a treaty designed to enhance copyright exceptions for the visually impaired at SCCR 17 at WIPO (the researcher was present). The treaty aims to set a minimum standard of exceptions for the visually impaired, including facilitating the circumvention of DRM and the movement of accessible literature over borders without permission from rights holders (World Blind Union 2008). Towards the end of the session the Federation of European Publishers, in conjunction with other organisations representing rights holders' interests, tabled a proposal for what they termed a stakeholder platform, a legally non-binding series of meetings between interested parties designed to look at the technological barriers to access and to find other ways of enabling the cross-border movement of accessible literature; in the end WIPO agreed to endorse the idea of a stakeholder platform, and to consider the treaty further at the next session of the SCCR (Standing Committee on Copyright and Related Rights of the World Intellectual Property Organisation 2008). Reports sent back from lobbyists to the researcher and to other members of the WBU's copyright working group indicated that their lobbying attempts had met with real opposition from group B delegates and that negotiations on a final communiqué confirming that the treaty would be considered further had been protracted and difficult[1] (this e-mail and others mentioned below are more strongly worded accounts of reports which can be found in the DAISY Consortium's newsletter the

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DAISY Planet, though reports in these newsletters sometimes reveal a degree of frustration).

In May 2009 at SCCR 18 Brazil, Ecuador and Paraguay formally sponsored the treaty meaning that the treaty became states-owned business, while opposition of a more open nature emerged from US and European (Group B) delegations who objected to, as they put it, stating conclusions whilst in fact-finding mode; African delegates were supportive but wanted exceptions for the visually impaired to be tied into exceptions for libraries and educational institutions (New 2009a). At the nineteenth session of the SCCR the US delegation dropped its outright opposition to the treaty, adopting the position that at least the possibility of a treaty should be allowed (Kravets 2009). Reports on this session sent to the researcher indicate that this came as a considerable and very welcome surprise to the WBU and that the change of stance on the part of the US delegation has put serious pressure on EU delegates[2]. Industry representatives from Europe are concerned about a 'general eating away at copyright' and seem to think that securing access to something like the Kindle is the best solution, and their opposition was enough to force the SCCR's official findings to go through three drafts before an agreement was reached, at around 10pm on 18 December 2009 to proceed with open-ended negotiations on appropriate exceptions (New 2009B).

On 4 May 2010 the WBU, with support and funding from an organisation called Transatlantic Consumer Dialogue, lobbied the European Parliament in an attempt to gain support for the treaty amongst members of the European Parliament, and thus to gain leverage over the EU Commissioner for Copyright (the researcher attended the session sitting in the chamber). The Federation of European Publishers also attended to oppose the treaty, though once again their argument really amounted to nothing more than the dangers of piracy; the MEPs took this to mean that organisations like the RNIB were accused of being potential criminals and support for the treaty grew amongst MEPs. The commissioner took a neutral stance.

At the next session of the SCCR at WIPO it looked as if a consensus on the need for an international instrument was about to emerge, and the Mexican ambassador to WIPO hosted a meeting to try to formalise a timetable. However an obstacle arose

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when African delegates insisted on trying to link the WBU's treaty to other exceptions for the benefit of libraries, archives and educational institutions. WIPO delegates were not prepared to accept this, and the SCCR finally broke up without issuing any formal conclusions, which effectively means that the WBU is now left with the problem of trying to decide on the best way forward (the word debacle was used in the message circulated to members of the WBU copyright working group)[3].

6.2 Overview of the WBU treaty text

The sections of the treaty which are the most relevant to accessibility for the visually impaired in the UK are Articles 1, 4, 6, 7 and 8.

The first part of Article 4 would grant individuals and not-for-profit organisations the right to reproduce a work in an accessible format without permission from the rights holder provided a version was not already available in a format suited to the individual's needs. Such a provision already exists in the UK (see above), though taken in conjunction with Article 1 of the treaty it would extend such exceptions to activities undertaken on behalf of and by individuals of all reading impairments; the extension of exceptions to other reading disabilities is mostly beyond the scope of this research, though there are implications which have already been noted and which will be discussed later.

It is Part C of Article 4 which would impact those who are the subject of this research the most. It would allow for-profit organisations to be involved in making copyrighted works accessible to the visually impaired under certain conditions, and it would also allow for-profit activity such as commercial lending for the purposes of promoting accessibility.

Article 6 would legalise the circumvention of DRM which interfered with assistive technology in order to render protected material accessible. It was noted in the previous chapter that DRM interferes with software which converts files into more accessible versions of a book, and the introduction explained how DRM prevents direct access to an ebook. In the UK an individual can approach the secretary of state if DRM prevents them from accessing a book they have purchased (Mann

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2006, p.16), but this would be a very time-consuming business, and it should be noted here that when asked by the researcher if they would provide a visually impaired customer who had purchased an ebook with a DRM-FREE copy, Pan Macmillan said they could not guarantee that they would[4].

Article 7 states that licensing terms should not be able to override any exceptions that exist for the benefit of the visually impaired. This really exists to prevent licensing terms being used to allow DRM to block access; at the current time of writing if a protected work is supplied on demand or by licensing terms, in some countries rights holders need not take voluntary action to facilitate access to a protected work, when in other circumstances DRM could have been circumvented (Sullivan 2007, pp.138.ff). It also exists to prevent any limit to Article 8, which would legitimise the movement of files of books and physical copies of books over borders for the purposes of making literature available to the visually impaired, provided that the conditions of Article 4 had been met.

6.3 A for-profit exception

The key part of Article 4 reads:

(c) The rights under paragraph (a) shall also be available to for profit-entities and shall be extended to permit commercial rental of copies in an accessible format, if any of the following conditions are met:

1. The activity is undertaken on a for-profit basis, but only to the extent that those uses fall within the normal exceptions and limitations to exclusive rights that are permitted without remuneration to the owners of copyright,

2. The activity is undertaken by a for-profit entity on a non-profit basis, only to extend access to works to the visually impaired on an equal basis with others,

3. The work or copy of the work that is to be made into an accessible format is not reasonably available in an identical or largely equivalent format enabling access for the visually impaired, and the entity providing this accessible format gives notice to the owner of copyright of such use and gives them adequate remuneration to copyright owners (World Blind Union

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2008).

A memo detailing background discussions of a for-profit exception amongst visually impaired activists reveals that this part of Article 4 is an attempt to provide a stimulus to the switch to EPUB and to the marketing of accessible books in EPUB or DAISY by publishers. The thinking seems to have been that if publishers wanted to ensure that a particular book could not be covered by a copyright exception of the sort enjoyed by organisations like the RNIB, they would themselves have to produce a DAISY version of the book. The other main idea behind this part of Article 4 is to allow for-profit entities like Google to become involved in furthering accessibility[5].

The response of publishers to DAISY as a format is discussed below. Allowing organisations like Google to become involved in promoting accessibility may be more likely and would certainly be valuable. It is perfectly possible, even probable, that Google has scanned books for which publishers do not have an electronic file, and being able to access Google's scanned copy might help visually impaired people access trade books not commercially available as ebooks in this way.

With the Google settlement in its current state how helpful Google might be to the visually impaired in the UK is open to question. If what purports to be a top secret memo leaked from Google is genuine, Google is serious about pursuing its book scan project in Europe and has adopted a strategy of settling in the US so as to be able to pick off European publishers one by one, using legitimate champions of open access and illegal sites like thepiratebay.org as "storm troopers" (Blofeld 2009). However a recent setback in the French courts has strengthened the Federation of European Publishers' hand (Neilan 2009b) so no doubt it will take some time for a settlement to be reached. However even with the Google dispute not yet settled, an exception allowing for-profit organisations to make books available to the visually impaired under exceptions would enable Waterstone's and W.H. Smith to offer DRM-FREE access to their content without having to renegotiate license terms with publishers.

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Introducing this part of the treaty into law, whether as part of a general ratification of the treaty or through other means, is potentially problematic. The background memo mentioned above notes that in their discussion of a for-profit exception, visually impaired activists were worried that some countries have differing definitions of 'profit' and 'not-for-profit'; as this could lead to difficulties at the implementation phase, it was decided not to object if countries opted out of this part of the treaty. What can be said regarding a UK setting at this stage is that exceptions in the Copyright (Visually Impaired Persons) Act specify that organisations using those exceptions have to be not-for-profit institutions (United Kingdom 2002), which means that existing exceptions would have to be redefined. Since the Publishers Association has formally backed the Google settlement, problems associated with introducing a for-profit exception in the UK may well be more cultural or political than legal.

6.4 Problems surrounding DRM and access to ebooks

As noted at the start of the chapter, Articles 6 and 7 of the WBU's treaty would allow for the circumvention of DRM which interfered with assistive technology:
Article 6. Circumvention of Technological Measures.

Contracting parties shall ensure that beneficiaries of the exception provided by Article 4 have the means to enjoy the exception where technological protection measures have been applied to a work, including when necessary the right to circumvent the technological protection measure so as to render the work accessible.

Article 7. Relationship with contracts

Any contractual provisions contrary to the exception provided in Article 4 shall be null and void
(World Blind Union 2008).

This is probably the part of the WBU's campaign which is the most relevant to UK consumers and to a long-term solution to the problem of accessing books, as it would effectively unlock ebooks. Only ebooks offer any real chance of

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simultaneous access to a book for the visually impaired. With every publisher interviewed by the researcher confirming that they intended to digitise their entire catalogue and to reach a point where an ebook would be released either alongside, or shortly after the print edition, the potential ebooks offer those visually impaired people with a computer is hard to overestimate. They could even benefit visually impaired people without a computer if ebooks were increasingly taken up by libraries and made available for loan on suitable hardware.

If one believes that deliberately preventing access by means of DRM is wrong, or even if one believes that DRM's interference with assistive technology is an unfortunate accident but that allowing an exception to circumvent it is too dangerous, then alternatives to an exception have to be provided. There are three worth considering, namely that an alternative to DRM itself could be found, that existing ebooks devices should be made usable by the visually impaired, or finally that media players currently used by the visually impaired should be made capable of processing protected ebooks.

6.4.1 Alternatives to DRM

Every publisher interviewed for the purposes of this research was committed to DRM. One publisher reported personally receiving messages from hackers saying that they could break any DRM that he applied to his books[6]. The most liberal approach to DRM was that of Canongate; the head of their ebooks programme reported that he was considering an approach based on what he termed "social DRM", that is one where people paid up front with a credit/debit card and minimal protective measures were applied to files[7], and Pan Macmillan had made a few books available for download from their website without DRM attached[8].

The most radical attempt to provide an alternative to DRM in its current form has actually emanated from the visually impaired community. At the Frankfurt Book Fair in October 2009, a new partnership was announced between Ray Kurzweil and Baker & Taylor; the plan is to develop software called BLIO ereader, to be given away for free, which will run on desktops, laptops and mobile phones and provide access to an estimated million protected ebooks and a further million unprotected

ebooks (Reid 2009). The ereader is not just aimed at the visually impaired, but has also been designed with sighted consumers in mind. The website contains a point-by-point comparison with other ebooks devices and ereaders, emphasizing BLIO's superior colour image display capabilities; it is an attempt to revolutionise the ebooks industry as a whole (BLIO 2010). The version designed for desktops and the iPhone was scheduled for release in February 2010, with other versions to follow in the spring of 2010 (BLIO 2010).

BLIO has its own proprietary format. The basic idea is that Baker & Taylor will receive publishers' PDFs and generate the BLIO format ebook (Reid 2009). The involvement of a publishing giant like Baker & Taylor should give this project more potential than Read How You Want's attempt to get a similar project off the ground referred to in Chapter Four; after an initial interview with Patricia Ross of Read How You Want on 1st may 2009, the researcher monitored their website to see how many books from major UK publishers became available, but progress has been minimal. It is also not clear how many UK publishers will be involved. The researcher did enquire, but was told by BLIO's Strategic Partnerships Manager, Lisa Galloni, that she was not at liberty to say[9].

Release dates for BLIO have not been met and have continually been put back, but on 29 September 2010 BLIO did finally launch in the US. E-mails sent round a higher education accessibility forum by those who had tried to use the software suggest there were several bugs in the software; people could not get it to run even after it had installed and there were no useful error messages. There was also a curious note in the small print on the download that 'an accessible version will be available for download in October." The researcher is unaware of anyone taking up or using the BLIO format in the UK. It is also hard to avoid a certain scepticism regarding BLIO's ability to ultimately compete with mainstream ebook reading devices already being used by mainstream consumers.

6.4.2 Access to mainstream ebook readers

It has not proved possible to assess every ebook reading device available, and although access journals and relevant user groups have been monitored for any

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developments on any ebook reading device (see section 4.3.1 of chapter 4), the belief underpinning this research has been that the three devices worth examining were the Sony ereader, the iPhone and the Kindle. The emergence of Apple's iPad, and the news that it would arrive in the UK in April 2010, also meant that this had to be assessed as a potential source of access.

These devices seemed to be the ones with backers rich enough to give them a realistic chance of survival in what many have come to term the ebooks device war. That a device should have the backing of a powerful and wealthy organisation is important for another reason. Making an ebooks reading device usable by the visually impaired is not cheap; although adding the capacity to generate speech output is relatively easy to achieve, adding the ability to change font size when manipulating menus is a much larger job[10], and the deaf-blind would only be able to use a mainstream ebooks device which had been given the capacity to communicate with a braille display.

The RNIB did raise the issue of the accessibility of their ereader with Sony[11], and the researcher personally contacted Sony asking if they had any plans to make the ereader usable by the visually impaired. Both contacts led to no clear answers from Sony.

The researcher did carry out a small hands-on assessment of the version of the ereader which is not touch screen with the aid of a sighted friend. Although the buttons were small, they were no smaller than those on products sold by the RNIB (for example the Olympus Recorder range). It was possible to distinguish one button from the other reasonably easily, and the menu structure seemed tolerably intuitive. However Sony seems to be heading down the route of touch screen technology which may well limit its potential for accessibility, at least for the totally blind. It is interesting that the Sony ereader has not featured in any of the journals and periodicals targeted at the visually impaired. Although the ereader should not be ruled out as a potential source of access, at least for those with some vision, it may turn out that the ereader was of relevance to those with no vision only inasmuch as it strengthened belief in the ebooks market and set a trend towards the adoption of Epub as the preferred ebook format of the main UK publishers.

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The iPhone is a more interesting case. Apple has put its screen reader, VoiceOver, on to the iPhone, and since VoiceOver is Apple's own screen reader and is built in to its Leopard system, there is the likelihood that Apple will continue to develop it. The idea is that a user can move their fingers over the screen without triggering off any applications. To activate a control the user has to double tap the relevant icon.

The researcher looked at the iPhone at the 2009 Techshare conference and found it unusable. Somehow the weather forecast application was activated, without the researcher even realising that he had double-tapped; in fact the researcher ended up being confused whether a double tap might simply mean pressing harder than usual on the screen. The prospect of having to remember whereabouts on the screen each icon was and mastering the gesture to activate the icon felt too much like fighting technology.

That said, visually impaired people do use the iPhone, and enthusiasts have set up a Google mail group which currently has 408 members (Google Groups 2010). Jermolina (2009) reported finding a small number of iPhone users in the UK, but she also reported finding what she termed a "certain level of anger" against Apple because of what was perceived as their tardiness in making the iPhone usable. In the researcher's view this anger, if it exists, is probably not widespread, or at least no greater than that felt towards the IT industry in general; Jermolina's (2009) findings need to be offset by the fact that Apple did make the iPod Shuffle fully accessible and that this is now a device regularly used by the visually impaired to listen to audiobooks.

The iPhone should not be ruled out altogether, even if it is likely to be a way of accessing books only for what the head of accessibility at the RNIB humorously referred to as "the blind geeks"[12]. There are important technical issues to overcome, such as the fact that VoiceOver and magnification software cannot be used simultaneously (the researcher knows of two people who like to use both and switch between the two as the mood takes them). There is also the fact that it is not just the iPhone itself that has to be made fully accessible, but the kindle application for the iPhone; the part of Amazon's blog on the Kindle which deals with accessibility

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contains an entry from someone who tried using the text magnification software but found he needed to use text-to-speech as well. There is the further question of the accessibility of applications for individual books (Penguin believed that having separate applications for each book to be an unsustainable way of continuing[17]). Whether this tendency continues or not, from an accessibility point of view these applications are likely to be somewhat hit and miss. For all of these difficulties Apple have taken considerable steps to make the iPhone accessible. In the summer of 2010 compatibility with Braille display devices was built in, and the researcher has found blind people using the iPhone with Bluetooth keyboards, thus getting round the problems associated with touch screen technology. Two members of the user group for visually impaired iPhone users mentioned above have also told the researcher that they have used the iPhone to access DRM-protected ebooks.

What about the iPad? The literature review does feature a small article in the RNIB's periodical *Access IT* which was very enthusiastic about the iPad, because of it's connectivity with a keyboard, its variety of fonts and its enhanced zoom capabilities. When the researcher tried using the iPad at the 2010 London Book Fair results were disappointing; the use of the keyboard is limited (it is not like tabbing round a dialogue box in Windows), and although results of 'swiping' to use the touch screen facility were better than on the iPhone, the researcher still felt sceptical. At a seminar on Apple technology put on by the British Computer Association of the Blind on 16 July 2010 which the researcher attended, one visually impaired person gave a presentation on the iPad; he was enthusiastic, though much of his presentation was on matters other than ebooks and he did finish by saying that he would switch to the iPhone, largely because the iPhone could do everything that the iPad could do and was smaller and lighter. An important point to emerge from this seminar was that Apple was increasingly building accessibility into its products, and the iPad's compatibility with braille displays was noted.

For those visually impaired people who cannot get used to touch screen technology or who cannot afford an extra Bluetooth keyboard to go with one of Apple's devices, the Kindle 2 remains the most promising mainstream ebook reader from an accessibility point of view, notwithstanding the text-to-speech dispute. Interestingly a lawyer with long-standing experience of copyright and multimedia issues whom

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the researcher consulted on this topic was of the opinion that even if publishers chose to switch off the text-to-speech for their books, the visually impaired would be in their rights to take measures to turn it back on again without their permission; his reasoning was that if the text-to-speech function's rendering of a book was regarded as a transient copy of no economic significance, then publishers had no rights over it, whereas if the copy were regarded as economically significant then it would be classed as rendering a book accessible to the visually impaired owner of a Kindle under the Copyright (visually impaired person's) Act. He did say this was not official legal opinion[13] and a much more sensible solution than that will need to be found. The official view of the Publishers Licensing Society on the matter is that in order to activate the Kindle 2 text-to-speech read out loud function the vender needs to own the volume rights for the ebook and the electronic rights for audio output[14].

The researcher did carry out a hands-on assessment of the Kindle 2 with the assistance of a sighted friend and has monitored comments relating to accessibility on the Kindle blog. From a purely personal point of view the researcher found it to be the easiest to use of the devices looked at as part of this project. The use of a raised joystick to cycle through menus seems a good idea and reminiscent of the Nokia phone range that became usable by the visually impaired when screen readers like Talks were developed (those who used such phones would feel familiar with this feature of the Kindle). The buttons round the side are less easy to use, mainly because the buttons do not have a sharply defined edge which means that it is not easy to tell where one ends and the next one starts. A person who has lost their sight through diabetes sometimes also loses a degree of sensitivity in their hands, and they might press a bit harder than usual when trying to distinguish one button from another, thus unintentionally activating a function.

There are two problems with the text-to-speech function built into the Kindle in its current form; first it cannot be manipulated because it reads from the top to the bottom of the page only and a user cannot scroll down the screen a line or sentence at a time. The other problem is that it seems to consume a lot of the battery power. The researcher also found that the quality of the text-to-speech voice was not significantly superior to existing screen readers. When the researcher tried

experimenting with the font magnification in its current form, it became apparent there were problems reading PDFs; after scrolling through ten pages the device had got so far behind itself that it crashed. There are a handful of positive comments about the accessibility of the Kindle from visually impaired people on Amazon's Kindle blog, though all those leaving comments have some residual vision.

The head of accessibility at the RNIB did report that he would be regularly raising accessibility issues with Amazon throughout 2009, and indeed there are questions from him at regular intervals on the Kindle blog. However he did say that Amazon was not an easy company with which to build productive relations, and he had struggled to get clear answers to his questions[15]. Amazon did set up an email user group called blind-interest to which the researcher subscribed, but nothing was announced on the group for a long time.

Nothing really seemed to happen regarding the accessibility of the Kindle until a legal victory achieved by the American National Federation of the Blind (NFB). Arizona University introduced the Kindle 2 as a means of accessing the curriculum which caused the NFB to file a complaint with the Department of Justice on 25 June 2009, arguing that this was in breach of the Americans with Disabilities Act (Danielsen 2009). On 6 December 2009 Amazon issued a press release stating that they intended to make the Kindle 2 what they termed "a breakthrough device" for the visually impaired (Amazon 2009). Since the Department of Justice (2010) ultimately upheld the NFB's complaint, if Amazon wishes to penetrate the textbook market it will have to deliver on the aim stated in its December 2009 press release.

Amazon has taken some steps towards achieving this by enabling the menu functions to be accessed by audio. This is certainly an important development and at least one member of the British Computer Association of the Blind with some residual vision e-mailed the user group to say he had bought a Kindle and to give his impressions on 8th and 19th October. These were largely positive, though his enthusiasm mainly revolved around the access to newspapers it provided. He reported that the text-to-speech function could sometimes interfere with the navigation audio output.

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In march 2011 Amazon sent word round the blind-interest group that they had developed what they termed an 'accessibility plug-in', which would allow a visually impaired person to download a book and read it on their PC. However the plug-in was only released in the US, though e-mails sent round the British Computer Association of the Blind's user group mentioned a Sendspace link where the software could be downloaded. At the meeting of the Right to Read Alliance on 29 March 2011 attended by the researcher, the new head of the Alliance, Peter Osborne, told the meeting that the plug-in had bugs in it, but that he had used it to download books from the Kindle bookstore and had then transferred the books on to a Kindle. An interesting aspect to the plug-in is that if it is used on a PC, screen readers such as Jaws can read a Kindle book even if the ebook's text-to-speech is turned off. However a significant drawback from the Kindle from a blind person's perspective is that the audio output of the Kindle device has not been made capable of reading webpages, so it is not possible to browse the Internet or the Kindle Bookstore with the device.

However accessible one or other of the devices discussed above eventually turn out to be, there will always be the issue of cost. All the devices currently cost more than £100. Given the cost of the media players designed for the visually impaired which they will have already purchased, many are likely to be cautious about spending money on a device which only seems to read books. Having paid a lot for their existing media players, they will naturally want accessibility to be built into those devices too.

6.4.3 Adapting media players designed for the visually impaired

At the start of this research it seemed very unlikely that the media players currently being used by the blind would be adapted to support mainstream ebook formats any time soon. The issue was not primarily one of hardware development. Existing DAISY players and other portable computer-like devices used by the visually impaired had the hardware they needed to support ebooks; rather the problem was the costs associated with purchasing licensing keys needed and with the necessary software development[16]. The internal report on ebooks referred to in the literature review (that by Cryer issued in 2008) noted the existence of nine ebook formats,

and it was simply not feasible to try and make all these formats accessible, particularly since there was no way of knowing which formats were ultimately worth pursuing.

There were signs of possible change in 2009. Humanware, a company which manufactures braille note-takers, DAISY players and assistive technology for the deaf-blind, told the researcher in response to an enquiry that their development team had contacted Amazon regarding the feasibility of their products supporting the proprietary format files used by the Kindle, and they also confirmed that they were investigating supporting the Epub format, though they were not very forthcoming with much detail[17]. In January 2010 they restated to the researcher that their products would soon support the Epub format[18]. However despite these two assurances, at this writing Humanware's products do not support even unprotected Epub.

A key obstacle has been cost, particularly when it comes to building accessibility into mobile phones used by the visually impaired. Iansyst, a company which develops products for those with dyslexia but who were also aware of the importance of ebooks to the blind and severely sight impaired, were asked for £69,000 by Adobe for the keys needed to enable their Capturatalk package to process Adobe Digital Editions books. In fact Adobe dropped the charges, but the attempt to make Iansyst's product (mostly mobile phones) capable of processing protected Adobe ebooks failed because Adobe's engine took up too much of the phone's processing power; Iansyst have managed to build a PDF reader, Foxit, into their assistive software at some expense, but it cannot process files with DRM attached[19].

The other UK-BASED supplier of mobile phones with assistive technology on them, Sight and Sound, reported that they did not envisage their phones and screen reader Talks being able to access protected ebooks any time soon because of what they termed compatibility issues, and in fact they were much more worried about obtaining mobile phones with suitably tactile controls rather than building in access to protected ebooks[20]. Code Factory, the other main provider of mobile phone assistive technology, gave no response when asked if they had plans for accessing

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ebooks.

At Techshare 2009 Richard Orme told the researcher that their were plans to enable a screen reader called Non-visual Desktop Access (NVDA) to support access to protected Adobe Digital Editions files, and since NVDA and Jaws have certain critical design features in common, Jaws, probably the most commonly used screen reader, should be capable of accessing protected files too. The work was due to be completed sometime in 2010. Another development that seemed to ensure that progress would be made on accessing DRM-protected Adobe ebooks is another legal victory won in the US by the Reading Rights Coalition resulting in Los Angeles Public Library refusing to buy any more ebooks with Adobe Digital Editions attached because DRM excludes the visually impaired from Access, which does seem to have concentrated minds somewhat in Adobe (Mccoy 2009). However despite all this activity and these two more promising developments it later emerged that Adobe were looking around for an accessibility developer and it now appears that full access to the ebook for the visually impaired will not emerge till some time in 2011[21].

How effective this promised access turns out to be remains to be seen, and whether it really removes the need for an exception to bypass DRM is questionable (this is dealt with further in chapter 9). Here it needs to be noted that unless access is built into every form of assistive technology some visually impaired people will miss out. For example though Jaws might process protected Adobe Digital Additions ebooks, other screen readers like Window-eyes may not, and it is no small matter for a visually impaired person to have to switch to or invest in a different piece of assistive technology, not least because of the significant outlay of money and the process of familiarising themselves with a new package. It also needs to be noted that in order to facilitate access for the deaf-blind ebooks will have to be made to interact with Braille display technology. It is a distinct possibility that producers of mainstream ebooks reading devices will be nervous of this, not least because some Braille displays do not only display text but can capture and store it; if the Kindle 2's text to speech is controversial, then the possibility of storing an ebook in a Braille display device might be seen as controversial as well.

6.5 Cross-border transfer of accessible books and files

Article 8 of the WBU's treaty provides for the cross-border transfer of accessible files and literature, provided the guidelines laid down in Article 4 of the treaty have been met:

> Provided that all the relevant conditions of Article 4 are complied with in the exporting and importing countries as appropriate, the following shall be permitted without the authorization of the owner of copyright:
>
> 1.   the export to another country of any version of a work or copies of the work that any person or organisation in one country is entitled to possess or make under Article 4; and
>
> 2.   the import of that version of a work or copies of the work by a person or organisation able to act under the provisions of Article 4 in the other country
> (World Blind Union 2008).

Article 8 would allow agencies producing literature for the visually impaired in other countries to make their catalogues of popular fiction and non-fiction available to UK customers. The WBU survey mentioned at the start of Chapter Four found that Recording for the Blind and Dyslexic, based in the US, has a catalogue of 50,000 books which a change in copyright law would make readily available to the visually impaired in the UK. Bookshare.org would be freed up in a similar way.

It would not only be visually impaired consumers who would benefit from Article 8; organisations who actually produce the literature would benefit because the ability to share files over borders would cut out a lot of the duplication of effort and waste of money resulting from organisations in different countries transcribing the same book.

It is perhaps worth noting at this point that it is doubtful whether Article 8 would legitimise the sharing of books over borders between individuals (or even, for that matter within borders). In the UK the law states individuals can share books with

each other only if the physical copy travels with the electronic copy (United Kingdom 2001). This might seem a strange provision in some respects as nobody will ever keep to it, and it can only exist to enable the government to claim that it was balancing the need of the visually impaired to share books with a token gesture towards rights holders concerns over security, but it does reflect the caution with which laws in this area are drawn.

The movement of literature over borders has seen progress. A separate stakeholder platform dealing with matters at a European level has reached the basis of a settlement. The European Commission has said that European single market rules mean that the free movement of hard copies of accessible books over borders within Europe is perfectly legal, despite protestations to the contrary by organisations representing rights holders[22].

Meanwhile a memorandum of understanding has been drawn up to the effect that the transmission of files over borders within Europe between trusted intermediaries working on behalf of the visually impaired would not be a breach of copyright. The researcher was involved in the evaluation of this memorandum and commented to the chief negotiators that the memorandum text was highly restrictive on what organisations representing the visually impaired could do and that, by stressing how difficult a challenge publishers face building accessibility into their processes, it left the publishing industry free to not seriously engage with accessibility. One particular concern was that beneficiaries of the provisions of the memorandum had to have as their primary purpose the production of literature for the visually impaired (hardly the case with the RNIB). Negotiations on the memorandum nearly failed over the definition of reading disability, with the publishing industry conceding the inclusion of dyslexia but refusing to allow the inclusion of any reference to learning disabilities[23]. A compromise solution has been reached to the effect that learning disabilities will not be included for now but the memorandum will be reviewed again after a year[24]; it was signed in September 2010.

As well as the development of the memorandum of understanding, plans were drawn up for a two-year pilot project designed to test the exchange of files between nominated organisations in different countries, both inside and outside of Europe

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(Standing Committee on Copyright and Related Rights 2009). This project started in April 2010, but in an e-mail dated 15 April 2011, one of the chief negotiators told the WBU copyright working group that a decision had been taken by the WBU and the European Blind Union (EBU) to suspend its involvement in this project. The e-mail cited burdensome and unfair licensing terms such as unlimited liability for the loss of a publisher's file and stated that some industry lobbyists were 'unfairly using our involvement in the project to undermine our treaty proposal'.

It is unlikely however that this will stop the WBU lobbying for a treaty, as memoranda of understanding can be withdrawn at any time, and there are wider political sensitivities amongst the visually impaired community with activists in Europe being unwilling to abandon those in developing countries. Indeed the e-mail mentioned in the last paragraph details extensive work in the European Parliament undertaken by the WBU and EBU to muster support for the treaty.

6.6 The relevance of DAISY and going beyond exceptions

Thus far the debate has had to be framed within the context of the arguments over copyright; even ebooks will be affected by the copyright framework that ultimately comes about because of the disputes surrounding DRM, especially if one takes the view that ebooks reading devices are really a form of DRM. What about other alternatives such as publishers marketing DAISY and attempts to produce workflows in publishing houses capable of simultaneously generating universally accessible books?

In section 5.3 it was noted that one of the reasons for having a for-profit copyright exception was to try and stimulate a market in DAISY books by allowing publishers to take a book out of the realm of exceptions by making a DAISY, and therefore universally accessible, book commercially available. At the start of this research Stephen King and Peter Osborne, who head up the DAISY Consortium in the UK did hope that DAISY could make a breakthrough into the mainstream. They mentioned that some government departments had produced some public information in DAISY, and they made much of the fact that George Kerscher, the overall head of the consortium, had been put in charge of the development of the

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Epub standard; their hope was that a point would come where the DAISY standard and the Epub standard were identical, and that it would therefore cost publishers no effort to generate DAISY files[25]. It was also noted in the literature review that some scientific journals in the US, which had made the switch to XML production, were looking at making DAISY versions of their journal available after it had been demonstrated that DAISY could represent graphical information adequately (Gardner, Bulatov & Kelly 2009, pp.314-319).

However, it could be argued that government departments are not really a true test of DAISY's ability to survive in a commercial world because government departments will have equal opportunities policies in their communication activities which will not apply in a more commercial setting. Also despite potential success for DAISY in the journal world, in the book world things may well turn out differently, even though Epub has become the most popular format for ebooks in the UK after Sony's decision to sell only ebooks for use with its ereader.

None of the publishers interviewed for the purposes of this research were interested in generating or marketing DAISY books. All the trade publishers interviewed were still PDF-BASED operations, as opposed to XML which is ideal for DAISY. Graham Bell of HarperCollins was adamant that generating content in XML-FIRST operations which support DAISY production was detrimental to publishers' profits[26]. Penguin had begun an ambitious project to redesign their workflows because of their belief in the eventual profitability of ebooks and they were making a promotional video with JISC TechDis to encourage other publishers to do the same[27], and discussions at the stakeholder platform at WIPO have led to EditEur starting a three-year project aimed at rolling out guidelines on how publishers could build a technological framework which would allow the production of accessible books[28], but without a legal requirement to change their workflows or a sudden change of opinion on the potential market for accessible formats, it's not easy to see why publishers would rush into any change. Richard Orme told the Right to Read Alliance meeting on the 18th March 2010 that some alliance members have become more cautious about where DAISY as a format might fit into the accessibility eco-system, and had turned their attention to education.

While DAISY as a format is meeting with very limited success in the mainstream, some in the consortium are beginning to think more broadly about the Consortium's role and about the role of exceptions generally. Indeed some in the WBU are beginning to do the same. On several occasions throughout 2009 the researcher has met with the overall head of the Global Right to Read Campaign and the International Campaigns Manager of the RNIB to discuss the progress of the treaty. The researcher had wondered whether the WBU was absolutely committed to the notion of exceptions, or whether they were using the threat of gaining enhanced exceptions as a means of achieving some leverage over the industry, in other words to have some bargaining chips when eventually some legal framework is decided upon. Both told the researcher that while the treaty was a genuine reflection of the visually impaired community's concerns over copyright, they were not so fixed on the mechanism of exceptions as to turn down a better offer if it came along. They also said that the slogan "same book, same time, same price" was intended to be an attention-grabbing, eye-catching headline for public relations purposes (they were fully aware that the costs of producing books in different formats are not identical).

Trying to put in place a legal framework which allows third sector producers of accessible versions of books the freedoms they need, while not undermining the notion of visually impaired people as consumers of ebooks, is a complicated matter. If ebooks do become accessible to visually impaired computer users in some way or other, should organisations like the RNIB be able to supply a title to any blind person, including someone who can access the ebook, or only to those who cannot? After all, they cannot reasonably be expected to know the difference between the two at the point when they receive a request for a title. Again, if a publisher delays the release of an ebook to preserve hardcover sales and the RNIB produces an audio copy in the meantime, might that act as a disincentive to visually impaired people buying the ebook? In this scenario should the RNIB be allowed to circulate the audio version to all customers only until the publisher releases the ebook?

Pondering questions like these led the researcher to speculate on the idea of using DAISY rights to bypass complexities surrounding audio rights, and even using DAISY as a catch-all accessibility right to offer the industry. The enhanced audio navigation features that DAISY contains and the facility to manually search text it

can offer users seemed to justify the notion of DAISY being regarded as a distinct format.

Linked to this idea was a notion which emerged out of research into disputes on biological patents which, at the suggestion of the Director General of WIPO, the researcher was asked to conduct by the WBU. This research into biological patents revealed disputes with broad similarities to those surrounding copyright and access to literature. Developing countries felt that the intellectual property system used by the multi-national corporations in the seed industry denied them fair remuneration for products developed using local peoples' traditional knowledge and in some cases even excluded them from access to their own local fauna; consequently they were using global legal instruments like the Convention for Biological Diversity to campaign at WIPO and at other global organisations to try and limit the scope of biological patents. As a compromise the Indian Government had enacted a law which cleared the way for farmers to register the plants growing around them in a database and to be declared the holders of intellectual property in the plants they registered (Ragovan & O'shields 2007). In other words, they tried to co-opt the norms of the intellectual property system to work for them instead of trying to operate on a basis of exceptions.

So, using DAISY, could organisations transcribing accessible literature, as trusted intermediaries, be designated the holders of the intellectual property in their stockpile of books? If so, then they could distribute them to other visually impaired people without the need for an exception to allow this.

When the researcher put the idea of DAISY rights to the UK representatives of the DAISY Consortium, they said that as part of the stakeholder platform activity at WIPO, they had considered the idea of the consortium becoming an aggregator of accessible books, in effect offering the industry what they termed "an accessible copy" right. Their concern was that if DAISY appeared on mainstream media players, it would undermine the notion of DAISY as a medium for the visually impaired and, by extension, as a medium which could be used to facilitate copyright exceptions or function as an 'accessible copy' right. They went on to say that there was a possibility that DAISY could be built into a mainstream media player, but

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they were not at liberty to say any more on the topic[29]. At this writing the nearest
DAISY has come to being built into mainstream players is a DAISY reader being
put into a screen reader which enables the visually impaired to use mobile phones.
The consortium is still very interested in the idea of becoming an accessible ebooks
aggregator based around notions of a global accessible book store and a global
internet library of accessible books, but they have not done much development work
on the idea yet[30]. Presumably these ideas will be addressed in real earnest as work
progresses on who should be designated as a trusted intermediary and what exactly
a trusted intermediary should be. The European stakeholder platform has begun
work on this, and no doubt discussions will continue at WIPO. At this time the
RNIB are concentrating simply on being designated a trusted intermediary rather
than a holder of intellectual property[31], though interestingly UK university librarians
have shown some interest in the idea of institutions becoming holders of intellectual
property in the books they have made accessible[32.]

6.7 Conclusions

The text of the WBU's treaty looks well-balanced. Its provision for notice to be
given to rights holders and for remuneration to rights holders in return for the
freedom to undertake commercial activity shows that it is not intended to create a
general free-for-all for charitable organisations. The response of organisations
representing rights holders is hard to assess because they have not responded to the
treaty text point by point. Broad remarks like still being in fact finding mode or
generally eating away at copyright are not an adequate response. As noted at the
start of the chapter, UK publishers have now been given stronger methods of
combating piracy, so attempts to restrict the movement of accessible literature on
these grounds look unjustified.

As the fieldwork done on ebooks shows, saying that accessibility issues can be dealt
with by securing access to a device like the Kindle is inadequate as well, because
they seem to assume a one-size-fits-all to accessibility. None of the mainstream
devices can meet all accessibility needs, and development work will need to
continue on several fronts, particularly making existing media players capable of
processing protected ebooks. The fact that Braille connectivity does not get

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mentioned in announcements promising accessibility means that the needs of the deaf-blind are in danger of being ignored.

Although some visually impaired people will find their needs met by accessing ebooks, some, particularly those in the lower income bracket and who have other disabilities or who are elderly and without access to a computer will not. Even if access to ebooks were guaranteed from a given date, the legacy stockpiles of books built up by organisations like the RNIB will be an important source of access and need to be kept free to move. The industry's relative lack of interest in audio and its total lack of interest in braille mean that civil society organisations will have to be involved in helping the visually impaired access literature for a while yet. This means that it is all the more important both to lessen the burden on them by making their role less complicated and by having public libraries make a greater contribution to accessibility.

DAISY as a format seems unlikely to make a breakthrough into the mainstream book market, at least in the UK. However the fact that the secretary of the consortium has effectively become steward of the epub standard offers hope for progress, particularly if the project designed to promote workflows that allow the production of universally accessible books in publishing houses can gain real momentum. It is obviously too early to judge the effectiveness of this project.

This concludes the description of the fieldwork undertaken on the topic of access to trade books and the disputes surrounding the production and distribution of accessible literature. The next chapter looks into the area of access to books in higher education.

Endnotes

[1]. Anonymised lobbyist at WIPO e-mail to Guy Whitehouse, 11 November 2008.

[2]. Anonymised lobbyist e-mail to Guy Whitehouse, 21 December 2009.

[3]. Anonymised lobbyist e-mail to Guy Whitehouse, 11 November 2008.

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[4]. Guy Whitehouse telephone interview with Michael Bhaskhar, head of Pan Macmillan's ebooks programme, 12 January 2009.

[5]. Memo of discussions between World Blind Union activists and Knowledge Ecology International e-mailed by Manon Res to Guy Whitehouse, 12 November 2008.

[6]. Great war artists.

[7]. Guy Whitehouse telephone interview with Dan Franklin, head of Canongate's ebooks programme, 6 April 2009.

[8]. See note 4.

[9]. Lisa Galloni, Strategic Partnerships Manager at BLIO, e-mail to Guy Whitehouse, 21 January 2010.

[10]. Cryer, H., 2008. Review of ebook players, formats and service providers, E-mailed by Sarah Home, Accessible Information Development Officer at the Royal National Institute of Blind People, 20 November 2008.

[11]. Guy Whitehouse informal conversation with Richard Orme at the Techshare 2009 conference, the Excel Centre, London, 17 September 2009.

[12]. See note 11.

[13]. Alexander Ross e-mail to Guy Whitehouse, 21 May 2009.

[14]. Guy Whitehouse informal conversation with Dr Alicia Wise at the London Book Fair, 22 April 2010.

[15]. Guy Whitehouse telephone interview with Richard Orme, head of accessibility at the Royal National Institute of Blind People, 31 March 2009.

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[16]. Guy Whitehouse interview with Stephen King and Peter Osborne, UK representatives of the DAISY Consortium, Royal National Institute of Blind People, Peterborough, 21 February 2009.

[17]. Alan Davis of Humanware letter to Guy Whitehouse, 31 January 2009.

[18]. David Godman of Humanware e-mail to Guy Whitehouse, 25 January 2010.

[19]. Guy Whitehouse telephone conversation with Neil Milliken of Iansyst, 24 January 2010.

[20]. Guy Whitehouse telephone conversation with customer services department of Sight and Sound Technologies, 20 January 2010.

[21]. Guy Whitehouse informal conversation with anonymised DAISY Consortium representative, 11 June 2010.

[22]. Anonymised lobbyist, e-mail to the European Blind Union Copyright Working Group, 4 December 2009.

[23]. Guy Whitehouse informal telephone conversation with anonymised lobbyist, 15 June 2010.

[24]. Anonymised lobbyist, e-mail to the European Blind Union Copyright Working Group, 4 December 2009.

[25]. See note 16.

[26]. Guy Whitehouse telephone conversation with Graham Bell, Digital Director at HarperCollins, 24 April 2009.

[27]. Guy Whitehouse telephone interview with Brad Dawson, head of Penguin's ebooks programme, 13 November 2009.

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[28]. McNaught, A., 2010. Internal report on the ebooks working group of the Right to Read Alliance, e-mailed to group members, 17 March 2010.

[29]. See note 16.

[30]. George Kerscher, Secretary of the DAISY Consortium, e-mail to Guy Whitehouse, 28 January 2010.

[31]. Anonymised lobbyist e-mail to Guy Whitehouse, 19 February 2010.

[32]. Linda Robertson of Southampton University e-mail to Guy Whitehouse 26 November 2009.

Chapter 7 Access to the higher education curriculum and the law

This chapter begins by assessing the accessibility landscape that exists in higher education and then examines the way in which stakeholder relations have developed throughout this research project. It then goes on to consider arguments over whether publishers should be made to carry greater responsibility for accessibility. To do this it uses data gained from interviews with academic publishers and with Alistair McNaught, a senior manager at JISC TechDis who has been mostly responsible for trying to influence practice in universities and publishers. It also draws heavily on the results of a questionnaire circulated to librarians and learning support staff in all 109 UK universities; this questionnaire asked for information on training that staff had received, best-practice guidelines, issues of cost and resource, experiences of dealing with publishers and opinions on whether the law should be changed to place greater responsibilities on publishers. Responses were received from 60 staff in 55 institutions, which equates to a response rate of just over 50%. The data provided by this questionnaire is further informed by how two visually impaired students experienced access to the curriculum and by anonymised details of lawsuits brought against universities by other visually impaired students

Finally developments which took place after the completion of this fieldwork are noted and discussed. These include policy developments in publishing houses, an attempt to construct a business model which would make the production of accessible material in higher education financially self-sustaining, and a new legislative development which will come into force on 1st October 2010 and which some advocacy groups hope will place an obligation on publishers to build accessibility into their processes.

7.1 Relevant legislation

The Special Educational Needs and Disabilities Act (SENDA), otherwise known as Part IV of the Disability Discrimination Act (DDA), places an obligation on universities and other educational institutions to make reasonable adjustments to

enable visually impaired students to access the materials they need to complete their course of choice (United Kingdom 2001). The requirement is unambiguous and not open to dispute.

No such clarity exists regarding any legal responsibilities publishers may have on this matter. The Publishers Association (2007) issued guidelines which refer to Part III of the DDA, which forbids discrimination against the visually impaired by those providing services to the public. The guidelines state that this section of the Act is primarily aimed at shops, restaurants, hotels, schools and libraries, but goes on to say that providers probably includes providers of goods and services to the public, and this would bring publishers into the ambit of the DDA (Publishers Association 2007). Actually this is questionable, as manufacturers of goods such as radios and televisions are not yet covered by the DDA, so if publishers were put in the category of manufacturers of goods they would not be covered.

The uncertainty arises from the way the Act is worded. The relevant part of the Act is Section 19, which sometimes refers only to providers of services and at other times to providers of goods and services. Instead of specifying exactly who is covered, Subsection 3 of Section 19 gives examples of the sort of thing that is covered, the closest to publishers being 'access to information services' or 'the services of any professional trade' (United Kingdom 1995), so the Act could be interpreted in various ways. When the researcher raised the issue at the meeting of the Right to Read Alliance on 14th September 2009, Richard Orme said that the RNIB had thought of bringing a DDA suit on the matter, but that the legal advice they had received had deterred them, because they had been told that although they might win, the consequences of losing were too serious. Without case law, or further clarifying legislation or regulation, one cannot say.

One other piece of legislation which needs to be mentioned at this point is the United Nations Convention on the Rights of People with Disabilities, which the UK has ratified and is bringing into law. Article 21[c] directs governments to urge private entities to provide information in accessible formats, and Article 24 enshrines the right of visually impaired people to the same level of education as their sighted counterparts (United Nations 2006). Again exactly how this will work

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out in UK legal practice is not yet clear as the Convention has only recently been ratified and is still in the process of being passed into law, but the fact that the Accessibility Action group's newsletter refers to the Convention suggests that the more far-sighted members of the industry are aware that there are implications for publishers. However the vague nature of all this contrasts with the more directive approach taken in the NIMAS initiative in the US; as stated in section 2.2.1 of chapter 2, this initiative, underpinned by legislation, requires publishers to place a file in a central repository conforming to a variation of the DAISY standard so that an accessible version of the book can then be generated.

7.2 The accessibility landscape and stakeholder relations

There is no way of expressing the amount of access to books that visually impaired students receive as a percentage. One respondent to the questionnaire circulated to librarians and learning support staff, no. 11, did attempt to assess their efficiency in terms of a percentage; they claimed that students got access to the material they required a week in advance 90% of the time. Respondents 9 and 42 reported that they were usually able to achieve a high accessibility rate, and respondent 30 said they could also get reading matter to a student a week early provided they received their reading list early enough in advance, though since that happened only occasionally students at this university must experience delays some of the time. Respondent 45 reported that a social work student obtained access to only 70% of the books required. Alistair McNaught of JISC TechDis expressed the view, based on his experiences of dealing with support staff and publishers, that the level of access to books provided to visually impaired students equated to what he termed a minimal diet of core nutrition[1].

The percentages in the preceding paragraph and Alistair McNaught's comments are interesting but they are more illustrative than definitive. There is no equivalent in higher education of the 4.5% figure that is quoted in the previous chapters. Instead most of the data on the accessibility landscape and stakeholder relations in higher education resulting from the fieldwork outlined above focuses on the shortcomings of the system and revolves around the delays students face in accessing material from books, the pressures faced by support workers when making material

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accessible, issues of cost and how cooperative or uncooperative publishers are when requested to supply an electronic copy of a book. Before looking at whether trying to obtain electronic copies of books from publishers has improved matters, issues arising from support workers' more traditional role of transcribing material are considered.

7.2.1 Staff training

Training is important, partly because it enables support workers to exercise quality control procedures, and partly because the higher the technology base a support worker starts from, the more students they can support and the more time-effective their working methods can be.

Most of the data on staff training comes from the questionnaire circulated to librarians and learning support staff, but before turning to that data it is worth noting what emerged concerning two universities which did not respond to the questionnaire. On 20 November 2009 the researcher responded to an e-mail which was sent round a librarian's Jiscmail user group by someone in a Scottish university asking for guidance on what to do regarding helping a student requiring alternative formats. It asked for guidance on all aspects of the work, from institutional policies, creating the alternative format version of the work itself and on how to deal with publishers. Since the university in question is a multi-site university, one should not draw conclusions about the situation across the whole of that university, but it does show that there are some institutions, or at the very least some sites in multi-site universities, where staff are utterly unprepared and untrained. They had clearly not heard of JISC TechDis's work. Also they either did not know who to ask in their university (otherwise why email the group), or else they had asked the relevant person in their university and received no useful advice, or again it might even have been the case that there was nobody in their university they could ask.

How a lack of training can affect a student came to light when the researcher contacted a student at a second university which did not respond to the questionnaire through the e-mail user group of the British Computer Association of the Blind on 16 April 2009. He told the researcher:

> This year support has been awful. I've had in total 8 support providers, I
> had to totter down to the Library myself and politely demanded after
> being on the course 6 weeks my books in electronic format. I failed two
> out of the three module exams I took in January. Previously I had an
> excellent provider who had a PHD in Engineering, was very empathetic
> and went above and beyond in his role which I put down to part of the
> reason why I'm still there. When he left the wheels seemed to come off
> the car. … I'm the only blind student there at the moment and I am the
> first over here to go through the course. A fact that I have been reminded
> when I dare complain[2].

Since the student in question got 97% in a Java class it seems unlikely that this is a case of an inept student blaming the university for his failures, especially as he was quite honest about how his lack of knowledge of Braille had held him back. What emerges from this experience is a lack of communication on the part of staff in the university in question (he had to flag up he needed alternative formats instead of being asked), the lack of quality control regarding the helpers employed, and a failure on the part of his tutors to think ahead and consider work-arounds for parts of the course which were undoable in their current form.

Returning to data from the questionnaire, two respondents reported that they had received substantial, formal training. Respondent 11 referred to several weeks of training in scanning and editing from her boss and to two 3-day courses in DAISY which had taken her to advanced level in DAISY technology. She was also taking a NVQ in grade 2 Braille. Respondent 9 also had a large amount of editing and proofing experience, and had consulted guidelines by the RNIB, and also had a Btech in grade 2 Braille. Apart from respondent 18, who used to run a dedicated Braille unit attached to his university, they were the only ones to formally put on record that they knew Braille. Respondent 1 did not refer to Braille, but had been trained in the most flexible and advanced DAISY-production software EasyConverter, and respondent 30 had begun to explore DAISY technology.

Apart from that training seemed to range from the very patchy to non-existent, and to leave people unprepared for the task facing them. Respondent 57 received half a day's training in a package which enabled print to be scanned and stored to a text page, only for her first visually impaired student to ask for their material to be provided in Braille. "learnt on the job" was a not uncommon phrase, and quite often people simply replied "none".

People who had had no formal training had trained others, as respondent 19 quipped: "no formal training, but have delivered some!" Self-help networks seemed to have grown up. Respondent 34 referred to the Open Rose group, a network of university librarians in Yorkshire who had met to draw up common procedures to help them deal with making their libraries and curriculum material more accessible, and a similar network in the south, CLAUD, had been contacted for help by respondent 51 (an East Midlands university). Respondent 41 reported that he had helped four universities in alternative format matters, though two of these did not refer to his advice in their responses to the questionnaire.

A lack of training or skill can cost universities students. One example of this came to light in an informal conversation between a student and the researcher at an RNIB forum on 25 September 2009. She had attended the 29th university to respond to the questionnaire, which, in its response, listed a lot of the standard assistive technologies as being available, and even mentioned read aloud features being available on ebooks platforms, something which no other respondent did mention. Nevertheless the student reported that, although her tutors "had bent over backwards to be helpful", in the end when it came to materials in an alternative format and assistive technology, her spouse had been both more knowledgeable and consequently more helpful:

> The lady I spoke to was very nice, but when jaws didn't work on some
> of the ebooks platforms she was totally lost; [my spouse] was much
> more helpful – after a year I just threw it in and left.

The university's response to the questionnaire did reveal that nobody had alternative format matters in their job description, but the university did know about publisher lookup. Looking at the university's response and the student's story together, one

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wonders whether this is a case of support workers knowing a little about a lot but lacking any real depth of knowledge, and in how many other universities this is happening.

Of course support staff can only be trained on the technology that happens to exist in their university at the time and on technology which they can obtain funding to buy. If staff are to be expected to train, then they need to be given time to do so, but when they were not busy fire-fighting or actually making material available, people were given other responsibilities (respondent 44 mentioned this), so support staff can easily get trapped in inefficient working methods. In this respect a lack of awareness of DAISY would add to staff's difficulties, because it is not just a format, but also a technology which enables all alternative formats, from audio to large print, to be generated from one master file. Equally staff would benefit from knowing about scanning software packages developed in the assistive technology arena that can perform optical character recognition on PDFs which are only scanned images and so turn them into text which a screen reader can process, but only respondent 9 explicitly stated that she knew about this. Nobody mentioned Robobraille, a service which generates a DAISY file, an MP3 file or a file ready to be sent to a Braille embosser from an e-mailed original. There was some confusion about the relative accessibility or inaccessibility of PDF, with respondent 19 writing as if it were next to useless, and respondent 15 merely passing PDFs on to students without even realising they might need to be checked.

Although support staff's technological awareness was, on the evidence of this questionnaire, very low, they were well-informed about what was permitted under the copyright exceptions and the licensing arrangements they had to work under; indeed Alistair McNaught of JISC TechDis referred to a strong culture of preferring and promoting copyright exceptions amongst support staff which he regarded as understandable but potentially not conducive to an ideal solution to accessibility problems[3]. However Even in the area of legislative awareness there was an instance where one respondent, number 33, thought that she needed to ask publishers for permission to change a PDF into a Word file, and respondent 58 was also confused about whether audio material produced at their recording centre could be kept once the student for whom it was produced had left.

Finally what about training on how to deal with publishers? Alistair McNaught warned that levels of training on how to deal with publishers when asking for an electronic copy of a book would be very low. He said that staff did not know who to contact (should they go to the rights department or the sales department) and that they did not know what to ask publishers for (they would ask for Word files instead of what the publisher could actually provide, PDF)[4].

7.2.2 Best-practice guidelines

Two visually impaired students have brought successful claims against universities relating to the non-provision of alternative format materials which seem to revolve around a lack of training and best-practice guidelines. Failure to make handouts accessible ahead of lectures caused one university to have to enter into a five-year binding agreement to put in place proper procedures to ensure that something similar could not happen again. In the second case a university failed to provide access to lecture notes, handouts and exam papers in a visually impaired student's required format for the full three years duration of a course. £5,000 compensation was awarded, and the university's staff were required to undertake a level 2 course on equality and diversity and to put in place procedures for consulting disabled students on any future concerns[5]. It seems then that the law sets a high priority on the existence or otherwise of best-practice guidelines when deciding whether universities are meeting their responsibilities under SENDA.

The Disability section of the Joint information Systems Committee (n.d.) issued guidelines on providing and obtaining materials in accessible formats. These guidelines have four key elements. Tutors should send a visually impaired students' reading list well in advance of the student's arrival, indicating which texts are core and which are secondary. Support staff should start work on production of accessible materials early, contacting publishers for PDFs preferably through the lookup service, and if necessary doing any transformative work on the PDF in-house. Students should be kept informed of what is going on, and should be consulted in the development of procedures. Finally throughout the whole process

staff should have clearly-defined responsibilities, and procedures should be periodically reviewed (JISC TechDis, 2009a).

It should be stressed that the absence of guidelines does not indicate a lack of commitment on the part of staff; respondents 4 and 57 were trying to put together procedures and firm up proposals for posts with clearly-defined responsibilities, but were being frustrated by a lack of resource. Indeed what was evident in the questionnaire was the frustration staff felt at not being able to develop themselves. Staff were often fully committed. As respondent 3 wrote, "I am absolutely determined to see that the student I am supporting gets everything they need to get to the end of the course." Respondent 41 had, it seems, more or less single-handedly persuaded his university to fund the production of alternative format materials itself, thus freeing up the process from the complexities of the Disabled Student's Allowance system. Staff were happy to learn from their mistakes; Respondent 15, who had not realised that there were issues with assistive technology and PDFs and who had just passed PDFs on to students, stated that she would make a point of checking them in the future before passing them on.

However a lack of planning did seem to be a feature of the way some universities were approaching the problem; only seventeen respondents reported that someone had transcription work or liaising with publishers in their job description, while respondents 13, 16 and 42 depended on student helpers.

Departments often failed to communicate with each other. For example early supply of reading lists was rare, with only four respondents (numbers 9, 20, 24 and 50) saying they always received reading lists well in advance, and only two (numbers 11 and 47) saying they received them in advance often. Seventeen respondents were sent reading lists early some of the time, twenty occasionally and ten never. The rest did not say. Performance on this was not consistent across an institution; respondents 22 and 24 were at the same university, but respondent 22 received reading lists early only some of the time. Nobody reported that core texts were distinguished from secondary texts as a matter of course. Respondent 28, who works at a university with four sites, commented that the communication of

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guidelines and the rolling out of training could vary from site to site, leading to the level of support to students being inconsistent across the university.

Some guidelines did sound as if they could easily get out of hand and a bit cumbersome, e.g. this from respondent 3:

> The need for alternative formats of key texts will be flagged up at the student's assessment of need carried out within the Student Academic Services Dept. The SAS tutor will then pass on the need for alternative formats to the information services Disability Co-ordinator (me) and I will contact the relevant Information Adviser, who will liaise with the student and contact the relevant staff for reading lists. The request for files is made via Acquisitions Department and the files sent to the Adviser, who passes them on to the student. If there are any technical issues with the files, our IT Department would be contacted, the Disability Co-ordinator (IT) in the first instance.

Communication between staff and students was usually better, though patchy. Most reported that students would be asked what format they preferred to receive material in, but only respondents 1, 11 and 50 reported running regular satisfaction surveys or focus groups so as to collect feedback. This feedback was always incorporated into policy, but satisfaction surveys are a rather ineffective way of collecting feedback, as many students will not bother to respond. Where best-practice guidelines did exist, students had had input in only two cases, universities 19 and 32, although in four cases where guidelines were being developed, students were being consulted.

At the opposite end of the spectrum respondent 11 had drawn up what JISC TechDis would regard as a model set of guidelines, but without reference to JISC TechDis. Staff at this university have a document which they send to tutors which explains why they need reading lists early and which gives deadlines by which reading lists should be supplied. They have been particularly adept at building up a list of contacts with publishers. They claim to be able to get 90% of a student's required material to that student in the format of their choice a week in advance, and

explanations are provided when this does not happen. The person mainly responsible for alternative format material holds weekly conversations with students and conducts an annual satisfaction survey, the findings of which are incorporated into best practice guidelines. Respondent 9, who had also not referred directly to JISC TechDis's guidelines, reported a similar set-up, though documents were in the process of being finalised.

The general pattern seems to be that procedures were evolving with use. Respondent 30, who had had no training and had only casual helpers, gives a vivid picture of what life looks like on the ground when this happens :

> The system usually evolves with each student who uses it. It started as we had two students on text-heavy courses who initially were intending to use braille. However, it became apparent that for the range of texts which were required the 'turn-around' time simply wasn't fast enough, or in some cases where quite elaborate notation is used - Language & Linguistics being a case in point - would have been very difficult. I asked the students what worked best for them. Audio seemed the best solution as enlarged text copies can be cumbersome, and simply the act of reading was too tiring. mp3s are easy to record, highly portable and digital widgets can be downloaded so that the audio can be played faster. I'm aware of DAISY and am attempting to explore this, but none of the students who have used this system had really heard of it as a resource.

Out of this improvisatory approach something quite solid seems to have emerged:

> Most students have preferred audio. It's actually proved more time-effective to have people read onto tape from photocopied articles than obtain badly formatted PDFs. So, I endeavour to obtain a prioritised reading list from the dept/ student in advance of the term. This is then sent to the library for relevant chapters/articles to be photocopied. The photocopies are then given to a number of readers. The student is informed who is reading what via e-mail. Recordings are made in the format of the student's choice (usually mp3) which are either sent to the student via file services such as 'Yousendit' or burnt to CD and dropped

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off at the departmental office for the student to pick up. The deadline

for the reading to be made available to the student is a week before the

seminar for which the reading is needed. This is not always possible as

it will depend on when I get the reading list."

It is perhaps as well that she had only had to support five students. The picture seems to be of someone doing their level best to cope (again, note the commendable level of communication with students, letting each of them know by e-mail who is reading the material they need).

In one sense one might expect guidelines to evolve and not remain fixed. After all, JISC TechDis's ideal and very tidy-looking guidelines will have evolved over time and initially will not have been issued in their fully-fledged, final form. The problem is that university guidelines do not always seem to evolve in an organised way, but rather as students arrive (respondent 9 openly admitted this). Only thirteen universities had directly referred to JISC TechDis's guidelines when drawing up their own procedures. This might suggest that they are almost issuing guidelines into a vacuum, but things are not necessarily quite as bad as they might seem; after all, to a large extent the guidelines described above are simple common sense, as respondent 12 put it, "Our practice evolved prior to TechDis having anything relevant to say on this topic."

7.2.3 Resourcing issues

Of course best-practice guidelines are only of use if there are sufficient staff to implement them. As noted above, respondents 4 and 57 were being frustrated in their attempt to develop best-practice guidelines and firm up roles through alack of resource. As part of their response to the questionnaire, respondent 51 sent through a link to an elaborate set of guidelines covering everything from access to library buildings to the accessibility of institutional repositories, but they were struggling to implement them again through lack of resource. The largest number of university-employed staff with responsibility for the production of alternative format material was four (respondent 28 from a four-site university), though the complexity of some of the guidelines in operation suggest that some institutions have more. In all but a

few cases, however, the staffing pattern was that of one single person, often part-time, in charge of volunteers. Respondent 41 single-handedly managed 40 volunteers. Not surprisingly therefore 17 respondents felt they could not cope with more students requiring materials in alternative formats, and those who felt they could cope only felt that way because they were confident of their university being able to provide the extra resource necessary. It seems that some universities secretly hope that they do not get any students requiring alternative format materials for specific disciplines[6].

A lack of staff had caused seven institutions to outsource transcription work to the private sector. This of course effectively means that quality control is out of their hands, and the National Students' Forum (2008) reports that the quality of private sector transcription services can be patchy. However respondents did not complain of poor quality work; one company, A2I, has a testimonial from the University of Central England on its website and respondent 16 reported they were happy with the service offered by a company called Jotters. However respondent 49 received a very expensive service from the RNIB with VAT being charged even though the service was for a visually impaired person (it should be waived in such cases), and the service had been so slow that she had decided to use PhD helpers. Respondent 59 also highlighted issues of cost, being charged £700 for the transcription of just 60 pages, and having to go to his university for a larger budget (in the end totalling £14,600). Issues of cost are dealt with in more detail in section 7.4 below, but these examples alone are enough to indicate that there is a real saving to be made if publishers provide support workers with even a reasonably accessible file of a book in a timely manner. So have JISC TechDis managed to enhance interactions between learning support staff and publishers?

7.2.4 Interactions between support staff and publishers

Some academic publishers do seem to have developed a basic policy on providing an electronic file of a book. These policies seem to have emerged largely as a result of the work of JISC TechDis. Alistair McNaught was quite clear that publishers used not to have any formal policy on accessibility, and some still did not. He said this was due to two interlinked factors. First support workers preferred to simply scan books under copyright exceptions because they did not really know how to go

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about obtaining an electronic copy from publishers, whom to contact and what to ask for etc. Secondly publishers consequently received few requests for an accessible copy of a book; they therefore had concluded that there was no demand and so had developed no formal policies to provide one when they did get a request[7].

An example of a more developed policy is that of Sage. Learning support workers (academic publishers, it seems, will not deal directly with the student), provide proof of a student's disability and then the publisher supplies a PDF to the support worker; typical terms applied to the provision of the PDF are that it cannot be copied or shared, that it can only be used by the student for whom it was requested, and that proof of access to a legally obtained print copy may be required[8].

Telephone interviews with Mark Majurey head of rights and digital resources at Taylor & Francis on 27 November 2008, and with Clare Hodder head of rights at Palgrave Macmillan on 4 December 2008, revealed a similar policy to that of Sage. There were subtle differences, such as Taylor & Francis offering download tokens rather than sending out PDFs. E-mail correspondence with Cambridge University Press[9], Hodder education[10], Oxford University Press[11], Pearson[12] and Wily-Blackwell[13] revealed that these five companies have also implemented a similar policy, with Pearson adding they can supply Word versions of their books. McGraw-Hill made no response to the researcher's request for details of a policy, but they do have a brief statement on their website which outlines terms and conditions similar to those of Sage (McGraw-Hill n.d.).

In an attempt to make the process of contacting publishers more efficient, JISC TechDis launched a website or publisher lookup service. Attempts have been made to raise awareness of the site amongst publishers and to persuade them to leave contact details of a specific person to be contacted when requesting an accessible copy of a book[14]; interestingly only two companies, Sage and Palgrave have named a specific person. Most of the e-mail contacts are generic addresses such as rights@ or permissions@. The researcher has monitored the site throughout the research project and the number of publishers and imprints which registered went from 120 in the Summer of 2008 to 164 in March 2010; an interesting fact is that some major

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publishers, such as Oxford University Press, were very slow to register, not coming on to the site till early 2010.

JISC TechDis have also been trying to persuade learning support workers to get out of the habit of scanning material and to start using the lookup service to request electronic files of a book. This stems from a belief that exceptions designed to help are also creating a problem by taking the visually impaired out of academic publishers' immediate area of concern, a belief which coincides with the views expressed by Nicholas Joint (2006, pp.168-172). Part of TechDis's strategy on accessibility has been to persuade support workers to make requests for accessible copies of books not just for those traditionally regarded as alternative format users, but also for students with dyslexia and with motor disabilities, the idea being that the more requests publishers get, the more they will see it as worth their while to develop appropriate accessibility policies and procedures[15].

On 5 November 2009, Alistair McNaught e-mailed the researcher details of awareness-raising sessions he had been running amongst support workers by means of webinars and at conferences; he also sent statistics detailing the numbers of those visiting the site, and these statistics offer some evidence that their attempts to influence the way support workers approach publishers have had some effect:

Table 1. Numbers of visitors to the lookup service, November 2008 – October 2009

Month	Number of visitors
November 2008	220
December 2008	649
January 2009	873
February 2009	782
March 2009	1019
April 2009	1069
May 2009	1128
June 2009	1087
July 2009	1225
August 2009	1237
September 2009	1301
October 2009	1623

Certain points need to be made about these statistics. It is not possible to say exactly how many of these visitors did go to publisher contact details pages. Also the

website is targeted at schools and further education colleges, so it is not possible to say how many of these visitors/users are university staff. Also 29 respondents to the questionnaire reported that they had not heard of the lookup service. Nevertheless the sudden increases between November -December 2008 and February-March 2009 are dramatic and one could argue that they can both be linked to a large amount of awareness-raising activities that went on during these months described in the e-mail mentioned above.

Of course the effectiveness of the lookup service and of the strategy that JISC TechDis have built upon it does not depend only on trying to make the initial contact between support workers and publishers as smooth as possible; it also depends on requests submitted by support workers being dealt with in an efficient and timely manner. However the data from the questionnaire paints a very mixed picture of the service that support workers receive.

Of 38 respondents who gave substantive answers on issues relating to dealing with publishers, only five were mostly positive in tone. They highlighted speedy processing and turnaround of requests, with two law publishers, Willan Publishing and Greens both being particularly praised for the service they offered (interestingly, neither of these publishers are represented on the lookup website). When asked if any publishers had been particularly helpful in providing accessible copies of books, 17 mentioned Oxford University Press (again, when this questionnaire was conducted, not on Lookup), five Cambridge University Press, five Palgrave, eight Sage (who were reported to have supplied books within five minutes), seven Pearson and five McGraw-Hill. As noted earlier, Respondent 11 reported building up relationships with key contacts in publishers over the years and that this had helped significantly.

The remaining 33 responses, while relating some positive experiences, were mostly negative in tone, sometimes strikingly so, with respondents using phrases such as "passing the buck" (respondent 55) and "making us jump through hoops" (respondents 11 and 33). "Jumping through hoops" entailed, at least in respondent 33's case, lengthy forms to fill out and a refusal to send a PDF until a hard copy of the book had been bought and proof of purchase provided.

Criticisms levelled at publishers can be grouped into five categories: the time-consuming procedures support workers had to go through when requesting books; the manner in which requests were processed; restrictive procedures imposed by publishers; cost; and the lack of standard licensing terms.

Several respondents complained that the process of requesting books was time-consuming and annoying. Even when contact details are left on the Publisher Lookup UK website, there is no guarantee of getting through to the correct member of staff. Respondent 7 reported telephoning one publisher and getting through to someone who had no concept of what an accessible copy of a book was and who did not think that anyone else in the company would know either; respondent 33 also echoed similar experiences stating that "publishers themselves often didn't know what they had to do". Some respondents highlighted the lack of online request forms.

Criticism was made of the way in which requests were processed. Frequently requests got ignored, something which respondents found particularly annoying (*"can't even dignify our queries with a response"*, as respondent 44 put it). E-mails to rights departments at some publishers are met with an automated response to the effect that requests might take twenty days or more to process (this happened when the researcher contacted publishers for details of their policies on access), and requests were often processed slowly - the most extreme example being that of a book on CD-ROM turning up at University three months after the student who needed it had returned to his home country (respondent 1). In one case, a detailed response was met, after a long delay, with the curt response "Sorry, no" (respondent 17). Respondent 36 reported that they had been encouraged to make requests by an apparently enthusiastic editor, only to find their requests meeting with increasingly slow responses and then being finally ignored. Respondent 37 said that delays in meeting requests were leading to support staff at his institution getting complaints from visually impaired students to the effect that "They were doing nothing" and went on to add "But it's the publishers".

Most of those who used the Lookup service agreed that it had improved matters. However the unpredictability of publishers' responses had made respondents 8 and 14 reluctant to bother requesting books, and they had resorted to having them transcribed or scanned. The calculation being that the time taken to do this would be less than the time taken for publishers to respond. This is interesting as both respondents have more than a few visually impaired students currently studying at their university. Changes to publishers' internal processes could increase the unpredictability of response; this happened to respondent 48 when service suddenly became very poor because of Pearson shifting their production department to India. A third category of complaint relates to restrictive procedures insisted on by publishers. Respondent 3 noted that a publisher had stipulated that the book could only be read on one computer. Support workers were not sure whether providing the computer's IP address fitted in with best practice, and the student involved could not use the book from home. Respondent 14 reported a similar case, and also mentioned an instance where support workers were given one chance to download a book from an e-shelf, and when something went wrong and they needed a second attempt, the publisher was unsympathetic.

Respondents also highlighted issues of cost. While acknowledging that some publishers provided copies for free, (they were appreciative of this), respondent 35 reported that one publisher asked for £182 for the text file of a book, which, in fact was available on Amazon for £20. There was some concern here that it was discriminatory for visually impaired students to have to pay for an electronic copy of a book which a student without a print disability could borrow for free from the university library.

Respondent 12 complained about the lack of standard license terms. He noted that variable license terms added to the administrative burden on staff who were already very pushed for time, and that terms could be restrictive, for example a publisher stating that a book could only be used by one student even though another visually impaired student might need to use it. There were also terms stipulating that a file was to be destroyed after the student had finished with it.

JISC TechDis asked one university to collect figures on how many requests led to books being supplied and how many were unsuccessful for whatever reason. The university collected figures for five students as follows:

Table 2. Success rate of requests for files of books for five students in one university

Student	Successful requests	Unsuccessful requests	Other interesting points
1	5	6	Response times ranged from 2 days to a month, one publisher provided the latest edition free even though the library did not have the print edition
2	2	1	Rapid response times, but the two successful requests rendered ineffective because the PDFs were of poor quality
3	4	0	Serious delays experienced, the most rapid response time being 12 days, two delays of over 2 months
4	0	1	Support worker not allowed to submit request via email and sent through convoluted and contradictory procedures (complicated because the request was to Pearson in the US)
5	1	1	Rapid response time, unsuccessful request because of lack of file

These figures were collected over a nine month period from March to December 2009[16].

Respondent 46 gave figures relating to an English literature student she was supporting; nine books had been requested of which five had been supplied in a usable form; three requests had been ignored and one book had been sent as an unusable scanned image of the text because of the book's age. Respondent 4 reported that three requests for books he had made had all been ignored.

An interesting insight into what might be behind some of the poor service reported came from some follow up work with Sage. It was explained that because accessibility requests might not generate a publisher any income, they tended to fall through the cracks and either not get processed at all, or else get processed last; Sage, on the other hand, had inverted the order in which they processed rights requests, so that accessibility requests were dealt with first, and then others later[17]. Interestingly, at least with the larger academic publishers, problems were less likely to arise from not being able to locate an electronic file of a book; Oxford University

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Press have files for books going back to 2006[18], Cambridge University Press 2005[19], Wily-Blackwell 2004[20], Taylor & Francis 2003[21,] Palgrave Macmillan at least 2001[22] and Pearson claimed to have files for all their books[23]. Nevertheless it should be remembered that not every academic publisher is generating even a mainstream ebook.

7.3 Legal reform and ideas on a central repository

7.3.1 Stakeholders' opinions

When answering the question whether publishers should be legally required to take greater responsibility for accessibility, only respondent 25 was firmly against, arguing that the variety of formats required by students varied sufficiently to make this unfeasible. Certainly there were enough instances in the questionnaire data of students requiring material in audio and braille to give her argument some validity (13 reported being asked for audio material and 12 for braille, with three respondents stating that audio was the most commonly requested and one braille).

Respondents 8 and 36 were sceptical of notions of a change in the law, with respondent 36 preferring the idea of publishers depositing PDFs into a repository and accessibility experts working on those PDFs to generate the accessible copy of a book. Of the others, respondent 9 directly refused to comment, two did not address the issue and 51 said that publishers should be made legally responsible for accessibility in some way. Some did not say what form a change in the law should take or to what extent publishers should be made legally responsible for accessibility, and there was sensitivity to publishers concerns, with respondents acknowledging the primary importance of copyright protection and of maintaining the integrity and viability of the publishing industry as a whole.

Some respondents were fairly mild in the way in which they argued for legal reform, simply appealing to the fact that books are created digitally these days. Nevertheless, generally speaking feelings ran high on this topic. One support worker who chose to respond to the questionnaire by telephone spoke in angry tones when the question of legal reform was brought up and said "*Yes, everyone else has*

had to gear up for accessibility, why shouldn't they?" Another support worker, respondent 48:

> Yes, yes, yes! The requirements to check that there isn't a commercially available copy and approach each publisher separately is incredibly time consuming and the inevitable delays so frustrating. Libraries and librarians are put in a no-win situation constantly and are prevented from doing the job they set out to do.

Respondent 48 was one of those respondents who were relatively untrained and under-resourced, so one might expect that level of frustration, but even respondent 14 who has the benefit of a transcription centre run by the RNIB stated "I find it untenable that the law can put all the responsibility on to us and allow publishers to make life so difficult."

Respondent 41 even speculated on the possibility of making a claim under the DDA against a publisher to recoup the cost of making a book accessible.

Some of the strong feeling respondents expressed stemmed from a conviction that students were inherently disadvantaged. This came through particularly in the follow up work, with every respondent contacted in this phase of the research stating they felt the system disadvantaged visually impaired students. Respondent 44 said: "What would other students think if they were only able to get 70% of the books they asked for?", echoing a general feeling that visually impaired students were somehow destined to be under-read. As has already been noted, even when access is achieved it is often after a delay and where delays are avoided, it is at the cost of a considerable investment of time and resources by a large number of staff. It should be said that some respondents, for example number 2, reported that their own students were quite happy and did not complain but they could see how it might be different in other institutions. Respondent 11 reported that her students told her in weekly conversations that students in other universities were struggling, though she did not elaborate on how they claimed to know this.

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Some respondents made an appeal to morality and ethics. "Everybody else has had to gear up to equality and access; why shouldn't they?" was respondent 52's answer to the question on legal reform. Respondent 44 asked "What does it say about publishers' morals and ethics?" Respondents complained that the law was unbalanced in placing responsibility on them but giving them no leverage over publishers; they had all of the responsibility but no power.

In their contact with the researcher, only one publisher addressed the moral aspect of things directly. Palgrave Macmillan referred to "People sitting in publishing houses burning books to CDs because they think it's the right thing to do and because they want people to get their books." Palgrave Macmillan were sceptical about the need for new legislation, stating quite categorically that publishers were actively looking for solutions and that new legislation would not help[24]. According to Gillian Price (2005, p.2), head of ALIS in Wales, one publisher told a librarians' conference on accessibility that reading was a privilege, not a right; presumably this publisher would oppose any attempt at directive legislation designed to make publishers responsible for accessibility.

Initially JISC TechDis took a neutral approach, seeing themselves as brokering an understanding between the ideal things that disability organisations would like if it were an ideal world, and the things which could relatively easily be provided by providers, in a world which was not ideal and which was fully commercial and full of conflicts of interests and so on[25]. However, it is worth noting that when the researcher showed some of the results of the questionnaire to Alistair McNaught, he particularly commented on the argument that support workers had all of the responsibility and no power[26].

The issues of legal reform and a central repository were considered in some depth at a roundtable discussion held at the Publishing Licensing Society on 5 October 2009 at which the researcher, Alistair McNaught and both Mrs E.A. Draffan and Jim Russell who are heading up a pilot project on accessible textbooks in schools were present. Jim Russell thought that legislation might be justified, but was concerned that it would put people's backs up and that law was a blunt instrument. Alistair McNaught repeated his view that some form of legal requirement on publishers

would probably be needed, but did not want them to be required to produce the alternative format version themselves. The issue of a central repository, whether as the basis of a legal settlement or as a compromise between the current ways of doing things and requiring publishers to generate alternative formats, was more positively received, the only concerns raised being those of funding, and whether it was too heavy a solution to solve what Jim Russell thought might be a legacy problem.

Interestingly when the researcher contacted Huw Alexander of Sage, Clare Hodder of Palgrave Macmillan and Dr Alicia Wise on 4 November 2009 with the idea of a central repository for publishers, they were very welcoming of the idea.

Ultimately the arguments surrounding who should be legally responsible for what seem to revolve around issues of technical feasibility and cost.

7.3.2 Technical feasibility

For respondents 1, 24 and 36 publishers being designated as service providers under the DDA meant that they should be required to generate the alternative format version of a book. Alistair McNaught, on the other hand, thought that publishers should not be expected to generate accessible copies, or at least not fully-fledged versions in an alternative format such as audio or Braille; his main point on technical feasibility was that publishers' technical working environments simply did not have the tools to generate such copies; Quark for example had no accessibility tools built into it. Asking publishers to generate alternative format versions of books (even versions in Word) was "A little bit like me going to you know someone who sells cars locally, a dealer in brand new cars, and asking them to repair my old camper van. They could probably organise for it to be done, but it isn't what they do"[27]. Palgrave Macmillan also argued that publishers were not experts in accessibility and that this was another reason for not expecting publishers to generate fully accessible versions of books, or at least not for now; they did foresee a time when things might be slightly different once XML had become more widespread in the publishing industry[28].

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Of considerable relevance to this aspect of the debate is the experience of those in the NIMAS initiative in the United States (a law-based initiative in which publishers deposit a file conforming to a variation of the DAISY standard into a central repository which is then used to generate an alternative format version of the book). On 18 August 2009 the researcher telephoned Ron Stewart who is in charge of the initiative to see whether the project was proving successful. The researcher was told that 1400 textbooks had been created, but the initiative has met with considerable difficulties. Because the NIMAS standard is a scaled-down version of the DAISY standard, it does not have the productivity required. Conversely, files created are so big (between 2-4 gigabytes) that they cannot be transmitted over networks or burned to a single CD. Worst of all, the schools who were supposed to benefit from these books are not technologically advanced enough to process the versions of the books being created; they do not have the equipment and pupils do not have the IT skills or even the awareness of the DAISY format. The story of NIMAS should give anyone who thinks that publishers should generate material in alternative formats pause for thought.

It is not possible to tell from the level of contact between the researcher and academic publishers how many publishers in the UK could provide DAISY files. Only Taylor & Francis had made the change to production processes based entirely on XML[29]. The rest of the larger academic publishers stated they were essentially PDF-based operations. On the other hand some publishers were making some real efforts on accessibility matters, in some cases more than Alistair McNaught thought they would be able to do. It was noted earlier that Pearson could supply Word versions of their books, and Wily-Blackwell said they could do the same for most of their books[30] (Word files are generally easier to process for assistive technology users and easier for support workers to do more substantial transformative work on). The PA's guidelines on accessibility do contain examples of how to render more complicated parts of a book such as graphs accessible, so that any publisher who wanted to could inform themselves on accessibility and think of ways of incorporating at least some changes into the texts of their ebooks, even if the accessible version of a difficult passage were put in an appendix.

Most publishers however do not seem to have been able to supply word files, and the supply of a PDF, of varying degrees of accessibility, was the best that could be expected. Respondent 30 reported that it had proved more time effective to record on to cassette or CD than to try to process some badly-formatted PDFs she had received. Respondent 19 reported that PDFs sent from publishers were so badly-formatted that she had resorted to seeking alternative electronic versions on the web. 24 had received PDFs which were a scanned image of text and so only of use to those with screen readers if they emerged from conversion to text processes in a fit state, 17 had received PDFs which would not open with a screen reader and 12 had been sent PDFs which appeared as a mass of jumbled text when opened with a screen reader. More positively 25 reported receiving PDFs which were fully accessible and 28 received PDFs which were fully accessible once some minor reformatting had been carried out.

When asked which of those five scenarios had been the most common, five reported that the PDF was fully accessible, ten that it needed some minor reformatting, five that it was a scanned image of text and one that it would not open with a screen reader.

Without knowing exactly how many PDFs respondents had received it is not possible to even start to try and draw firm conclusions on what percentage of publishers' PDFs meet accessibility requirements. Equally it is not possible to use these figures to check whether any particular publisher is doing better than another in this regard, because when commenting on the accessibility of PDFs none of the respondents named particular publishers as being good or bad in this respect. Taylor & Francis claimed that their PDFs were fully accessible to those with some vision but could not say how screen reader friendly they were[31]. Clare Hodder of Palgrave argued that publishers could not always have control over the quality of their PDFs because they were dependent on their printer for that area of the production process[32], but this seems weak; as printers' customers publishers should be able to get printers to deliver what they wanted and needed.

7.3.3 Issues of Cost

It has not proved possible to obtain costs of alternative format material production in academic publishing houses. Speaking at the CLAUD 2008 conference, Clare Hodder of Palgrave said that to generate a title in *all* alternative formats from an XML file would take sixty-two hours and cost £1,480, though that would drop to just under £500 and twelve hours if Braille was taken out of the equation (Moughton 2008). When the researcher aired these figures at the roundtable discussion mentioned above they were met with considerable scepticism. The researcher did seek further clarification on these figures, but none was received.

The questionnaire did reveal some valuable data on the cost of the current way of doing things in universities. Respondent 1 reported that his university charged £25 per hour for scanning material, while others reported charging a mere £8 per hour. Respondents tended to supply figures which illustrated costs of generating specific formats or of costs related to courses that visually impaired students had done at their university. According to respondent 44 transcribing one social work book cost £735. The cost of recording a 300-page book with an uncomplicated text was between £250 and £300, while law and psychology books or books with complicated layouts cost anything between £500 and £1500 (respondents 10 and 11). Even dealing with just sections of a book was expensive. Respondent 49 quoted an instance where rendering sections of a book into DAISY format had cost £750, and a straightforward audio recording of 100 pages cost in the region of £80. Even working with an electronic copy of a book could prove expensive, with Respondent 36 quoting £145 for converting an inaccessible PDF document into Word.

It should be remembered that all these figures relate to the processing of just one book. Factor this up by the number of students involved (about 1100 in this survey, and this does not include students at universities who did not respond to the survey, nor dyslexic students who might prefer to use alternative formats), and one is forced to wonder whether the costs of tackling accessibility on a case by case basis are such that even an expensive central repository would still be cheaper than the current way of doing things.

It should also be noted that costs will have been increased because of learning support workers having to transcribe the same material in different universities; the same duplication that takes place in libraries for the blind and which was described in preceding chapters occurs in the higher education sector. There is a requirement in the Copyright (Visually Impaired Persons) Act that files should be destroyed by the university once a student leaves, unless a publisher specifically gives permission. This has brought about a situation in which the same material is being made accessible over and over again, largely to appease what Alicia Wise described as "publishers' concerns over people hoarding their material"[33.] An example of what having to recreate the same material can mean was provided by respondent 9, when the researcher met her at a Disability Equality Scheme meeting at the British Library on 20 November 2009. She said that she had had to make 10,000 pages of material accessible over the summer; the cost and time needed to recreate that amount of material speaks for itself.

As noted above seven respondents, numbers 15, 22, 45, 49, 53, 55 and 60 reported that they were so under-resourced that they simply had to outsource any work which went beyond slight reformatting of PDFs. According to respondent 54, prices in the private sector range typically between £3 and £4 for processing an A4 page dependent on the required format, with transcription work that includes translation and technical science material coming in at a higher rate, going as high as £45 per page. This means, even at the cheapest prices, that a 300-page book is going to cost a minimum of £900. All of these costs are being met either by the university through library book funds or by the taxpayer through the non-medical helper part of the Disabled Students Allowance; one could say that the taxpayer and universities are effectively funding an exemption from the legal requirement to provide accessible information for many publishers.

7.4 Latest developments

7.4.1 Developments in academia, publishing houses and law

Oxford University has started to enter details of material made accessible by its learning support department into its main library catalogue[34]. JISC TechDis have

continued its awareness-raising sessions, though there are still examples of support staff not knowing how to contact publishers appearing on the NADP forum[35]. JISC TechDis have obtained money for two prizes, one for the publisher offering the best service in PDF provision, and one to reward the publisher which develops back office and archival practices most effective in helping to meet accessibility needs[36].

There have been potentially far-reaching developments in two publishing houses. Palgrave Macmillan have decided to switch from PDF to XML[37], which will mean that they are able to generate alternative formats themselves. Finally Cambridge University Press appear to have decided to make their books available through bookshare.org (Accessibility Action Group 2010, p.10).

A license has also been issued which allows educational institutions to share material, which at least has the potential to cut out some of the duplication that currently takes place. It should be said, however, that this license was being negotiated as far back as the start of this research project[38] so negotiations do not seem to have proceeded with any great urgency, and the section above on costs of transcription work give a broad indication of the amount of money that has been wasted during the time this license was not available.

There will also be a consolidation of disability legislation under the auspices of the new Equality Act, which contains a clause to the effect that provision of information in an alternative format can be considered a reasonable adjustment if the provision of the information in the usual manner would disadvantage a disabled student. How exactly this will affect the delivery of ebooks in higher education is not clear (the Act refers specifically to schools).

Another development that took place after the bulk of the fieldwork described above had been completed is an attempt to put the provision of accessible versions of books to visually impaired students on a financially self-sustaining footing.

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7.4.2 The Bookscholar proposal

The Bookscholar proposal was half-formed by a visually impaired Bradford student, Nav Ashraf, who then thrashed out some of the details partly in discussions with the researcher (Alistair McNaught had put us in touch) and partly in meetings with publishers and personnel from the Disabled Students Quality Assurance Group (DSA-QAG). Mr Ashraf first outlined his proposal to the researcher on 2 March 2010.

His basic idea was built on the notion of a central repository, with the added dimension that the repository would be funded by subscriptions from students' DSA. Bookscholar would buy or license books from interested publishers, incorporate accessibility changes needed into the text, and make them available on a secured website, which they would undertake to keep compliant with accessibility guidelines. Part of the idea was that Bookscholar would also earn itself some money by converting the whole book to an accessible form and selling it back to the publisher and Taylor & Francis were sympathetic.

Mr Ashraf went on to state that the main weakness with his idea was that the numbers do not add up on standard licensing prices. To work Bookscholar has to offer a large number of books and to allow multiple user access, for which publishers charge more than the basic retail price; the more users who need access, the higher the price. To use Mr Ashraf's own words, the industry would "have to show us some leniency".

He also stated that the problem is exacerbated by the spread of courses that students who might be interested in Bookscholar are doing; a few students are doing a wide range of courses, meaning that Bookscholar could not start small and build up its offer organically. There would a hit and miss aspect to its offering.

The researcher pointed out problems with the proposal. The model depended on students reading the books online with a package called Claro, which would probably be new to most users. This meant that there is a real question as to whether DSA assessors would recommend it to students, and even if they did students might

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simply decide they did not like it and ask to withdraw their subscription and switch back to more traditional methods. If Bookscholar does not do much in the way of commercial conversion, withdrawal of subscriptions could be fatal. A separate but connected problem was that Bookscholar will have to get things right first time; tolerance for problems may well be low, whether they are textual errors created by the conversion process or to do with the functionality of the site.

There is also the fact that certain things simply cannot be rendered accessible electronically at the moment. In order to maximise the potential number of subscribers Bookscholar will have to negotiate terms to allow them to print pages off, almost certainly increasing running costs.

There is the further point that Bookshare.org is entering the UK. Publishers might be tempted to go with Bookscholar because at least that way they get money instead of providing files for free, but Bookshare.org have an edge in that they are more familiar to publishers. To work Bookscholar has to become the one-stop-shop accessibility service point for higher education books from as many publishers as possible.

Since Bookscholar would ultimately depend on being able to demonstrate a return to its investors of capital, it would have to succeed quickly; if it did not, investors might well withdraw their capital to cut their losses.

The researcher heard next to nothing concerning Bookscholar for more than a year, and then on 14 May 2011 an e-mail was received from Mr Ashraf saying that he had won funding in a JISC competition looking for ideas to promote accessibility. He went on to say he had moved away from a model based on using the Claro software and would use a company called Inclusive Planet based in India to do the bulk of conversion. He stated that he would begin developing his idea to a proof of concept immediately and asked the researcher to be involved in user testing.

While changes to the Bookscholar model will avoid some problems listed above and alleviate others, difficulties are bound to remain. Nevertheless, short of a repository for books being funded either by the government or by an entity like Google,

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Bookscholar remains the best attempt yet at making such a repository a profit-
making, self-sustaining venture.

7.5 Conclusions

The nature of the data provided by the questionnaire means that caution should be
exercised in drawing conclusions from it. By its very nature the questionnaire was a
snapshot survey, and although it received a high response rate, 54 universities did
not respond. One should avoid speculating about the situation in universities which
did not respond to the questionnaire (though as noted earlier, the experiences of a
student reported at the start of the chapter related to a university which chose not to
respond, and it would be very interesting to know if the universities which were
sued by students responded to the questionnaire or not). Another point is that the
nature of the topic means that those with most to complain about are the most likely
to respond.

Even so, a 50% response rate is good for a questionnaire of this sort (the Harris &
Oppenheim [(2003, pp.243-257)] survey of the larger further education sector
achieved a 20.9% response rate). As appendix 2 shows, responses were received
from old and new, wealthy and not so wealthy universities. Responses were
received from universities where librarians were responsible for producing materials
in alternative formats, from universities where the responsibility lay with disability
departments and also from universities where these responsibilities were shared,
although in fact data seems to indicate that, while this was thought to be relevant at
the stage of pilot testing of the questionnaire, it does not in fact fundamentally
change the problems or the lack of problems universities experience, apart from a
tendency on the part of librarians (respondent 11 and 33 for example) to focus on
licensing terms. Respondents seemed remarkably honest about the difficulties they
faced and their own shortcomings (the wide range of abilities and training received
is noteworthy), and the questionnaire returned a range of opinions on legal reform
as well. The thinking behind the decision to use a questionnaire, specifically that it
was important to contact as many universities as possible to minimise the risks
associated with sampling, seems to have been vindicated. It seems safe to say that it

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can be taken to paint a representative picture of the system as it existed at the time of implementation, and given that some of the problems revealed are not the sort which can be easily solved, it may well reflect the reality in some institutions now (interestingly, when the researcher showed JISC TechDis the results they kept the data, and Alistair McNaught has told the researcher on more than one occasion that he still refers to it and that it influences his thinking). On this basis certain conclusions can be drawn.

Undoubtedly universities could do much better in terms of training their staff and developing guidelines; Joint's (2006, pp.168-172) version of events is rather one-sided and does not make any reference to the inefficiencies endemic in some universities. JISC TechDis (2009b) recently published what they term an e-maturity model for learning support workers. It is a self-evaluation tool by which staff can assess how adequate their processes are. TechDis outline the characteristics of two approaches: the immature or early-stage approach is characterised by ad hoc procedures, low levels of technological awareness and reliance on the drive and enthusiasm of individual members of staff. The more mature, later-stage approach is typified by slick procedure, knowledge sharing, high levels of technical awareness, and consequently, sustainability. On the basis of this research, few universities can yet claim to have reached the mature, later-stage approach.

Although self-help networks had grown up, these could still do better; for example judging by the discussion of support workers' interactions with publishers above, respondent 11 has not circulated the list of contacts in publishing houses she had built up over the years.

It is perhaps a shame that the case law described above has set such store by procedures and guidelines; these are important, but in fact more could be gained in terms of cost-cutting and time-saving by greater training in the most advanced technology. Based on the data from the questionnaire students would be better off going to certain universities than to others, but even if universities were brought to a uniform standard of efficiency and resourcing, it would be hard to defend the view that this would obviate the need for fundamental change and reform of the system.

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The lack of centralisation means that it is impossible to remove from the system certain inefficiencies affecting support staff, students and publishers. Currently if ten visually impaired students doing the same course go to ten different universities, then the same publishers will get requests to send out the same books ten times; it would be much more sensible for books to be deposited into a centralised repository. Likewise even though institutions with the correct license can now share the material they have made accessible with other institutions, without a centralised repository to store this material in, or at the very least a central catalogue showing what has been made accessible, nobody knows who to ask and so support workers resort to recreating the material from scratch. It is even possible that support staff do not know of the existence of this license as it was not widely publicised, and if they do not know of the existence of the Accessibility Action Group's newsletter and do not regularly check the Copyright Licensing Agency's website it would be very easy for them to miss the fact the license had been issued, and this would in turn perpetuate the wasteful practices described above.

The fact that support workers are being forced to use private sector transcription companies, though understandable, is also a potential source of inefficiency. It is easy to see why this has happened. With a typical staffing pattern of one full-time member staff, relatively untrained at that, managing volunteers recruited on an ad hoc basis as need arose, sending work to transcription companies is an easy way to lighten the burden and buy time. But there is not an enforceable code of practice for such companies beyond the terms of individual contracts, and if work starts to dry up or competition for work gets too fierce, companies will have to go in for cost-cutting measures which will demotivate staff, and then the quality of work could suffer.

Although students have successfully brought lawsuits in situations where their difficulties are caused primarily by university inefficiencies, it does seem that they are rendered powerless in situations where publishers are slow to respond to accessibility requests. As was shown above, this has led to students making unjustified complaints about the performance of their support workers when the delay they experience in accessing a book is not the support worker's fault (the

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analogy of an angry passenger complaining to the guard that the train is late when the delay is caused by a signalling problem comes to mind).

While some publishers are genuinely trying to help and the interest in ebooks has meant that files for increasing numbers of books can be supplied to support workers, it must be worrying that the general unpredictability of publisher responses is forcing some universities to revert to more standard but expensive ways of doing things (scanning a print book rather than asking or waiting for a file from the publisher). It should also be remembered that many medium-sized and smaller publishers are not even running an ebooks program and cannot therefore supply a PDF; the lack of an unambiguous requirement on publishers to supply an electronic file means that there is no incentive to make the problem of material only existing in print disappear.

Although the Equality Act provides a fresh opportunity to map out exactly what publishers' responsibilities ought to be, it may well take time for legislators to focus on the alternative format information clause and there is the potential for confusion in the way the Act is worded. That they need addressing however is beyond dispute; it is hard to defend the view that the issues described in this chapter could be addressed solely by bringing universities to a uniform standard of efficiency and resourcing.

This completes the description of fieldwork carried out on the topic of access to books in higher education and the fieldwork specifically dedicated to books. The next chapter looks at the final part of this research project and an aspect common to access to books both in the trade and higher education sector, namely securing access to books-related websites.

Endnotes

[1]. Alistair McNaught e-mail to Guy Whitehouse, 2 February 2010.

[2]. Text in italics here and subsequently indicates quotes from e-mails, interviews or the questionnaire.

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[3]. Guy Whitehouse telephone interview with Alistair McNaught, 16 October 2008.

[4]. See note 3.

[5]. Anonymised case law relating to universities sued under the Disability Discrimination Act, e-mailed to Guy Whitehouse by the Equality Challenge Unit, 24 April 2009.

[6]. Comment made by Mrs E.A. Draffan at a roundtable discussion at the Publishers Licensing Society, 5 October 2009.

[7]. See note 3.

[8]. Huw Alexander, head of rights at Sage Publications, e-mailed a copy of Sage's policy to Guy Whitehouse, 27 November 2009.

[9]. Linda Nichol, Cambridge University Press e-mail to Guy Whitehouse, 10 February 2009.

[10]. Hodder education e-mail to Guy Whitehouse, 9 February 2009.

[11]. Mary Bergin Cartright, Permissions Manager at Oxford University Press e-mail to Guy Whitehouse, 8 January 2009.

[12]. Pearson rights department e-mail to Guy Whitehouse, 8 January 2009.

[13]. Dale Morgan, Rights Sales Executive at Wily-Blackwell e-mail to Guy Whitehouse, 12 February 2009.

[14]. See note 3.

[15]. See note 3.

[16]. Alistair McNaught e-mail to Guy Whitehouse, 9 January 2010.

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[17]. Huw Alexander, head of rights at Sage, e-mail to Guy Whitehouse, 4 November 2009.

[18]. See note 11.

[19]. See note 9.

[20]. See note 13.

[21]. Guy Whitehouse telephone interview with Mark Majurey, head of rights and digital resources at Taylor & Francis, 27 November 2008.

[22]. Guy Whitehouse telephone interview with Clare Hodder, head of rights at Palgrave Macmillan, 4 December 2008.

[23]. See note 12.

[24]. See note 22.

[25]. See note 3.

[26]. Guy Whitehouse informal telephone conversation with Alistair McNaught, 11 August 2009.

[27]. See note 3.

[28]. See note 22.

[29]. See note 21.

[30]. See note 13.

[31]. See note 21.

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[32]. See note 22.

[33]. Guy Whitehouse interview with Dr Alicia Wise, London, 10 March 2009.

[34]. Teresa Pedroso, head of Oxford University Library Services, informal conversation with Guy Whitehouse at the British Library Disability Equality Duty feedback day, 20 November 2009.

[35]. Alistair McNaught informal conversation with Guy Whitehouse at the Rewiring inclusion conference, National College, Nottingham, 9 February 2010.

[36]. Alistair McNaught announcement to the roundtable discussion on access to books in higher education, Publishers Licensing Society, London, 5 October 2009.

[37]. Clare Hodder, Rights manager at Palgrave e-mail to Guy Whitehouse, 24 March 2010.

[38]. See note 33.

Chapter 8 Securing access to online bookshops and internet libraries

This chapter looks into the issues surrounding the accessibility of online bookshops, of the websites offering audio and ebook downloads provided by OverDrive to UK public libraries and of platforms provided to universities by ebooks aggregators.

The scheme is essentially the same as that used in looking at access to books. The accessibility landscape is outlined based on the responses of 6 users to the Waterstone's and W.H. Smith website and on the researcher's comments on three Overdrive websites and some academic ebooks platforms. Contact between website providers and advocacy groups is examined, and policies that website providers have on accessibility are described. Finally there is a discussion of the views surrounding whether further legal reform is needed to secure greater levels of website accessibility or whether alternative approaches are preferable.

8.1 The legal situation and W3C accessibility guidelines

As noted in the literature review, securing access to the web seems to be subject to the same sort of controversies as securing access to books, with the visually impaired favouring an approach based on the enforcement of the W3C's guidelines through law, and industry (and some academics) favouring an approach based more on a combination of relationship building with industry and user testing of websites, with some academics pointing out that research has shown that websites which are fully-compliant with the W3C's guidelines have been found to be unusable by visually impaired people (Kelly *et al*, 2005).

The legal situation in the UK regarding web accessibility is a little ambiguous. Part III of the Disability Discrimination Act of 1995 requires providers of goods and services not to treat people with a disability less favourably than their non-disabled counterparts, but websites are dealt with in a set of codes of practice attached to the Act which are themselves not legislation but guidance as to where the Act may or may not apply; academics generally agree that websites are in fact covered by the

Act, but they go on to say that the ambiguity lies in what constitutes an accessible website and it needs case law to clarify this (Sloan 2009, pp. 46-47).

The W3C guidelines define three levels of accessibility. Level 'A' compliance means that certain minimal accessibility standards have been met; level 'AA' compliance means that the website is fundamentally accessible with a few minor breaches of the guidelines, and level 'AAA' compliance means that all the W3C guidelines have been met (Web Content Accessibility Guidelines Working Group 1999). Level 'A' breaches of the guidelines are therefore the most serious and level AAA the least serious. Although accessible really refers to whether there are technical barriers preventing a disabled user from finding information on or interacting with a website, and usability refers to how easy a website is to use, often the terms are used interchangeably particularly by visually impaired people themselves; in this chapter accessibility refers to both technical accessibility and usability.

Before discussing the Waterstone's and W.H. Smith websites in detail, it is worth pointing out that in the publishing sector there has been a history of fruitful collaboration between visually impaired activists and book aggregators. In the US the National Federation of the Blind worked with Amazon to make their site fully accessible, and it is common knowledge in the visually impaired community that Amazon is a very popular site with blind computer users. When the researcher spoke to a representative of Ebooks.com and Ebooklib, it turned out that in response to requests from visually impaired customers who had hoped to be able to use their ebooks (wrongly as it turned out) Ebooks.com had reworked their site to make it fully accessible[1]. When looking at ebooks websites selling mass market fiction ebooks, the researcher found this site to be the most accessible of all. In the UK there has also been a similar example of such cooperation. Audible took feedback from its visually impaired customers into account when redesigning its site and, as a result, has kept a loyal following amongst the visually impaired community[2], and the RNIB often used to direct readers to Audible for unabridged audiobooks in its now discontinued literary features magazine Rhetoric. So how do the Waterstone's and W.H. Smith websites compare from an accessibility point of view?

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8.2 Online bookshops: the Waterstone's and W.H. Smith websites

As explained in the methodology, an Abilitynet expert, Mr Curt Holst, was asked to manually examine the code of the home page of each site because of its iconic value, and then to examine the Waterstone's advanced search page and the W.H. Smith account registration page which participants in the accessibility test would have to visit to complete specified tasks. He was then asked to list all the ways in which these pages breached accessibility guidelines laid down by the Worldwide Web Consortium Web Accessibility Initiative. He delivered his report on 27 January 2010, and the material in section 8.2.1 is taken from that report; the report appears in full in appendix 6. Although not all the breaches of the W3C's guidelines are fundamental to the tasks that participants had to perform, they are still mentioned here to give a general feel for how accessible the sites were.

8.2.1 Report from accessibility consultant

Although examples of good practice were found (the Waterstone's website actually has an accessibility policy statement on it which says that it has made some attempt to make the site accessible, whilst leaving some wriggle room), a total of 11 types of level 'A' (fundamental) errors and three types of level 'AA' (important) errors were found. Two errors common to all pages were that the HTML did not parse correctly and the 'Lang' attribute was missing. At the risk of some small repetition, the simplest approach is to list errors likely to cause a user difficulty page by page.

The Waterstone's home page had five level 'A' errors. Links enabling a user to skip past content that is repeated on many pages (e.g. navigation links) had been coded, but in such a way that a screen reader could not pick them up, meaning that a visually impaired person would have to work their way through substantial amounts of repetitive material. There were also instances of what are termed "unclear targets", namely links where the Alt text associated with a link simply says "click here" and the description of what the link actually links to is put in separate surrounding text; this effectively means that a key technique which visually impaired users have of navigating the web, that of utilising a screen reader function which lists links on a page and removes all other page elements, is rendered

ineffective. The user has no option but to come out of the list links function, find where it says "click here" and read around that part of the page to see if it is of interest.

Instances were found where headings were incorrectly nested. Ideally if a book category is in a level 1 heading, the book title should be in level 2, and then less important book details should appear under a level 3 heading etc, but here heading usage and code used to group items into a list had errors. Blind computer users often use a screen reader's capacity to jump between headings to quickly find their way to the information they are looking for, so incorrect heading structure is liable to cause confusion.

There were also two instances where no provision had been made for those who cannot use a mouse and have to use a keyboard. One was a special Christmas promotion which could not be accessed via the keyboard. The other was scrolling content coded in Flash which lasted for more than three seconds and which could not be turned off using the keyboard. In some circumstances scrolling content or content which auto-updates can make it impossible for the cursor to settle, effectively rendering the site completely unusable by a visually impaired person.

There was one level 'AA' error on the Waterstone's home page. Text had been presented as an image. This can cause problems for users of magnification software because the image can pixelate when expanded. For screen reader users it also means that the "top pre-orders" link was not picked up by a screen reader's 'list links' function.

The Waterstone's Advanced Search page had two level 'A' errors on it, both of which appeared on the home page, namely the problems of invisible "skip to main content" links and the incorrect nesting of headings. It also has the same level 'AA' error as the home page, namely the problem of verbal text being presented as an image.

The W.H. Smith home page had five level 'A' errors on it. Two are effectively the same as the Waterstone's home page, namely the invisible "skip to main content"

links and the problem of unclear targets, this time with links having Alt text which says "find out more"; the visually impaired user cannot tell what it is they would be finding out about without coming out of the 'list links' function.

Some images had no Alt text or description coded for them at all; ideally non-essential images should have "display none" coded against them so that a screen reader does not even notice they are there. As with the Waterstone's site there was a problem with the coding of headings, only this time the problem was that headings had not been coded semantically but were merely presentational; this means that screen reader users cannot use the function of jumping to a relevant heading with just one keystroke. The most serious level 'A' error on the home page was that forms, or edit boxes, did not have labels coded for them. This leads to a lack of clarity for a visually impaired user as to exactly what it is they are supposed to enter into the form field or edit box.

The home page had three level 'AA' errors. One was the problem of text being presented as an image. Another was that for some page elements the font-size had been set as absolute units (pixels), meaning that someone who wanted to use the web browser to enlarge that element could not do so. Finally the colour contrast between links and text was insufficient (3,4 to 1 instead of 4,5 to 1); this could cause difficulties to people with certain forms of colour blindness.

The W.H. Smith account registration page had four level 'A' errors, specifically the problems of headings not being coded semantically, the lack of descriptions applied to images, the lack of labels explaining what should be entered into an edit box or form field, and, as on the Waterstone's site, links which enable a user to skip past repeated content but which have been coded in such a way that a screen reader cannot detect them. There were three level 'AA' errors, two of which appeared on the home page (insufficient colour contrast and font size being specified in absolute units), along with the problem of text being presented as an image.

In short, neither site could claim to provide even a minimum level of accessibility according to the W3C guidelines (for this, there have to be no level A errors). Based on the above one might expect negative comments from visually impaired users, but

how negative, and would one site be more positively rated than the other? According to a 2009 survey of 651 screen readers carried out by a community of researchers called WEBAIM (short for Web Accessibility in Mind), the lack of skip to content links was rated as only the 11th most problematic aspect of navigating a webpage, so one would not expect this to feature much in user feedback. The most problematic aspects of web navigation which also feature in the report described above were, according to the survey, links or buttons which did not make sense (third), images with no Alt text (fourth) and inappropriate heading structure (eighth). Since both sites had all of these problems in common the researcher had expected the sites to be rated roughly equally, with the W.H. Smith site perhaps being rated as slightly worse because of the large sections of the site which had no headings or navigation aids at all.

8.2.2 User comments on Waterstone's and W.H. Smith websites

As stated in chapter 4, users were asked to complete three tasks on each website. On the Waterstone's site they were asked to review the ebooks home page, to use the advanced search features to find out how many of Kate Mosse's books were available as an ebook, and to go through the process of setting up an account stopping at the moment where they were asked to confirm registration. The tasks were the same on the W.H. Smith site except that participants were asked to review the Reference category and to search for the book *The spy who came in from the cold*. Two sent back responses by e-mail, and four returned completed survey forms which are reproduced in full in appendix 3.

The most positive comments came from the participant with the most eyesight, participant 1; he is known to the researcher and can see enough to find his way around without a white stick or guide dog, but needs to use magnification software (SuperNova) and occasionally a screen reader to access a computer. He enjoyed the websites and reported that he had completed all the specified tasks in seconds. Clearly he was not troubled by the issues that might have impacted most on a magnification software user, specifically the issues of font-size being specified in absolute units and the possibility of verbal text represented as an image pixelating when magnified. The issue of the colour contrast that did not meet the W3C

minimum guideline clearly did not cause him any difficulty either. However in all these cases this might have been a question of luck, in that a person with lower vision or a variant of his particular medical condition might have experienced the W.H. Smith website differently. He gave both sites a customer satisfaction rating of 3,75.

Participant 2, a blind academic who has been using a screen reader since 1994, gave the Waterstone's website a rating of "very poor", 1-5. He was unable to complete the task of finding out how many of Kate Mosse's books were available as ebooks and gave up after ten minutes. The problem seems to have been that he tried activating the Search command by pressing enter on the edit boxes and missed the fact that the button that activated the search was a graphical one further down the page. He also complained of the use of frames on the account registration page, and concluded that he would never use this site. He rated the W.H. Smith site more highly (3-5) and only took a "few minutes at most" completing tasks.

Participant 3 was the least experienced user of assistive technology, having started using a screen reader in 2000. She also stated that she never used the internet for shopping purposes. She rated the W.H. Smith site more highly than the Waterstone's site (3-5 versus 2-5), which was surprising because she was unable to complete the process of setting up an account on the W.H. Smith site. The higher rating for the W.H. Smith site probably has to do with the time she spent trying to use the Waterstone's advanced search features, by her own estimate, an hour.

Participant 4 had eleven years experience using a screen reader and described himself as '*an intermediate*'[3] when it came to experience using the internet. He took six minutes to use the advanced search on the Waterstone's website and was able to go through the process of setting up a Waterstone's account, though he did experience some difficulties. These were caused partly by technical considerations, the form being set up in such a way that when tabbing through the edit boxes Jaws skipped passed the "Next" button and partly by a lack of clear instruction, such as information on how long a password should be only being provided after he had entered one which was too short. His experiences navigating through the W.H. Smith site were mostly positive and he only took a couple of minutes to use the quick search field and find results for John le Carré, but he was the second

participant who was unable to complete the process of setting up a W.H. Smith account. He rated the Waterstone's 3-5 from a customer satisfaction point of view and the W.H. Smith site "*2,5 at the most*."

Participant 5 did not say how long she had been using assistive technology but did say she was a very enthusiastic user of the Internet for shopping. She found the Waterstone's site "*huge, but manageable if you know what you're looking for*." She took around ten minutes to use the advanced search features of the Waterstone's website and was another participant who had difficulties on the Waterstone's account page because of the way the form had been constructed; she described the process as "*extremely faffy*", again complaining of the way the cursor skipped passed the "Next" button. The process took 15 minutes, but she gave the site a customer satisfaction rating of 3-5. The W.H. Smith site received a rating of 5-5, with the process of setting up an account only taking a minute. Her biggest criticism of the site was the inability to jump straight to search results easily; she needed fifteen minutes to eventually find the search results for *The spy who came in from the cold*." Interestingly she commented that both sites were easier to use than some of her existing favourite sites.

Participant 6 was the most experienced assistive technology user, having used a screen reader for around 20 years. He described himself as '*a very experienced though impatient Internet user*. His comments mirrored those of the accessibility expert most nearly. On the Waterstone's site he complained of information appearing out of context and unclear target links like "click here" and "find out more." He complained about the lack of a heading at the top of the ebooks page, though he did not complain of the heading structure applied to book details. He mentioned general clutter, and was another participant who struggled on the Advanced search page, taking half an hour, again because of Jaws skipping passed the search graphic when in forms mode. The account registration process took him eight minutes, again due to the lack of clear instructions on password protocols. He gave the site a customer satisfaction rating of 3-5 and the W.H. Smith site a rating of '*1 or 2-5*', largely because of a complete lack of headings and structure. This is interesting, because when completing tasks he was quicker, needing only a minute to use the quick search facilities and eight minutes to set up an account, the main

difficulty this time being that he signed up for the newsletter by mistake before finishing the account set up process.

It was no surprise that the participant with most sight had the least difficulty, though it is worth noting here that the head of Penguin's ebook programme told the researcher that he had had real difficulties downloading books from these sites[4]. However the researcher had not expected two participants to rate the W.H. Smith site more highly, and certainly not for one participant to give it a rating of 5-5. Experience with assistive technology does not seem to have been a reliable predictor of how long people took to complete tasks, and experience using the Internet does not seem to have been much of an indicator of how people would rate both sites either. Participants did complain about some of the sorts of things that the Abilitynet consultant warned they might, but their comments do not necessarily fit the pattern of the WEBAIM survey mentioned earlier. A one-size-fits-all view of accessibility does not emerge from the feedback provided by participants.

Although user feedback was variable, the constant feature worth noting was the resentment caused by technical difficulties (note participant 2S comment that the Waterstone's advanced search page had made him decide never to use the site again and the annoyances caused by the account registration processes of both sites). Clearly users were far more concerned by technical barriers than by the lack of navigational aids. The other point worth noting was that good and bad features of the site provoked strong feelings in participants; although ratings were sometimes average (3-5 or 2-3), the way in which responses were worded was rarely bland.

Although one participant, the experienced internet shopper, enjoyed using the sites, on the whole it must be said that these sites would not offer visually impaired customers trying to buy ebooks a very positive experience, or at least not those who were inexperienced at shopping on the Internet. However it is precisely these less experienced shoppers who will have to be won over to these sites if UK publishers continue to market their ebooks through Waterstone's and W.H. Smith and if large numbers of visually impaired people are to become consumers of ebooks in non-specialist formats. It is perhaps as well that there are alternative sites to go to such as Amazon and Ebooks.com and also that initiatives like the Blio reader are hoping to offer online bookstores of accessible books, although even here there is a slight

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twist to the narrative; when the researcher and the head of the global right to read campaign met at the 2009 London Book Fair and discussed the launch of ReadHowYouWant.com, both concluded that their website, which after all was supposed to be about accessible content, was almost unusable by a blind person.

There has been contact between the visually impaired sector and Waterstone's. Both Alistair McNaught and Richard Orme, head of accessibility at the RNIB have discussed the potential of ebooks for the visually impaired and the ebooks market in general with the head of Waterstone's ebook program, Alex Ingram. Alistair McNaught even told the researcher that Waterstone's might be prepared to provide a visually impaired customer with a DRM-FREE copy of an ebook, and that Waterstone's want ebooks supplied with the Kindle 2's text-to-speech function enabled; Mr Ingrams apparently believes it helps retailers sell more books, because customers get through books faster by listening to them in the car[5].

It should also be noted that the importance of web accessibility has been flagged up in the Accessibility Action Group's newsletter. The Shaw Trust was highlighted as an organisation that would check the conformance of a website to accessibility guidelines (Wise 2008). They have given feedback on Waterstone's and W.H. Smith's websites, but it has not proved possible to gain access to this for confidentiality reasons[6].

Waterstone's and W.H. Smith were offered access to the data from the accessibility test described above and invited to comment, but no response was forthcoming. They were also asked if it was true that they might provide a DRM-free copy of a book to a visually impaired customer who had legally purchased a protected copy, but they did not comment. The researcher continued to monitor both websites once the accessibility test had been completed, and none of the breaches highlighted by participants were corrected.

8.3 OverDrive platforms built for public libraries and accessibility

The other source of fiction downloads likely to be relevant in the UK are the platforms built for public libraries by OverDrive. A marketing representative told

the researcher that OverDrive "Was deeply committed to serving the needs of the visually impaired", and could build in accessibility features to help visually impaired users, such as extra descriptions of links and hidden links for screen readers; the OverDrive media console also contains hot keys[7] (usually Alt + a number key to act as a short cut to a part of the screen). Overdrive's home page features a two-page memo by their CEO, Mr Steve Potash, sent to library partners on the 9th July 2009. It contains examples of OverDrive's activities to help access for the visually impaired, though these relate largely to other book projects such as NIMAS and Bookshare.org, and the bulk of the memo is taken up with the text-to-speech function being turned off in Adobe's ebook reading system. However it does also mention that "thousands of visually impaired customers" use OverDrive's media console, their free download application to process ebooks.

Ebooks platforms built for US libraries by OverDrive would have to conform to the guidelines laid down in Section 508 of the Americans with Disabilities Rehabilitation Act. The DDA, as enhanced in 2005, would also require them to follow W3C accessibility guidelines when building websites for UK libraries. A cursory look at the platforms built by OverDrive for UK public libraries quickly revealed that they all followed a common pattern, with account management, sign in and search features at the top of the page, some links to help sections and advice on how to get started below these, and links to categories and specially featured titles further down the page.

It was noted in chapter 5 that at the time this research was carried out ebooks platforms had been built for 14 UK public libraries. Attempts to recruit volunteers for an accessibility test of all of these platforms failed, so the time that could be spent on this aspect of the research project was limited. The researcher also suspected some of these platforms might not be in a finished state, not least because of comments at the Right to Read Alliance meetings mentioned in chapter 5 that readers all over the country could download books from the platform built for Essex public library which would obviously not have been what was originally intended (the researcher sought clarification on this from OverDrive but without success). Also comments in the e-mails and the memo mentioned at the beginning of this section suggested that notions on how to build accessibility into OverDrive's

platforms were still being developed. Because of these considerations the researcher decided to looked in greater depth at just three of the 14 platforms in existence in February 2010, those built for Liverpool, Luton and Bexley libraries. On each site the researcher navigated book categories, checked to see if it was possible for an assistive technology user to tell if a book was available for loan and which formats of that book were on offer (details for several books were examined in this regard), and finally looked at registration and help pages. The aim was to see how user friendly the sites were and to note any technical barriers to assistive technology of the sort discussed above that might exist.

Levels of adherence to accessibility guidelines vary. The one breach all three platforms had in common was two buttons on the home page which are unlabeled and completely out of context, meaning a visually impaired person cannot know what they are for and what they would do if activated. Apart from this, the platform built for Luton and Bexley were very usable with assistive technology, with no obvious breaches at least for screen reader users, and, by extension, for braille display users either. Navigation on the Luton and Bexley sites would have been helped a little if page titles could have been rendered as headings on category pages.

The worst platform from an accessibility standpoint was that built for Liverpool. Links to titles appear twice, because the link has been coded as a title and also with Alt text, so a screen reader user hears the link twice; emptying Alt text would effectively remove one of the links and remove audio clutter. Conversely there are links with no Alt text at all, such as the link to a book called *GCSE maths revision for parents*. There are links out of context with just single digits in the Alt tag, "1", "2", which might relate to 6 highlighted titles from HarperCollins, but to inexperienced screen reader users these links would mean nothing. This suggests to the researcher that the platform built for Liverpool cannot have been tested by a visually impaired user. That said, some effort clearly had gone into the provision of accessibility on each platform, the most notable example being that graphical markers which indicate whether a book is available and which devices it can be read on are all described textually, so a visually impaired user is fully informed about the terms of use for a title. Search features were fully usable (no graphical search buttons as on Waterstone's), and account registration pages were fully accessible as

well. Generally the researcher felt that a web user with a modicum of experience could use these sites, and inexperienced users could become fluent on these sites with some initial support.

8.4 Academic ebooks platforms and accessibility

8.4.1 Aggregators' platforms

As noted in Chapter 3, The Shaw trust's work done for JISC TechDis is confidential, so the researcher has worked independently on this topic, contacting aggregators with requests for interviews on their policy on accessibility and the W3C's guidelines, and also enquiring on various Jiscmail user groups for visually impaired student's experiences of using ebooks on these libraries. The researcher has also tried using some key aggregator sites with Jaws screen reader.

The most substantial contact with aggregators was with Ebrary and Ebooklib, the latter facilitated by Huw Alexander of Sage. Ebrary told the researcher that they were aware of two significant breaches of accessibility guidelines, specifically that the My bookshelf feature and the ability to sort books were operated by drag and drop, in other words by mouse only. They had plans to rectify this. They were also aware that their book reader, Unity, would not work with assistive technology, and they were planning to implement a solution whereby the contents of a page would be put into a separate HTML page[8]. This could make the site very cluttered and unwieldy for a blind user, a particular problem if books also have time-out mechanisms attached.

Ebrary did say they were committed to accessibility and had regular contact with accessibility champions in some Californian universities[9]. Being based in the US they had had to make their website conform to the same guidelines as OverDrive (Section 508). However some visually impaired activists in the US do not believe that Section 508 delivers websites which a visually impaired person can actually use; the head of the NIMAS project Ron Stewart told the researcher that he had looked at the websites of public libraries in the US and that 87% of the sites he had looked at were unusable[10]. Ebrary were aware of this problem and said that Section

508 guidelines were being refreshed and strengthened; they were sympathetic but did not want to be forced to conform to an ever-tightening set of accessibility guidelines[11]. They did not mention any particular features they might want to offer which might clash with accessibility, but the comment is an interesting one.

Ebooklib stated that they were aware that the accessibility level of their website was "not good"; they went on to report that there was someone in overall charge of improving the situation but that she was "insanely busy"[12]. Since the person interviewed had been involved in making ebooks.com fully accessible, there is good reason to think that, extreme business notwithstanding, matters will be addressed.

The researcher's experience of trying to use Ebooklib was very mixed. The website's search facilities were easy enough to use. Problems began to emerge when trying to actually read a book, *This is America* by Rusty L. Monhollon. When the book was selected the results page appeared to be very cluttered. An unfortunate feature of the page was that the links seemed to respond to the Enter key unpredictably; some worked first time, others only worked when the screen reader's list links feature is activated and Control + Enter is pressed. Some screen reader users will not know about the Control + Enter key combination, and would simply conclude that the site was unusable and operable only by mouse. The researcher could not get to the actual table of contents, but was able to activate links to chapters and to move through the book page by page, but each page opened in a separate window. This means that a blind user has to press Alt and Tab to cycle through each page, so with 20 pages read there is the potential to have to press Alt and Tab 20 times to reach the page required. It emerged that the blind participant in the study by Muir, Veale & Nichol (2009) cited in the literature review had tried to access a book on Ebooklib and had given up[13]. Since Ebooklib and Ebooks.com are both part of Ebooks Corporation, one might have expected Ebooklib to be much more accessible and usable than it is, but it seems that accessibility practice within corporations is inconsistent.

The displaying of a book in this manner is due to DRM required for page counting and auditing purposes; also the book will close if the user does nothing after 10 minutes, a definite possibility with a slow assistive technology user. The Ebooklib

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representative was at pains to stress publishers' insistence on DRM and that Ebooklib could do nothing to endanger its relations with publishers, but was sympathetic to an idea that the researcher had begun to form, that of offering access to DRM-FREE content to academic institutions by means of a specially assigned institutional logon id used for the purposes of accessing material for the visually impaired only. The one issue she foresaw causing a problem with that was the taking off of time-out mechanisms[14].

Contact with providers of other ebooks platforms was much briefer. A representative of MyiLibrary told the researcher in a brief e-mail that their site is fully compatible with the latest assistive technology and could be integrated with some DAISY applications[15]. However the website was not fully accessible. The home page has a browse by publisher and by subject feature on it, but there is no obvious way of activating this with the keyboard. Putting "digital publishing" into the search box brought up a Search Results page which was confusing because it appeared to contain links to several pages and sets of search results, but also containing a piece of text stating that no results were found. Unfortunately Loughborough University did not subscribe to books on MyiLibrary so the researcher could not try reading one, but Laura Muir told the researcher separately that her blind student had tried to use MyiLibrary to read a book and again had given up on the process[16]. MyiLibrary did say that they were planning to enhance the accessibility of their website, but gave no firm details on how and when this would happen[17].

Dawsonera did not respond to the researcher's initial request for an interview. When the researcher e-mailed the Lis-link Jiscmail user group asking if anybody had experiences of visually impaired students using the Internet libraries discussed in this chapter, a representative of DawsonEra responded that their site had read aloud features enabled on its books and also integrated other applications that students with dyslexia found useful such as TextHelp[18]. When the researcher contacted the DawsonEra representative off list, explained the nature of the research being undertaken and asked for a more in-depth interview, no response was forthcoming. TextHelp is well-regarded by dyslexic people, but the read out loud function is less useful; Ebrary reported they had this particular feature as well, but when asked how

easy to manipulate it was (for example, could it be got to read sections of a page randomly or did it just start at the top and go through to the end), the Ebrary representative described it as "clunky" and went on to add "I wouldn't want to use it[19]."

A librarian from Manchester Metropolitan University did report the experiences of one visually impaired student who tried to use DawsonEra off campus but who found the screen too cluttered. Consequently she was always being timed out and logged off the site. The librarian changed their DawsonEra settings to try and help the student, but again without success. In the end she had been forced to print the screen pages, and then enlarge them[20].

The other aggregator with which the researcher had contact was Safari. They reported that they had an old version of the site which was section 508 compliant. A support worker or librarian would send in an e-mail stating that they had a visually impaired student who needed access to this old Section 508 compliant version of the site, and the necessary arrangements would be made so that when the student logged on via his/her institutional portal the site would detect that assistive technology was running and load up the old web-pages[21] (it is not obvious that a support worker or librarian would know of this arrangement). The Safari representative did report that a new website was being designed which would incorporate accessibility features without the need for them to be activated through a special request[22].

NetLibrary did not respond to the researcher's request for an interview at all. The researcher did try accessing a book on NetLibrary, *Accounting and finance for managers* by John Kind. The same clutter as experienced on Ebooklib appeared, this time with the extra potential complication of frames. The researcher tried to page through the book but without success, and was forced to use a link to the read out loud function. However this just caused the site to freeze and there was no auditory feedback to tell a visually impaired user whether anything was happening, and so the researcher gave up.

None of the aggregators reported involving visually impaired people in user testing when the website was being developed.

These findings are important for two reasons. First, if the idea of a separate repository to receive publisher files was ever put into practice in the UK, it would be important to reduce any burden on it by ensuring that content already made available through aggregators was fully accessible. Universities subscribing to these resources are entitled to ask the question why they should subscribe to them if they are difficult even for a sighted user as reported by Muir, Veale & Nichol (2009) and if they are not meeting accessibility requirements. Second, publishers are beginning to complain about receiving requests via the lookup website for books they have already made available via an electronic library[23], indicating that they might not fully understand the effect of the DRM they are insisting on applying.

8.4.2 Publishers' ebooks platforms

It is not only problems with ebooks aggregators' sites that need to be addressed, but also those relating to publishers' own ebooks platforms. Taylor & Francis are increasingly worried about losing control of their content because of distribution through aggregators[24] and have set up an ebooks store of their own. The researcher examined it and found it problematic. There were graphics with no Alt text or description meaning that it was impossible to tell if they were important. There were links out of context and links which just had "more" in the Alt text. Another problem with the links on the site was the appearance of a strange bracket ahead of the Alt text, meaning that it was impossible to jump to a link by pressing the letter of that link, e.g. going to the login link by pressing the letter L. Searching for titles was easy enough, but the lack of any structure to the page meant results were not easy to find.

The other platform in this category which was examined was Palgrave Connect. This was much better than the Taylor & Francis site. Pages were fairly simple to navigate with headings describing book details in sequence, so titles in level 2 headings, 'other details' in lower level headings. It was disappointing that a Browse inside a book feature did not seem to work with screen readers, but it was possible to open books themselves, and although the quality of PDFs varied with some being scanned images and one not opening at all, it was possible to page through the

books. There was no DRM attached which might cause the book to time out. The
Shaw Trust also reviewed the site, and the researcher did ask Clare Hodder of
Palgrave if it would be possible to see their report, but no details of the Shaw
Trust's feedback were provided.

This exercise is also interesting because of what was done with the feedback
provided. It emerged, ten months later, that all accessibility feedback had been sent
to the development team (not based in Palgrave as it turned out), and that the
developers would incorporate the feedback sent into their future plans[25]. However
this needs to be set against a conversation between the researcher and Clare Hodder
of Palgrave who had asked for the accessibility test to be done, in which she said
that although technical glitches would be dealt with as a matter of course, any
requests for changes relating explicitly to accessibility would drop to the bottom of
the pile. If the budget did not allow for accessibility enhancements to be built in,
they would be omitted on the grounds that they would benefit the smallest number
of people[26].

8.5 Views on the way forward

As noted above, the W3c accessibility guidelines or variations of them do seem to
be informing dialogue on the way forward. The Shaw Trust's feedback to ebooks
aggregators will have been based on those guidelines, and companies based in
America have to build websites which are compliant with accessibility standards,
though Ebrary were concerned at the prospect of ever-tightening guidelines. The
European Union are considering a fresh legal initiative on web accessibility,
regarding it as a necessary step in the creation of a market functioning at maximum
efficiency (Redding 2009).

On the other hand Brian Kelly told the researcher at the 2009 Techshare conference
that he still wanted to place the emphasis on user testing; he maintained his view
that standards were drawn up too quickly and that by its very nature technology
could not be made to conform to standards as it developed. Alistair McNaught told
the researcher that he did not favour a "one-size-fits-all" solution. He commented
that the effort to get government websites to be 'AA' compliant had "been a

nightmare", and argued that a website which was targeted at teenagers encouraging them to say no to drugs would lose all its effectiveness if it had to be made W3C compliant, an interesting insight from his experience of offender learning, though not necessarily germane to the debate on accessibility in the field of publishing. He also pointed out that Internet libraries were "in an arms race to provide more and more features", with the obvious potential for clutter. His view was that the best way to guarantee accessibility was for aggregators to maintain scaled-down versions of their main websites. His argument was that this would also be beneficial to sighted students who might want to access the site using their mobile phones, and that in this way the interests of the visually impaired could be linked to those of mainstream customers, rather than having to be addressed as an extra issue[27]. Mrs E.A. Draffan of Southampton University, who is also a member of TechDis and who has also worked on accessibility and e-learning, stated her position in a workshop she led at the 2010 Rewiring Inclusion conference; she sees value in the Kelly approach, but thinks that it is not time to give up on a standards-based approach yet, if only for political reasons.

8.6 Conclusions

A contradictory picture emerges. Accessibility guidelines have had a positive effect on some trade publishing websites (Amazon, Audible and ebooks.com, all of which feel remarkably similar to a screen reader user whatever the optical difference between the three sites), and one could use the results of the Waterstone's and W.H. Smith accessibility test to argue for the importance of the role of guidelines in promoting access, particularly the feedback relating to technical breaches. Yet this research has produced another example of what sceptical academics have been pointing out all along, that sites which do not even achieve level 'A' guidelines can be popular with visually impaired users (for example the participant who rated the two websites as better than ones she regularly used for Internet shopping). Equally very few participants echoed the concerns flagged up by Abilitynet's accessibility expert. Web accessibility it seems is, to some degree, irreducibly subjective. One has to hope that accessibility breaches are ironed out by the time ebooks finally become accessible.

The low level of accessibility that academic Internet libraries provide is particularly worrying. It is certainly good evidence for what Kelly *et al* (2005, 2007) warned of in his papers, that adhering to standards does not necessarily deliver very accessible and usable websites. It will be remembered from the literature review that US librarians ran accessibility tests on emerging ebooks platforms, and have been using aggregators' level of awareness of Section 508 as a barometer of the industry's awareness of accessibility issues generally; whether or not feedback from these tests found its way back to aggregators is not known, but if it did it either made little difference or else one has to conclude that the way in which librarians test platforms' compatibility with assistive technology bears little resemblance to the way in which a visually impaired person interacts with a website.

This point comes out particularly when one contrasts the state of academic libraries with success stories in the mass market fiction sector, such as Audible and Amazon. In both cases visually impaired people themselves seem to have provided input on what makes a site usable and what causes trouble. In this respect The Shaw Trust's recent involvement as a consultant to the publishing industry on accessibility matters should be welcomed, because they use visually impaired people themselves in their accessibility tests (Shaw Trust, n.d.). It will be interesting to see whether the websites they offered comments on improve within a reasonable time frame.

Which approach, one based on standards, or on user testing or on Alistair McNaught's idea of scaled-down versions of sites targeted at mobile technology users, ultimately proves most necessary in the area of online bookshops and Internet libraries will depend on which is best-suited to the number of sites involved. History suggests that as long as ebooks sales in the UK are from a few dominant sites, as is the case at the moment, any accessibility issues can be dealt with by behind-the-scenes representation and liaison with visually impaired users; legal considerations might fade into the background, except that experience in the US suggests that having a legal obligation to consult in the first place is important, but as noted above that already exists anyway. In the case of sites built for Overdrive the issue of scale, that is the potential number of sites involved, particularly in public libraries, will be much to the fore, and this suggests a more standards-based approach. The number of OverDrive sites could go well into the hundreds, and not all of these sites could

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be user tested, and the question could be asked why should they be? As stated at the start of the chapter, all public sector bodies have to deliver accessible websites. It remains to be seen whether the strengthened Section 508 standards match the W3C guidelines typically used in UK-BASED accessibility initiatives. Whichever standards prove the most appropriate, Share the Vision will have a lot of work to do raising accessibility awareness in public libraries.

Solving the issue of access to academic Internet libraries may well need legal change, as here the issue is not just about the website interface but about the way in which books are presented for reading which in turn has to do with the legal status of DRM. Unless the WBU wins its fight for an exception allowing the bypassing of DRM for assistive technology users (one has to conclude this is quite a way off), or unless the UK enacts such an exception unilaterally (unlikely), or unless JISC enforce some policy change, or, finally, unless libraries decide that ebooks platforms presented in their current form are sufficiently unpopular with sighted users that they threaten to discontinue subscriptions, there is little prospect of immediate change. Thus DRM becomes the point where the issues affecting access to books and to online bookshops interlink; it is time for a broader discussion of all the issues.

Endnotes

[1]. Guy Whitehouse interview with Suzanne Cole, Director, Strategic Partnerships at Ebooks.com and Ebooklib, British Library, London, 11 December 2009.

[2]. Guy Whitehouse telephone enquiry to Audible.com customer Services, 25 November 2009.

[3]. Text in italics here and subsequently indicates quotes from survey responses and/or interviews.

[4]. Guy Whitehouse telephone interview with Brad Dawson, head of Penguin's ebooks programme, 13 November 2009.

[5]. Alistair McNaught informal conversation with Guy Whitehouse at the Rewiring

Inclusion conference, the National College, Nottingham, 9 February 2010.

[6]. See note 5.

[7]. David Burleigh, marketing representative of Overdrive, e-mail to Guy Whitehouse, 30 January 2010.

[8]. Guy Whitehouse telephone interview with Bruce Barrett, Technical Product Manager at Ebrary, 12 October 2009.

[9]. See note 8.

[10]. Guy Whitehouse telephone interview with Ron Stewart, Head of NIMAS programme, 18 August 2009.

[11]. See note 8.

[12]. See note 1.

[13]. Laura Muir e-mail to Guy Whitehouse, 4 February 2010.

[14]. See note 1.

[15]. Julie Frampton, Customer Services Supervisor at MyiLibrary e-mail to Guy Whitehouse, 11 December 2009.

[16]. See note 13.

[17]. See note 15.

[18]. Jude Norris, Ebooks Sales and Marketing Manager of DawsonEra e-mail to Guy Whitehouse, 21 January 2010.

[19]. See note 8.

[20]. Catherine Broadley, Senior Assistant Librarian at Manchester Metropolitan University e-mail to Guy Whitehouse, 21 January 2010.

[21]. Isaac Shaeffer of Safari Books Online e-mail to Guy Whitehouse, 9 October 2009.

[22]. See note 21.

[23]. Alistair McNaught informal conversation with Guy Whitehouse, Techshare 2009 conference, the Excel Centre, London, 18 September 2009.

[24]. Mark Majurey, Digital Development Director of Taylor & Francis e-mail to Guy Whitehouse, 13 November 2009.

[25]. Clare Hodder, Rights Manager of Palgrave Macmillan e-mail to Guy Whitehouse, 19 March 2010.

[26]. Guy Whitehouse informal telephone conversation with Clare Hodder, Rights Manager of Palgrave Macmillan, 30 September 2009.

[27]. See note 23.

Chapter 9 Discussion

9.1 The accessibility landscape

Overhanging the whole issue of access to books and online bookshops for the visually impaired are the arguments over what the legal framework should be; the case that the visually impaired put forward is essentially a human rights one; the attempt to show that accessibility makes good business sense, as in the Kindle 2, has the appearance of being an add-on. Before discussing the legal framework further however, some points on the accessibility landscape and on stakeholder relations are worth noting.

9.1.1 Self-help and third sector activity

Is the legally dubious sharing of books over the Internet as described in section 5.2 of Chapter 5 proof that publishers' concerns over piracy are justified or an understandable reaction to a perceived need by a community which feels that the industry is essentially uninterested in its concerns? Perhaps a bit of both, but in the researcher's view, mostly the latter. Members of the secret Internet library that the researcher found out most about are only allowed to join the group if recommended by others and if they do not mention the group in public forums. This is obviously partly out of self-interest, but it does also mean that books uploaded do not get shared with those who are not visually impaired, in other words it is a fundamentally different operation to Piratebay. Members are not stealing electronic files from legitimate websites, but are scanning books which they have legally purchased or borrowed from friends (it is highly unlikely that they are library books, because they would not survive the scanning process, unless the person uploading the book had the most up-to-date scanner). One could reasonably argue that the sharing of books over the Internet through secret groups is really the equivalent of sighted people lending each other physical copies of books.

If publishers adopt a policy of applying DRM, even though they know full well that it blocks assistive technology, they cannot really complain if visually impaired people launch secret Internet libraries. It was concerning that Pan Macmillan would

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not commit to providing a DRM-FREE copy even to a visually impaired customer who had legally purchased the original ebook[1]. Of course many of these arguments, apart possibly from the point that these user groups are the equivalent of book lending in the print world, would disappear if full accessibility was to be delivered through normal channels. In that case using these groups to obtain books for free would not be justifiable. In this regard it should be said that when visually impaired people do find legitimate booksellers who will supply them with a book in a form they can use, word goes round and a customer base does develop, as in the case of Audibleand Accent Press.

UK publishers have not been quick to issue licenses to legitimate initiatives like Bookshare.org, and even when they have Bookshare's procedures are complicated, requiring members to unencrypt books; it's much easier to simply look for an unencrypted Word or text version on a self-help user group. The main worry about the sharing of books via secret Internet libraries is that group members might have been permanently lost to normal market channels.

A bold attempt at a solution to such groups would be to co-opt them into the trusted intermediary model and allow organisations like libraries access to books already scanned by such groups. This would be very sensitive from a political point of view, and no doubt some would argue that it effectively legitimises a form of theft, but on the other hand it would provide a means of drawing a line under this sort of activity and it would also give UK publishers access to customers whom they might otherwise miss, particularly those living abroad, and thus to a greater market for their books. This need to build a route to market for the visually impaired is of paramount importance. It is unfortunate that even in an Internet setting it has been a charitable organisation, Bookshare, which has emerged as the main distributors of books from publishers direct to visually impaired people; there must be a strong possibility that this will have had the effect, however unintentionally, of reinforcing the view that the visually impaired are not core to the book market because they do not pay for books. Of course blind people themselves benefit from getting books from Bookshare merely for the cost of a subscription, but as was noted in Chapter 5, there is a danger in visually impaired people becoming habituated to getting books effectively for free. Strategically it might have been better long-term if

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ReadHowYouWant.com had appeared on the scene first, as then publishers would have received royalties from downloads and even from orders of braille copies.

Another concern about the accessibility landscape as it emerged from this research is the inefficiencies and duplication in the system. As noted in Chapter 5, ReadHowYouWant.com needed a three-year research grant to develop the software needed to generate alternative format copies, yet at the same time other software was being developed which does the same thing; is this a wise use of public money? It was also disappointing, though not surprising, to find duplication in the activities of organisations like the RNIB and Calibre Audio Library. As long as these remain separate organisations duplication is inevitable, unless both organisations reached an arrangement whereby members of one had access to the catalogue of the other. The researcher did not discover whether the RNIB and Calibre had plans to merge, but it's worth noting that the RMIB and the former National Library for the Blind of the UK did merge, and after some teething problems the exercise does seem to have been a success.

What about the idea of public libraries making innovative contributions to accessibility by taking advantage of exceptions in the Copyright (Visually Impaired Persons) Act? At first sight the evidence seems somewhat contradictory. Frontier Books's experience, which, after all, was based on contact with every library authority in the country, could be interpreted as providing strong evidence for what Owen (2007) describes as libraries inward-looking and fixed attitudes, yet on the other hand the fact that at least some of their trials were unsuccessful with visually impaired people might be regarded as actually supporting the stance of such authorities.

Should libraries buy equipment that might benefit visually impaired people before it has been definitively proved that such equipment might be useful? It could be argued that this is no more than what libraries do for their main customers, buying books without knowing whether all the books they buy will be read or just sit on the shelves unused. On the other hand it is not obvious that every library getting involved in scanning and brailling is the most effective use of resources, regardless of whether there is a demand or not. There is a real danger that the taxpayer will

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start funding the same duplication of effort in public libraries as they are currently funding in universities only this time through the council tax instead of the disabled students allowance. It is encouraging that some libraries feel able to provide this service, but at the same time thought should be given as to how best to centralise this sort of activity. It might even be best for part of the library budget to be given to Seeing Ear.

It was interesting to find that a few local libraries had taken on the task of recruiting volunteers to record books requested by visually impaired members. Given that only a fraction of subscribers to lis-pub-libs did not respond to the researcher's request for information and views on this topic, one might be led to suspect that the libraries who did undertake this kind of work were very much the exception to the rule, particularly bearing in mind what happened to Frontier Books, and there might be any number of reasons for this. On the other hand one could argue that if some libraries can do this kind of work, then some others must be able to as well, not least as reading for or to the blind is one of the least technical forms of voluntary work. A localised service is better-placed to respond to single requests than the RNIB's talking books library which has to deliver a service to the whole country, hence its policy of only recording specifically requested books if three or more people ask for a particular title. A localised service could also respond faster.

Although this research has revealed that public libraries have, albeit on an ad hoc basis and almost certainly without the same degree of experience, taken on exactly the same sort of transcribing and recording work done by the RNIB, there is no immediate prospect of this becoming a national phenomenon. Until the NEALIS project has been completed, and until upcoming developments such as cuts in financial funding and the library modernisation review have worked their way through the system, it would be wrong to try to define some sort of one-size-fits-all core library offer. Whilst Share the Vision are right to continually remind libraries of their statutory responsibilities, visually impaired people, and ideally people with other reading impairments, need to interact with their library to prove that a demand is there, and space needs to be given to allow local activities to grow organically.

In the meantime the increasing interest of libraries in audio downloads and ebooks

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is potentially beneficial to the visually impaired, though the rather breezy statement that ebooks have arrived does not seem to be justified. Any optimism from the MLA needs to be offset by warnings of a wait and see attitude by Fiona Marriott of Luton Library, who, after all, has been a key figure in the debate over ebooks in public libraries and so should have a feel for the true state of affairs on this topic. Judging by the size of collections being subscribed to, most avid readers will get through what is offered fairly quickly, and of course OverDrive cannot meet individual choice in the way Cumbria did. There is also of course the challenge of putting in place a regime to ensure websites are accessible for those who can use them and that downloads can be delivered in some way to the housebound. These difficulties notwithstanding, it is encouraging that at least to some degree ebooks and audio downloads offer the chance of the interests of the visually impaired and mainstream library members coinciding.

9.1.2 The industry's offering

The publishers whom the researcher tried to contact, listed in chapter 4, are responsible for all but a fraction of audiobook production in the UK. The industry's offering to those requiring audiobooks on traditional media such as CD is not an inspiring one, with even abridged audiobooks costing as much or even more than the full-length hardback. It is easy to see why the visually impaired would want to see VAT not charged on audiobooks, and interesting that the industry thinks that reducing the price in this way offers a better chance of publishers making a profit than maintaining higher prices; this issue stands out rather as one of the few issues on which the visually impaired community and the Publishers Association have campaigned together. Certainly the UK government lost an opportunity to generate some goodwill when it refused to remove VAT from audiobooks and ebooks. However would removing VAT from an audiobook priced £24 really make such a big difference?

More innovative ways of stimulating the audiobooks market than abolishing VAT are needed. At 300 pounds an hour one of the key contributors to the high price of audiobooks seems to be the fees of narrators. An interesting experiment would be to see what happened if the RNIB sold some of the recordings of books it had made to

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publishers who could then try marketing them at a greatly-reduced price, maybe even sharing the royalties with the RNIB. It would be an arrangement similar to that which exists in the ebooks industry, where companies like Summersdale generate ebooks for publishers who cannot afford to generate the ebook itself[2]. It would not make more audiobooks available to the blind, but if it worked it would reduce the RNIB's dependence on donations, and it might raise the profile of audiobooks by simply raising the number available, which in turn might stimulate more mainstream production of audiobooks.

However duplication costs were also key, and the evidence suggests fairly unequivocally that the future of unabridged audio is in the download market. At first this led the researcher to conclude that the future was extremely bleak for those visually impaired who either could not or would not invest in a computer and who insisted on a human voice and rejected synthetic audio, and that the only thing that might be done for people in that category would be to clear the way for Recording for the Blind and Dyslexic in the US to share their catalogue of 50,000 titles with visually impaired people in the UK, and maybe to persuade other public libraries to emulate Cumbria's recruitment of local volunteers to read books of choice on to tape or CD. However the arrival of the easy-to-use Boombox which runs off memory stick suddenly brings the download market into the reach of the visually impaired without a computer. A sighted friend or relative could download a book and copy it on to the memory stick, which the visually impaired reader plugs into the Boombox. It may even be an easier way of librarians making books available for their housebound visually impaired users. Unfortunately at this writing the Boombox can only play Mp3, whereas by far the biggest retailer of audio download in the UK is Audible, so further developments are needed to get the full benefit out of the Boombox; either the audiobooks industry would have to start marketing books on memory sticks, or the Boombox itself would have to be adapted to play Audible's proprietary format, or an arrangement would have to be made with Audible that they could provide mp3 versions of their books.

Those who would be capable of using ebooks and ebooks devices have not been well-served either. It is hard to understand why someone would bring out a device on which the font of the page can be enlarged, but the menu instructions could not;

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it is things like this that cause a degree of ill-feeling. It may have been a genuine oversight, or it may be that the capacity to enlarge the font on the page was intended as a feature to try and distinguish the product from other devices, or it could have been intended to indicate that the manufacturer was aware of accessibility concerns but released the device in its half-accessible half-inaccessible form in order to try and get a toehold in the ebooks device market. The lack of any response from producers of ebooks reading devices makes it difficult to say what the thinking was behind such inconsistencies, but the fact that some people with residual vision were prepared to buy them and get sighted friends or relatives to operate the menus shows the extent to which some visually impaired readers are prepared to go to get access (of course these may be somewhat atypical and many more visually impaired people might be waiting for devices to be made fully accessible and easier to use).

9.1.3 Levels of access in higher education

Of all the data found on access to books in higher education, what stands out from the researcher's point of view is Alistair McNaught's remark that even the success achieved is only giving visually impaired students access to the basics, or to a diet of minimal nutrition. The data shows that the performance of universities on accessibility varies widely, and certainly one must not assume that the worst experiences of students recorded in chapter 7 are typical of the system as a whole, but Alistair McNaught's comment must be right; the logistics of making material accessible on any significant scale means that there just is not enough time or money to provide full access in any system where accessibility is not built into the processes which generate educational material at source (statements from respondents to the questionnaire that they could not cope with more visually impaired students need to be borne in mind here).

Visually impaired students pay the same university fees as their sighted counterparts, but universities do not deliver a uniform level of service and UK authorities have thus far been uninclined to tackle the problem at source by placing any obligation on publishers who generate the material universities buy off them. The question is not so much whether the current system is sustainable or can continue because if it has to it will do, but rather whether it should.

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9.2 Stakeholder Relations

The degree of contact that has developed between the visually impaired and the industry is somewhat unusual. There are no stakeholder platforms between the visually impaired and other industries on this scale, and it must be odd for publishers to deal so directly with customers too.

9.2.1 Stakeholder relations with trade publishers

One thing about stakeholder relationships which should be noted is that on the international stage visually impaired individuals themselves have had much more of a presence either in the form of the Reading Rights Coalition and the National Federation of the Blind or the WBU at WIPO, whereas in the UK contact is much more through professionals in organisations representing the visually impaired such as the RNIB. This has both positives and negatives. In Chapter 5 it was noted that some blind people thought that publishers could generate marketable audiobooks by producing mp3 files from Word documents which shows a certain level of ignorance of the publishing process and consequently of what publishers are actually capable of producing, whereas professional campaigners at the RNIB would be more informed and so adopt a more nuanced approach. On the other hand, one has to wonder whether some necessary militancy gets lost in this approach; it is interesting to compare progress in the UK, (the Lookup service in academia, and the perceived greater progress on the Kindle's text-to-speech, and the pilot project on the marketing of large print versions of bestsellers in mass market fiction), with the progress made in the US (persuading their government to back the idea of a treaty if not the treaty text and the Department of Justice ruling on the Kindle 2 and Los Angeles public library suspending the purchase of more ebooks for accessibility reasons).

Organisations perceived by the public as service providers to the visually impaired clearly have to be careful of their reputation, whereas organisations of visually impaired people who exist only to campaign are freer to engage in activities like picketing the Authors Guild. If, like the American National Federation of the Blind,

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they have access to a fully-qualified lawyer, they are more likely to favour even speculative legal action to achieve a goal. It is true that the head of accessibility at the RNIB was prepared to get militant about Kindle 2, but the Americans have been much more active in bringing lawsuits on issues of accessibility.

What is really needed is an approach that harnesses the best aspects of visually impaired militancy and the greater knowledge of professional employees in organisations like the RNIB. If the visually impaired sector breaks off relationships with industry, then the accessibility landscape described in Chapter 5 is what happens; the survey of publishers described in that chapter does suggest that the visually impaired are, as often as not, out of sight and out of mind. Clare Hodder's remark, that she had become interested in accessibility because of hearing a blind student describe how bleak her experience of higher education had been because of the inability to get access to the books she needed[3], is important. Even if ebooks arrive in force for demographic reasons, they may continue to be, or become in the future, inaccessible. On the other hand one has to ask whether a continuous relationship which delivers little, and most importantly of all, which does not bring the prospect of the visually impaired accessing the book of their choice any nearer, is ultimately worth anything.

Ongoing arguments at WIPO and the dispute over the Kindle 2's text-to-speech have had a particularly disruptive effect on stakeholder relations. Some of the Reading Rights Coalition's slogans and statements on the Kindle might seem personal and aggressive, but it should be borne in mind that the way in which the Authors Guild has changed its stance and its justifications for the position it took on the text-to-speech function can only have given those visually impaired people who followed the dispute the impression of dishonesty. The iconic significance of adding text-to-speech to technology has for the visually impaired should not be underestimated. Whatever the ins-and-outs of the assignment of multimedia rights in the publishing industry, the average visually impaired consumer would not accept there was any real difference between reading a Word version of a book with Jaws and listening to a book with the aid of the text-to-speech function; inevitably therefore any publishers who asked for it to be turned off will be regarded as obstructive.

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It would be tempting to compare the openly confrontational approach taken by the visually impaired in the US with the approach of applying pressure behind the scenes taken in the UK, to see which delivers greater accessibility, and draw conclusions as to which was more effective, but until settlements emerge in both countries this cannot be done, and in any case the differing size of the audiobooks industry in each country means that the two situations are not entirely comparable in that way. What matters is what both situations have in common, namely the sense that the visually impaired have of having to fight for everything they get.

It was interesting to discover that even the exceptions in the Copyright (Visually Impaired Persons) Act had to be fought for so hard. Why allowing longstanding institutions like the RNIB to make a book a copy of which it had legally purchased accessible should be a threat to the industry is very hard to understand. The fact that the industry opposed it without having any real, concrete arguments to offer against it could be regarded as showing an unfortunately dogmatic attitude. While it is questionable how much of its content a mass market fiction publisher should be expected to produce in accessible formats itself, it could at least be expected not to stand in the way of those institutions which undertake that task; in this respect arguments that slackening copyright exceptions would encourage piracy look rather unconvincing, and begin to make the industry look as if it has not really got an argument but still wants to prevent progress.

That said, the researcher has sometimes found that some visually impaired activists have failed to understand some of the pressures on publishers, particularly those resulting from Amazon's attempts to assert dominance in certain areas, the challenges of monetising digital content and from the shockwaves resulting from the Google dispute. This lack of comprehension by both parties of each others' difficulties, or the tendency to understand them but dismiss them out of hand (the Federation of European Publisher's reference to an "Overheated discussion of the rights of the disabled" and the positive enjoyment of publishers' discomfort over the threat of "being screwed for terms by Amazon the way the music industry was screwed by Apple[4],[5] are not really helpful), means that the role of intermediary played by Dr Alicia Wise of the Accessibility Action Group has been a valuable

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one. Her speech to the 2008 WBU general assembly which the researcher attended as an elected delegate, in which she said that copyright reform might be necessary "if only to clear the air and put an end to past recriminations", was diplomatic and balanced, and the researcher has found her sympathetic to ideas on how things might be moved forward, such as repositories for publishers files and ways in which academic ebook aggregators could offer enhanced services to the visually impaired.

Alistair McNaught, who, as an author and committed disability advocate in academia is the closest the researcher has found to someone genuinely in the middle on the issue of access, also believes Dr Alicia Wise has a real vision for accessibility[6]. Even if the suspicions of some visually impaired activists are true, namely that when all is said and done she is biased towards publishers, it could turn out to be useful; the fact that the Publishers Licensing Society and other associations such as ALPSP cannot force members to take a particular line means that, unless the law changes, she can deliver support from more publishers if they believe her to have their interests at heart.

Perhaps the fundamental problem underlying stakeholder relations, of which all other problems are merely the outward symptom, is that the relationship between the publishing industry and the visually impaired is a fundamentally unequal one. The industry has much of the power in this relationship. It has easier and more ongoing contact with government, while the only real power that the visually impaired have is that stemming from public relations activity, and while the National Federation of the Blind has certainly been effective in promoting its case, it has been less easy for the UK Right to Read Alliance to gain a seriously high profile. Industry can choose the level at which it wishes to engage with accessibility or even not to engage at all, while at the time of this writing the visually impaired have no option but to continually try to keep the industry interested (in this regard comments of members of the Right to Read Alliance about not alarming the industry to the point at which it disengages are particularly interesting).

The visually impaired have brought about some legal reform such as the Copyright (visually impaired persons) Act, and when the researcher attended a lobby of the European Parliament in May 2010 it became obvious that the WBU enjoyed the

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support of some MEPs. Nevertheless the researcher has been struck by how easy it has been for industry and government delegates to block progress at WIPO and at the European level. Indeed all they have to do is to maintain the *status quo* and/or field counter-proposals until such time that the WBU decides it no longer has the financial resources to continue campaigning. As stated in chapter 6, the proposed terms of the memorandum of understanding are very unequal (e.g. unlimited liability for the loss of a publisher's file by a trusted intermediary), and if this were enforced it would merely perpetuate the inequalities inherent in the current system. Whether an entirely equal relationship between both sides is possible is open to debate, but problems will certainly continue as long as the level of inequality is not reduced.

9.2.2 Stakeholder relations in academia

Some of the comments in the previous two paragraphs apply to stakeholder relations in academia as well. Relations are fundamentally voluntary in nature. While it might be harder for the industry to disengage entirely because of the moral considerations surrounding access to higher education, it can still choose what level and how it engages. However hard JISC TechDis works and however innovative its ideas might be, all it can do is hope that industry will engage, and it can't even enforce standards in universities. As pointed out in chapter 7, learning support workers carry a high level of responsibility but have little power. The visually impaired student has some power in that he/she can resort to the law in cases of malpractice in the case of learning support departments, but this power would have to be proven in the event of a suit against a publisher, and of course resorting to law is a very much 'after-the-event' sort of power and is slow.

Even so in academia the problem does not seem to be one of deliberately obstructive behaviour on the part of industry representatives, though the time taken to negotiate the terms for the license which allows institutions to share content suggests it might exist in some places, and Huw Alexander of Sage's remark about accessibility requests falling between the cracks because they have no monetary value should be remembered (section 7.4 of Chapter 7). Of course in a voluntary system difficulties will arise if only a few publishers are unsupportive. Publishers

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complaints about having to send out files for books which they have already made available through an e-library are understandable on one level, though one has to say that they cannot have things both ways; again, if they are going to apply DRM which makes access on e-libraries complicated, they should not be surprised if people continue to send in requests via Lookup.

The real issue in stakeholder relations in academia seems to be inefficiency and the need for resource to drive things forward. TechDis's achievements are significant, especially when one remembers that the visually impaired are really just a small part of their overall brief. Expecting TechDis to do the job of liaising with publishers and promoting best practice in all education sectors on their own is simply not sensible. The researcher has sometimes speculated that some ongoing presence of disabled students in an official organised form would move things forward.

The relative inefficiencies in universities mean that when it comes to accessing the curriculum there is a postcode lottery. The RNIB's position that it should not be expected to have a role in educational alternative format issues beyond a campaigning one might be understandable; it is legally, and one might reasonably say morally the responsibility of universities to play their part in assuring the visually impaired gain access to the curriculum, but is it an accident that those universities which provide optimal services had training from the RNIB?

Because publishers are not legally obliged to engage with accessibility, or not unambiguously, relationships are essentially voluntary. It is hard to imagine what else could be tried of a voluntary nature, apart from reiterating the point made earlier about direct contact between visually impaired people themselves and publishers, and perhaps a more forceful representation on the issue from JISC as a body, not just TechDis; As stated, TechDis's achievements are significant, while JISC as a whole seem to have been silent. If what has been achieved seems inadequate, then the issue of law becomes unavoidable.

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9.3 Publishers and equality legislation

As noted at the start of the chapter, the visually impaired's case is essentially based on notions of human rights, and apart from certain issues with the publishing industry's technological base, it is intellectual property concerns in various forms which are blocking a human right to read. What is the proper balance between the human right to access to information and legitimate business interests? Dr. Alicia Wise put the same question another way at the 3 Pp. conference in July 2009: "*Is access to books a right, or a privilege?*" Her answer was that it was a need[7].

As was demonstrated in Chapter 7, there are those who think it is a privilege (Price 2007, p.2), and Ron Stewart, head of the NIMAS Project, reported that even academic publishers resent any attempt "To tell them what to do with their intellectual property[8.]" The researcher's view is that the idea that reading is somehow a privilege, even for those who have paid for a copy of a book, is not really worth considering at any great length. But how should the law balance human rights and intellectual property rights?

The researcher's view is that the way law based on human rights should be applied to the publishing industry should differentiate between academic and non-academic publishers. Those who sell their books to universities and other educational institutions are making a statement that the book in question contains knowledge of value to any student of the subject. Therefore even if the knowledge in that book remains a publisher's intellectual property to exploit in terms of making further money out of it, in another sense it is public intellectual property and attempts to defend practices which obstruct access to knowledge in a book, and which therefore lessen a student's ability to perform well on a course, can be argued to be discriminatory. In other words if education is a human right, then that must mean the best education that is technologically possible, not a watered down version of it.

None of the other arguments listed in Chapter 7 against a change in the law really impress. The argument made at the roundtable discussion by Jim Russell, that it would put people's backs up, may have a degree of truth; but as stated earlier, the current situation is annoying plenty of people. It would be a pity if a change in the

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law was seen as somehow punitive, because some publishers are doing a lot to help, but since others are not something more is needed. This also answers Clare Hodder's point about publishers looking for solutions.

Russell's point made at the roundtable discussion described in chapter 7 that legislation is a blunt instrument is a good one, and the lessons from the NIMAS project certainly need to be borne in mind. Effectively forcing publishers to generate scaled-down DAISY books which are too big to transmit and too high-tech for schools to use has not been a success. Nevertheless it is equally important to remember Ron Stewart's assertion that it was a good job that publishers were brought under the auspices of a law.

It might be the case that when it comes to access to books, what many visually impaired activists regard as a weakness of current equality legislation, that it only requires reasonable adjustments, might actually turn out to be a strength. If the DDA, or the new Equality Act, was extended to encompass academic publishers, or if in fact it does but provisions were clarified, then publishers would be required to make reasonable adjustments to ensure that the visually impaired could access their content. Much of what that reasonable adjustment would consist of would be left up to the publisher. If, for example, publishers were not happy about content leaving their servers, they could still meet the requirement to make a reasonable adjustment by providing HTML versions of their books as Pearsons have. If, on the other hand, a PDF was the best a publisher could produce, this again could be counted as a reasonable adjustment, though just handing over a file of a book should not be enough; here it is important to remember what respondents to the questionnaire said about it being quicker to record books from print than to process badly-formatted PDFS. If a PDF is the best a publisher can manage, that should be sufficient in law, at least for now, as long as that PDF conformed to accessibility standards. Either way, the reasonable adjustment could be made to fit the publishing house's technological base.

There are of course publishers who still do not sell ebooks. What might a reasonable adjustment look like for such companies? At the very least archival practices should be brought under the auspices of equality legislation; if they are not then the

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problem of books only appearing in print and the expense of scanning them outlined in chapter 7 will never disappear. Huw Alexander's comment that many publishers cannot afford to keep repositories is a curious one; after all it will not have been only those companies planning to market ebooks which will have digitised their catalogues as a precautionary measure against developments in the Google book settlement. If companies can archive files to be well-placed for developments in Google, they can archive for accessibility too. No doubt it might cost a little, but then there are many examples of where concerns for the public interest have incurred expense on industry; no doubt if McDonald's were allowed to ignore hygiene regulations they could make more profit, and that profit might be very useful to the Treasury in the short term, but nobody would seriously suggest that McDonalds should be exempt from hygiene regulations. In the researcher's view the same principle applies here, and even more so since academic publishers are not just operating in the public domain but in the public sector. If a publisher really could not sustain the expense of an in-house archive, they could at least deposit a file in a repository of some sort.

This notion of an accessibility-dedicated repository is an important one, whether one considers it as part and parcel of legal reform or as a compromise solution between leaving the system underpinning access to the curriculum as it is and requiring publishers to produce alternative formats in-house. The obvious questions surrounding a repository are those of where responsibility for such a repository should lie and funding. The issue of funding is also linked to what exactly a repository should hold.

It is instructive to compare the fates of the Lookup service launched by TechDis and Revealweb, two websites which acted as "pull" repositories (in other words repositories which tell people where material can be found as opposed to storing that material). Lookup represents the main attempt to improve the efficiency of contact between support workers. Because it has JISC's backing and because the maintenance of Lookup forms part of someone's job description, it continues to have a valuable role. Revealweb's fate illustrates what happens when a website does not become part of a particular person's responsibility. It looks like the attempt of a few enthusiastic individuals to make a difference, as indeed Owen (2007) said it

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was, but one into which the majority of potential stakeholders did not buy.

This means there is a question mark over the notion of repositories purely as a compromise solution. To work they would need official backing from interested parties, ranging from support workers to JISC, who would have to build maintenance of such repositories into their working practices. The best way to achieve this would be some government initiative, even if such an initiative might not be on the cards at the moment. But even if such a move was imminent, what should be stored and how should a repository be funded?

At the very least a repository containing material that has already been made accessible should be set up. Any outlay of money at the start would be earned back by the elimination of duplication of effort in universities that a repository would achieve, and also by providing a means of migrating accessibility backwards into publishers' in-house processes; publishers could examine material in the repository and see how complicated parts of a text were rendered accessible, and then the next time an edition of the book was brought out or a similar piece of text was being edited, they could either rework the relevant part of the textbook or even just cut and paste material from the repository into an appendix.

It is open to question whether material should remain on university servers and the repository take the form of a catalogue detailing what can be found where, or whether material should be physically moved into one central place. The main advantage of a "pull" repository is that it is almost certainly cheaper, but the disadvantage is that even if someone knew that, for example, Durham University had made a particular book accessible, contact details for the relevant person would have to be kept up to date and a request might arrive at a time when the relevant person was away (Chapter 7 did show that many universities rely on temporary and part time staff). A push repository would be more expensive initially, but would have the advantage of effectively providing a one-stop shop service, but, notwithstanding the savings to publishers of depositing a file in a central repository once instead of sending it out several times, things start to get complicated if it starts holding whole copies of books and files from publishers.

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Partly the issue is one of scale. Even if one worked on the basis that a repository should only hold an accessibility-standards compliant PDF, the question arises as to how many books a repository could economically hold. One could reasonably argue that ebooks aggregators should share the burden by storing material, but it is perfectly possible, if not probable, that a university might hold a print copy but not subscribe to an electronic copy of the book from the aggregator in question. One could argue in such a case expecting a visually impaired person to pay for an account with the aggregator was discriminatory because the visually impaired student would be being expected to pay for something that a sighted student would not. Even if this was got round with free accounts, having to locate copies of books scattered between different aggregators is not necessarily the best way forward.

Much will depend on how accessible protected Epub books really are when Adobe declares them accessible. Even if they are fully accessible in the technical sense, the issues will be how usable they are, and also the time-out DRM which even now impedes students who are slower. Further questions would also be the extent to which policy makers decide they want the same source of provision to meet the needs of all potential users of alternative/electronic materials, because if they want all potential users to benefit from a copy then building access to screen readers and magnification software will not be enough, as some people with dyslexia and learning disabilities need a more natural voice than assistive technology can deliver. All the literature on e-learning emphasizes the need for content which can be treated flexibly.

Certainly the approach suggested by Bookscholar, that of a dedicated company operating under JISC's auspices and financially supported from subscriptions from the DSA purchasing books from publishers and generating the alternative format version of the book and undertaking to maintain a fully accessible site, would need to offer its services to people with all kinds of reading impairments to earn enough money from subscriptions to survive. It would also need a change in culture in university learning support departments and disability assessors who have fairly fixed ideas on the effectiveness of existing assistive technologies. Nevertheless, the Bookscholar approach is far and away the best attempt at making a repository to hold publishers' books in alternative formats financially self-sustaining.

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If cultural inertia or lack of funding prevents Bookscholar from getting off the ground, then international developments may yet provide the basis for an accessibility-dedicated repository which could help meet the needs of visually impaired students in the UK. There is a theoretical possibility that the DAISY Consortium might achieve its dream of a global accessible library and bookstore. Their chance might come through winning enhanced exceptions, or it might be that the WBU drops the push for exceptions in return for the funding needed for an accessibility-dedicated repository. Alternatively, now that the books people at Google have the researcher's idea of a repository for content made accessible and for publishers' files[9], they may decide to pursue the idea.

All one can do is list these ideas as possible approaches to an enhanced system underpinning access to the curriculum and list the advantages and disadvantages which one can deduce from the evidence amassed so far. One cannot predict political developments, and even deciding between those approaches which could start to be taken immediately need further research to see what would actually work in practice.

But does the same human rights argument apply in the case of trade books? Is there really a human right of access to the latest airport thriller, and if there is, say through article 30 of the United Nations Convention on the Rights of People with Disabilities, does it exist on the same level as access to a book needed to qualify for a profession? Certainly one can argue that defending DRM while knowing full well that it blocks assistive technology is discriminatory, but is obliging a company such as Atlantic Books to provide a DRM-FREE file on a case-by-case basis really the best way forward with such companies, and can one really place on such companies the same obligations of co-operating with accessibility projects as one might on companies like Pearson's?

In fact the real gap in equality legislation as it applies to access to trade books is that manufacturers of goods and therefore of ebooks are not covered. Much of the heat could have been taken out of the argument if Amazon and Apple had been obliged to build in certain levels of accessibility into their products at the start. Bringing the

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manufacturers of goods under the auspices of equality legislation is a highly
complex topic, and will no doubt feature in arguments amongst the disabled
community and in disability research in the future, but for now given the work
already done on copyright exceptions and the obvious way in which these need to
be enhanced (by for example extending them to those with all kinds of print
impairments), continuing to pursue copyright reform might be the best way forward.
So which articles of the WBU's treaty should progress in a UK setting?

9.4 Copyright reform and the activities of the WBU and the DAISY Consortium

The first half of Article 4, extending exceptions to all reading disabilities poses
some interesting questions, some of which are beyond the scope of this research
project which deals with the blind or severely sight impaired, but since it has
emerged that linking these communities together is potentially of great benefit to
visually impaired UK students, a few comments are justified. It seems an anomaly
that certain reading impairments (specifically dyslexia and people with learning
disabilities) should be excluded from the freedoms that the RNIB now have, and
Listening Books, which aims to serve people with all reading impairments, certainly
suffers from having to effectively exist under a licensing regime. On the other hand,
there is Amazon's (2009) claim that the Kindle 2 has been a "breakthrough device"
for people with dyslexia and learning disabilities, which suggests that the market is
finally beginning to address the needs of people with these reading impairments,
and it is interesting that the UK Right to read Alliance and TechDis have at least
considered the possibility that effectively taking literature production for such
people into the realm of exceptions might discourage the market from developing its
own solution. In the US, because of the Department of Justice ruling and because
Amazon and Apple are keen to corner the education market, this is not really a
danger, but in the UK where only guidelines exist, it is.

Of course the main evidence that the Kindle 2 has been a breakthrough device is
Amazon's (2009) claim (in a small press cutting posted on their accessibility blog),
there is no formal research or declaration from organisations representing people

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with dyslexia or learning disabilities that it really is, and of course Amazon have an interest in talking up any positive feedback. Whatever might be best for the visually impaired from a tactical point of view, people with dyslexia and learning disabilities in the UK are suffering right now. If the same freedoms enjoyed by organisations like the RNIB could be achieved by licensing arrangements, thus freeing up organisations like Listening Books, this might be an acceptable holding position pending further developments and research.

As noted in Chapter 6, the most relevant part of Article 4 to the visually impaired is the second half of the article which would allow for-profit organisations to make books available under exceptions under carefully controlled conditions. In the academic realm this would allow ebooks aggregators to offer safe access to DRM-FREE content without renegotiating their licenses with publishers and ease the working practices of ventures like Bookscholar. It would also allow Google to consider starting an accessibility-dedicated repository. In the area of trade publishing it would allow ventures such as the Google book project to become part of the accessibility eco-system.

It is a well-crafted exception, and in the researcher's view, one of the most tactically astute parts of the treaty, as it tries to involve companies in a race to be the first ones to deliver accessible product. In other words, if publishers want to make money from visually impaired customers, they will have to deliver accessible product ahead of some other enterprise and adjust their technological and marketing practices accordingly. It is therefore easy to see why publishers might oppose it; they would be worried that someone might get in first and effectively end up being in competition with them.

Then again, Chapter 5 suggests that publishers are some considerable way off achieving any real accessibility offer. Even if the ebook is regarded as the great includer and the best way forward for accessibility, one has to point out that if publishers continue their habit of delaying the release of the ebook till well after the print version, then the visually impaired would still continue to be at a disadvantage in accessing books (it could well be regarded as a form of indirect discrimination, that is not deliberately setting out to treat visually impaired people worse because of

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their disability, but still pursuing practices which have that effect). There is also the point that if Russell is right in his assertion that the question underpinning all accessibility issues is "Who's going to pay for it[10]", then allowing the private sector to play a part in delivering solutions and leaving them free of the obstacles which existed before the Copyright (Visually Impaired Persons) Act came into force would be a positive move. The only thing that could remove the need for it would be if publishers began marketing all of their titles through organisations like ReadHowYouWant.com or BLIO, and that does not seem likely at the moment.

While Article 4 has pros and cons, in the researcher's view no such complexities surround arguments over Article 6 which would legitimise the circumvention of DRM to enable a visually impaired consumer access to a book they have legally purchased. The argument that it might enable piracy is not good enough, not because piracy does not happen (it clearly does), but because since any DRM can be hacked there is no point in denying the visually impaired the legal right to do so under carefully controlled circumstances. In all likelihood, the people doing the actual breaking of the DRM would be either learning support workers in universities or some organisations like the RNIB. In either case those providing this form of assistance are not going to post the book on the Internet, and if the customer did so they would most likely be found out, especially if Internet service providers are to be legally required to take down illegally posted material. In the researcher's view, if one regards the fact that this exception is in force in the US as acceptable, then trying to justify the lack of such an exception in the UK is untenable.

Arguing that making ebooks accessible by other means (for example, by making the Kindle fully accessible and/or making Adobe Digital Editions books accessible) would remove the need for the exception does not work either. It is not feasible to build accessibility into every DRM system, and the next technological leap, wherever it comes from, runs the risk of creating the kind of digital lock out that exists at the moment, even if completely unintentionally (this of course, is how all the arguments surrounding the current technological set up have come about). An exception allowing the bypassing of DRM for accessibility purposes by trusted intermediaries is an important, in the researcher's view absolutely crucial, aspect of future-proofing accessibility.

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The best way of allowing the movement of files over borders to facilitate the production of accessible literature is not quite so clear-cut. The principle itself seems to have been conceded with the drawing up of a memo of understanding in the EU. However memos of understanding can be withdrawn unilaterally, so the WBU will continue to push to allow cross-border transfer under exceptions, even if via trusted intermediaries. It is important that they do to eliminate the duplication costs associated with different libraries for the blind producing the same book in different countries and to allow visually impaired people in the UK to benefit from US catalogues of accessible books.

Without data from the pilot project on the cross-border transfer of files, one is left with little that is really concrete to go on. Perhaps the onus is on those who oppose an exception and prefer other routes such as memoranda of understanding to show why an exception is less desirable; after all print moves across borders and not always with reference to law.

Considerations such as these might well indicate that the researcher's notion of trusted intermediaries becoming holders of intellectual property invested in the DAISY format might be the least complicated way forward. Organisations like the RNIB would be given the freedom they are looking for to move files and thus avoid duplication of effort, and such an approach would co-opt the norms of the intellectual property system and make them work in the visually impaired's favour instead of against them. Some attempts at improving access discussed in Chapter 5 have entailed organisations becoming something very close to intellectual property holders; for example if ReadHowYouWant.com are entering into arrangements that entitle them to share royalties on sales from alternative format versions of books they generate, then even if they are not technically defined as intellectual property holders, they are behaving as if they were.

If the sharing of royalties model and protected ebooks become the norm or an exception allowing the circumvention of DRM is granted, then there will be two categories of accessible books, those being produced in conjunction with the industry and the legacy stockpiles which charitable organisations will have built up

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over the years, almost certainly with some overlap between the two. Becoming holders of the intellectual property in their stockpiles of books might be the easiest way of keeping these legacy stockpiles free to move.

9.5 Ebooks

Much of the evidence gathered in the early stages of this research, and even evidence collected towards the end of 2009 seemed to confirm the view that securing access to mainstream ebooks was the only way to gain anything like access on a massive scale and ultimately to the book of an individual's choice. With publishers confirming that they intended to get to the point where an ebook appeared at the same time as the print edition, and with Amazon and Apple needing to crack accessibility in order to gain access to the US education market the future seemed ultimately a bright one. The growing tendency of publishers to delay the release of an ebook to protect hardback sales does not overturn this, but it does emphasize how easily accessibility can adversely be affected, and it is another piece of evidence for the view that it is not technology which is ultimately the problem but commercial interests.

There can be no doubt that a fully accessible ebooks device which emerges from the ebooks device wars as one of the winners will be of great benefit to the visually impaired community, or at least to those who can afford to buy one. The answer to the question of whether one particular device was better to chase than the other seems to be no, as long as publishers continue to pursue the policy they described to the researcher of not wanting to be tied into deals whereby they are only allowed to release books on one device. At this writing the Kindle has access to many more books than the IPad and the iPhone and the tactile controls will be easier for those to use who don't like touch screen, but its disadvantage is that accessibility is always retrofitted. The iPad has the advantage that Apple's practice of building accessibility into future versions seems more embedded into company procedures, not least because accessibility centres around Apple's screen reader VoiceOver which is enhanced alongside the Leopard operating system, but it suffers from having access to significantly fewer books, and those who cannot use touch screen technology will have to purchase extra keyboard to interact with the device. The US

Department of Justice's ruling means that one can reasonably hope that the Kindle and the iPad will become fully accessible eventually. For the same reasons the iPhone may become fully accessible as well; even if it does appeal mainly to the technological elite amongst the visually impaired community, it should not be discounted as a point of access to books, particularly if mainstream customers decide that the iPad has nothing to offer that the iPhone has not and stop buying it.

Of course the usefulness of any ebooks device does depend on the dispute over text-to-speech functionality being settled in a way acceptable to all parties. It would be interesting to see whether the Authors Guild takes a similar stand on Apple building VoiceOver into the iPad or iPhone.

The comments of the lawyer Alexander Ross quoted in Chapter 6, namely that as the law stood the visually impaired would be allowed to take unilateral action to have the Kindle's text-to-speech function enabled for a book, are intriguing but are not really any basis for a settlement. At first the idea that sighted people would be prepared to listen to an entire book using the Kindle's text-to-speech struck the researcher as hard to believe, the implication being that the Authors Guild's statement that it constituted a threat to the audiobooks industry and their accompanying legal action was equally hard to accept. The fact that the Authors Guild stopped opposing the text-to-speech on the grounds of copyright and proposed a solution based purely on money suggests that they might have realised that they were legally in the wrong and that their actions were aimed entirely at fending off what they perceived, rightly or wrongly, as a potential threat.

However the fact that the head of Waterstone's ebooks operation thought that the text-to-speech function might sell more ebooks because sighted people could get through them more quickly, for example while driving, might appear to contradict the view that ebooks with text-to-speech enabled are not a threat to audiobooks, though whether his view is based on sales figures and customer research and held by other retailers must remain doubtful for the moment. Publishers would of course benefit through increased ebooks sales, but whether that would equate to estimated profits resulting from sales of a traditional audiobook, and whether the same rights holders would benefit is another matter.

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The settlement with Hachette whereby the text-to-speech is enabled for all books unless a full-length version has been produced might seem ideal as it appears to balance the interests of both sides, but in the researcher's view it is problematic. Under the terms of this settlement, blind Kindle owners would be forced to buy the full-length audiobook, which, by definition, would be much more expensive and, once again, this could be regarded as a form of indirect discrimination. The evidence also suggests that the kind of people who prefer human-narrated full-length audiobooks tend to be different to those who adopt the approach that synthetic audio will do as being the only way to get access, or at least in the visually impaired sector they are. Even if there were overlap between the two, there are marketing opportunities for full-length human-narrated audiobooks which do not really apply to ebooks with synthetic speech attached, e.g. they can be bought as gifts.

The exact nature of the legal situation is probably not clear to anyone; even if the Publishers Licensing Society's view holds, that vendors need the electronic and volume rights to enable text-to-speech, this does not settle arguments over how this relates to exceptions in the Copyright (Visually Impaired Persons) Act. From a purely practical point of view, the researcher can see no difference between reading a PDF or Word version of a book with the aid of a screen reader like Jaws and listening to a book on the Kindle. Technically there might be an issue if a traditional audiobook existed and if the Kindle's version of the book with the text-to-speech was defined as an audiobook. In the researcher's view an audiobook is a performed version of a written text, and the Kindle's version of a book is an ebook with an audio feature added. The way audiobooks are spoken about by audiopublishers and by reviewers suggests that the industry knows this is the case, and it was particularly interesting that Canongate strongly agreed with this. In the researcher's view, nothing but the full enabling of the text-to-speech is really acceptable, though even here there is a caveat to the effect that if the text-to-speech really did negatively impact human-narrated audiobooks, it would be a real pity as the younger visually impaired population would be gaining at the expense of their elderly counterparts.

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The prospects of building the ability to process mainstream ebook formats into media players currently used by visually impaired people are not so clear. As was noted in Chapter 6, dates by which this was supposed to have been achieved have continually been put back. There have also been significant barriers, such as the processing power required by Adobe's DRM, and the charges that Adobe initially made for license keys. It could be argued that this aspect of accessibility was the most important of all, as it would mean that visually impaired people would not have to buy a mainstream ebooks device, the accessibility of which will in all likelihood, in the short to medium term, be patchy. On the other hand, towards the end of this project, the researcher noticed an upsurge in the number of people expressing views on e-mail networks that the whole notion of access technology was, and indeed should be, on the way out; these e-mails expressed along the lines that visually impaired people should abandon Microsoft and highly expensive traditional access technology and embrace Apple technology instead. The demise of traditional access technology seems unlikely in the short to medium term; however if companies like Adobe are to be allowed to charge for license keys, then building accessibility into traditional access technology will soon become financially unsustainable. If building full-blown accessibility into mainstream ebook formats and reading devices of the future at the start of the product's life really is impossible, then at the very least they should not be allowed to charge assistive technology vendors for license keys (based on the findings of this research project, see section 6.4.3 of Chapter 6, this could be a pragmatic way of bringing manufacturers of goods in the ebooks arena under the auspices of equality legislation).

9.6 DAISY

At the moment it seems that DAISY as a format will struggle to break out of the narrow confines of the disabled community and into the mainstream, or at least in the realm of books. In the higher education sector it is not even featuring as a format requested by visually impaired students; the fact that students are arriving at UK universities without having even heard of DAISY is a notable finding. However DAISY as a technology which generates all required alternative formats can make a real contribution in the education sector because it would speed up the production of

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materials in alternative formats and thus lead to savings both of time and money. In the long-term it is the DAISY Consortium's work on the .epub standard and its links with the industry that might make the most lasting contribution to accessibility. The reality of the consortium's position is that it is looking for a role, and the interview with Stephen King and Peter Osborne suggests that the consortium is aware of this and is looking for a role: "We're a subscriptions-based organisation - people want value for money, especially in economically hard times like these."

Making the DAISY consortium the industry's key partner on accessibility has five important advantages. The consortium has large industrial backers like Google, Adobe and Microsoft, and so can deliver on a large scale. As an international organisation it can provide UK publishers with a channel to a much larger market than just visually impaired people in the UK. Daisy, when viewed as a technology that generates all alternative formats, means that the consortium is well-placed to deliver material which can be read or played on media players which have been particularly designed for the blind, and which must therefore be at least as important an aspect of access as gaining access to devices like the Kindle, at least in the short to medium term. Another advantage is that the consortium has visually impaired people in key positions, which in turn means that visually impaired people will be meeting with the industry, rather than sighted people negotiating on the visually impaired's behalf as happens in the UK. Finally having been appointed as steward of the Epub standard, the consortium has a real presence and can try to influence the industry's production processes in such a way that accessibility is built into them more and more. In the long term this is obviously the way to guarantee access to mainstream ebooks.

9.7 Website accessibility

9.7.1 Online bookshops and Overdrive websites

The benefits from ebooks and access to websites go hand in hand. The evidence has revealed an ironic situation, in which one of the most accessible websites, ebooks.com sells currently inaccessible content, while websites which are supposed

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to be about accessibility such as ReadHowYouWant.com were set up in a very user unfriendly form. Kelly issued a warning in his talk to the 2009 Techshare conference, in which he re-stated his position that over-reliance on a standards-based approach was unwise, to the effect that any suit on accessibility might meet with a counter argument that even the RNIB's site had not met "AA" compliance, undermining the validity of any suit.

As stated in Chapter 8 the sample size for the accessibility test of Waterstone's and W.H. Smith is far too small to use to draw conclusions on the validity of guidelines and the dispute mentioned in the literature review and Chapter 8 over which particular guideline should be under the heading of "A" compliance, "AA" compliance etc. They are, however, evidence that a one-size fits all is not necessary, and that the key is avoiding design features which put unnecessary pitfalls of a primarily technical nature in a visually impaired user's way. The fact that Waterstone's ebooks site breaches some of the guidelines highlighted in the accessibility policy on the site suggests that either accessibility guidelines are not consistently communicated throughout the organisation, or perhaps more likely, that they are not looked at when new sections of the site are added (presumably the ebooks part of the site would be an add-on to the original site).

If developers do look at the accessibility guidelines when adding WebPages to the site they are obviously prepared to let some things pass, as even testing the accessibility of the site with automated tools would have warned the developer that there were breaches. On this point it is interesting to note that Alistair McNaught of TechDis has been in intermittent contact with Waterstone's from October last year, and yet continuous monitoring of the site by the researcher throughout the period of this research project reveals that no accessibility changes have been made.

In the researcher's view it is fortunate that the law does seem to cover websites and that the visually impaired have this as something to which they can ultimately resort (in this respect relations are less unequal than those with the publishing industry). The fact that some developers are sending messages around networks asking how they can dodge past some guidelines whilst achieving a higher accessibility score tells its own story. In general although it would be easy to take the unhappiest

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responses from the accessibility survey of Waterstone's and W.H. Smith and draw some gloomy conclusions from them, there is still reason to hope that accessibility to retail online bookshops should ultimately turn out to be a success story due to a combination of law, ongoing contact between the RNIB and TechDis and retailers (though here it should be said that contact between the visually impaired and developers might be preferable) and finally the relatively small number of relevant sites.

However if OverDrive does expand its activities in the UK the number of sites will be considerably more than just a handful of commercial bookshops, meaning that accessibility will have to become much more embedded into organisations' procedures. The entry of competing platform providers who may think they are accessible when in fact they are not is a further complication.

Obviously Work done on OverDrive sites as part of this project was very limited. However experienced the researcher is in looking around websites from a user perspective to assess them for accessibility, the results of this aspect of the research are only useful in that they provide a snapshot of the accessibility of overdrive platforms at the early stage of their emergence into the UK; the usual caution is needed when drawing any conclusions based on small samples. It was disappointing to find such obvious accessibility breaches on Overdrive platforms built for UK libraries. There seems no easy answer to the question as to why such care and attention was given to describing the graphics which show what device a book can be played on and other terms and conditions relating to a title, and yet such basic guideline breaches as unlabelled buttons on a home page can go uncorrected. It is fortunate that as official bodies libraries are covered under law, but unless Share the Vision begin work with libraries on accessibility and without a cultural change in libraries and a greater openness to digital media there will always be the possibility of the situation arising where a visually impaired user tries to make use of a library site and cannot. If UK libraries are not fully at home with digital media for sighted users, then how will they cope with accessibility issues? Equally the fact that US libraries have managed to put together so many websites which visually impaired users find difficult or impossible to use carries a warning.

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9.7.2 Academic ebooks platforms

Again research on this topic is at a very early stage, and samples in this research project have been small. For all that the most disturbing finding on web accessibility is the relatively low level of usability associated with ebooks platforms put together by aggregators in the academic world. It is true that the DRM which allows only one page to be shown at a time is the same as the DRM used for auditing purposes and that this does make it difficult for aggregators, nevertheless some of the difficulties do not relate to this aspect of constructing the site. It does show that testing by librarians who have an interest (or responsibility) is no substitute for user testing. The state of these platforms has led the researcher to wonder whether instead of enshrining certain technological standards the law should enforce mandatory user testing, but though this is now feasible with the entry of the Shaw Trust into the arena a complete absence of standards is as dangerous as over-reliance on them.

So which standards should TechDis recommend to aggregators? Because most aggregators started in the US, they were required to adhere to Section 508 of the Americans with Disabilities Rehabilitation Act, but these are different in some ways to the WAI's guidelines in force in the UK. Most people agree that the WAI guidelines are more robust, but since Section 508 is being strengthened it might be worth waiting to see whether the WAI guidelines or the refreshed version of Section 508 would deliver the highest level of accessibility. This is all some while off, and no doubt will be the subject of a fresh burst of research on web accessibility.

As stated above, an exception allowing the bypassing of DRM or allowing for-profit organisations to provide accessibility might get round the problem of text being displayed one page at a time, but this will not happen in a hurry. It may be that if the Bookscholar idea takes off, universities may decide to subscribe to that as a pragmatic solution at least for the short to medium term, but again this will take a while and presumably Bookscholar will have to produce research findings to show that visually impaired people really do find their service usable. Since all aggregators are starting to look at accessibility seriously and since MyiLibrary is even looking at DAISY one should wait and see what comes out of this. After all

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existing aggregators will certainly be able to deliver accessibility to many more books than Bookscholar would in its early days.

It is fortunate for the visually impaired that even sighted users find existing ebooks platforms difficult, because this will give aggregators an incentive to improve things, another example of the interests of the visually impaired being most likely to be looked after when they coincide with those of the mainstream. Likewise the rise of mobile learning may well turn out to be the best solution to the clutter that is likely to develop on aggregators' sites as each platform races to provide more features than their competitors. The idea of running a separate, scaled-down version of the main site for mobile phone users and the visually impaired is a good one, as it builds on existing practice and again links into aggregators' existing interests, rather than having accessibility as an extra thing to be bolted on.

For all these signs of hope it is concerning that some of the breaches of accessibility guidelines that have been found could have occurred. Ignorance is no real excuse, as it cannot really be argued that accessibility good practice is not generally in the public domain. Even if web developers had not seen a visually impaired user navigate a site, there has always been plenty of advice to be found and the guidelines have been in existence for some considerable time now. Time will tell if existing relationships can deliver a better situation or whether a more forceful approach becomes necessary.

Endnotes

[1]. Guy Whitehouse telephone interview with Michael Bhaskhar, head of Pan Macmillan's ebooks programme, 12 January 2009.

[2]. Guy Whitehouse telephone interview with Ben Ottridge, head of Summersdale's audiobooks and ebooks programme, 30 January 2009.

[3]. Guy Whitehouse informal telephone conversation with Clare Hodder, head of Rights at Palgrave Macmillan, 30 September 2009.

[4]. Text in italics here and subsequently indicates quotes from interviews, informal conversations or e-mails.

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[5]. Guy Whitehouse interview with Stephen King and Peter Osborne, UK representatives of the DAISY Consortium, Royal National Institute of Blind People, Peterborough, 21 February 2009.

[6]. Guy Whitehouse discussion with Alistair McNaught, Techshare conference, Excel Centre, London, 17 September 2009.

[7]. Dr Alicia Wise, speech to p3 conference, 16 August 2009.

[8]. Guy Whitehouse telephone interview with Ron Stewart, head of NIMAS initiative, 18 August 2009.

[9]. Guy Whitehouse e-mail to Julian Harty of Google, 16 December 2009.

[10]. Jim Russell, roundtable discussion at the Publishers Licensing Society, London, 5 October 2009.

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Chapter 10 Conclusions and recommendations

When investigating events which are continually unfolding definitive conclusions and recommendations are not always possible; in some areas one runs the risk of making recommendations which seem sensible now but which are overtaken by legal or technological developments, while in others more evidence is needed. Nevertheless some conclusions can be reached, and in those areas where doubt remains, one can definitely recommend certain ideas as being worthy of further research.

10.1 The accessibility landscape

In the absence of a fully accessible ebook the visually impaired gain access to a fraction of trade books that are produced; the larger the number of books the industry produces, the lower the accessibility rate will be, at least in the current system. If one uses the term "accessible" in an absolute sense, that is made available in every alternative format, then the accessibility rate achieved by entities operating legally is much lower than 4.5%. Internet-based self-help groups operating on a legally ambiguous basis are making more material accessible to those with a computer than Internet libraries operating within the law, meaning that technologically literate visually impaired people stand a better chance of accessing the book of their choice illegally. This is particularly the case for those who are interested in midlist titles, since a book selection committee such as that which exists in the RNIB is always likely to focus on transcribing best-sellers.

The charitable sector could achieve better results by combining its efforts; there is a certain logic in Calibre Audio Library and the RNIB making the same book accessible as long as their customer bases are different but greater efficiency could be achieved through some sort of merger. The former National Library of the Blind and the RNIB merged in this way with efficiency benefits, and it makes most sense for visually impaired people to access one central catalogue of books.

Another example of inefficiency is the way in which technological development has

been duplicated in different companies. BLIO, ReadHowYouwant.Com and Bookshare are different enterprises with differing rationales and underpinnings, but the conversion technology generating alternative formats must be similar, and there are yet more companies like Dolphin offering such technology. One has to ask whether this is a proper use of scarce resources.

Public libraries seem to be the main part of the third sector which could contribute more. Although it has been a key market for unabridged audiobooks, it is open to question whether this ought to remain its primary mode of service to the visually impaired community. The fact that public libraries have been involved in the kind of transcription work traditionally done by the RNIB, on however small a scale, shows that libraries can undertake this work, which in turn raises the question why more libraries should not. One could at least make the argument that this might be a more efficient way of meeting visually impaired people's reading needs than the traditional model of buying or subscribing to audiovisual material, particularly if libraries decide to treat print impaired members as one large group rather than as a number of sub-groups. There is also the point that a localised or regionalised transcription system stands more chance of making a book of choice accessible than a centralised one. Once the final report on the NEALIS project has been published, further research on this topic would be timely.

The industry's main contribution to accessibility seems to be the audio download market. Once ebooks become accessible they will provide a much higher level of accessibility than audiobooks, though the practice of delaying the release of the ebook to protect print sales is a complicating factor. Third sector organisations may soon face difficult decisions as to whether to start transcribing a book or whether to wait to see if an ebook is available; no access at all may soon be replaced with delayed or complicated access.

The accessibility rate in higher education is much higher due to a combination of various factors, specifically a considerable outlay of resources through the disabled student's allowance, the efforts being made by some academic publishers in conjunction with JISC TechDis and legal requirements placed on universities. Nevertheless the research shows that the system underpinning access in universities

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is patchy and not robust, despite JISC TechDis's efforts; indeed Chapter 7 reported cases of two students who seemed to be operating outside of any system, even though their university would have had a department tasked with supporting disabled students. The system is certainly expensive and wasteful with much duplication of effort. The figures relating to the cost of transcription, though illustrative, strongly suggest that a central repository would lead to considerable savings both of time and money. The Bookscholar enterprise is certainly worth following and valuable lessons could be learned from studying what becomes of it.

10.2 Stakeholder relations

These appear to have been at their most effective in the higher education sector despite the fact that this research has uncovered plenty of evidence of a negative attitude on the part of support workers towards publishers and a lack of engagement on accessibility from some publishers. It is important not to lose sight of the progress made, such as the license which now allows institutions to share material they have made accessible and the lookup service. JISC TechDis have achieved a remarkable amount with scant resources. There remains however much to be done, such as strengthening contact between learning support workers in different universities so as to enable the easier spread of best practice. JISC TechDis could perhaps increase skill levels and best practice amongst support staff by means of one-day training events highlighting the most up-to-date technology rather than concentrating solely on promoting the lookup service or leaving training materials on a website and leaving support workers to find it. There is also the need for someone to drive accessibility forward in the industry.

Relations outside of academia between the industry and advocacy groups in the UK have been greatly complicated by the fact that they have been impacted by international considerations both at European Union and WIPO level. Yet joining forces with visually impaired advocacy groups abroad has certainly turned out to be worthwhile. Undoubtedly the legal victories relating to the Kindle and Adobe's read out loud function won by the American National Federation of the Blind are of considerable significance to the visually impaired in the UK. Anyone who doubts this need only consider how long the Kindle and Adobe ebooks have been around

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with next to no progress on accessibility being built into them, and then contrast that with Amazon's and Adobe's promise to resolve accessibility issues within a year of legal decisions going in the visually impaired's favour.

One cannot comment on the effectiveness or otherwise of ongoing exercises such as the pilot project on moving files and books over borders and EditEur's initiative on rolling out a technological framework to enable publishing houses to generate accessible content themselves. One can only comment that it is a purely voluntary initiative (publishers cannot be compelled to participate) and point out the obvious danger that such an initiative will only reach those publishers who are already interested.

10.3 Legal reform

While licensing arrangements have brought about some necessary changes, particularly allowing institutions to share material they have made accessible and enabling people with a broader range of print disabilities to benefit from those license terms, these changes seem to have behind them the same mindset that Joint (2006) complained about, namely the idea that the way forward is to ease the conditions that support workers and organisations like the RNIB have to work under while avoiding placing unambiguous legal obligations on publishers. Three key reforms are needed.

DRM: the Copyright Patents and Designs Act should be amended to allow DRM which interferes with assistive technology to be bypassed to the extent that it enables an assistive technology user to access a legally acquired protected work. There is no need to wait for the WBU's treaty to be ratified at WIPO and EU regulation does not require uniformity of practice on this, so the UK can act unilaterally. Enacting such a reform at a national level would not slacken UK advocacy groups' commitment to pushing the treaty and enabling the visually impaired in developing countries to benefit from greater access.

An exception allowing the circumvention of DRM might be the best way of securing full access to the Kindle's text-to-speech and the read-out-loud function of

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Adobe ebooks, even if anti-discrimination legislation was the means used in the US to gain leverage on this issue. If the situation is that in order to turn on the Kindle's text-to-speech function the vendor needs volume and electronic rights, then any form of legislation which tries to use compulsion in this area might fail, simply because it would amount to forcing publishers to buy rights. An exception allowing Amazon or a public library to activate text-to-speech functions might be the best way forward in the short to medium term.

Import and export over borders: Although the Memorandum of Understanding enabling the movement of files over EU borders is a welcome development, it can be unilaterally withdrawn and should not deflect the WBU and its UK members from promoting the provisions of the treaty at WIPO level; in fact as it stands the memorandum would probably allow UK organisations to benefit visually impaired countries rather than the other way round, though UK students of foreign languages might benefit. In particular there is a need to facilitate the movement of books and files between the US and the UK. Trying to achieve this by license and persuading all publishers to consent to such a measure on a voluntary basis might take as long as achieving ratification of the treaty at WIPO. A Memorandum of Understanding could be drawn up between the two countries as a means of "papering over the cracks", but this would be vulnerable in the way that the EU Memorandum is; at this writing an exception granted to trusted intermediaries seems the most economic way forward.

Equality legislation: Academic publishers should be brought unambiguously under the ambit of the new Equality Act. This could be done by issuing new regulations attached to the Act via a Statutory Instrument. The regulations should require archiving processes to be set in place which would enable a file of a book to be easily recovered. The regulations should not mandate a switch to XML, but should specify a minimum standard of accessibility for a PDF of a book to be implemented from a specified date (publishers should not be required to go back through their entire catalogues retrofitting accessibility). Meeting requests from the lookup website should be part of the job description of a specified individual and should be passed on to someone else if that individual leaves the company.

These three reforms seem clear enough, but there are three others, two in the area of copyright and the other in the area of anti-discrimination law, that are worth further consideration and research.

Firstly David Mann's (2006) idea of a right of equitable access being an integral part of copyright law should not be abandoned altogether. It is doubtful whether it would have the effect of forcing the publishing industry to proactively engage with accessibility (see the paragraph on the Kindle's text-to-speech above), but it would have the effect of preventing the industry putting any barriers in the way of accessibility and then trying to legitimise them by appealing to economic self-interest. There is no way of knowing whether an opportunity will come to promote this idea again, but it is certainly one worthy of consideration, particularly if exceptions on DRM are not forthcoming.

Second the introduction of a for-profit exception would be useful. Whether it would allow Google to contribute to the accessibility landscape in the UK is dependent on the fate of the Google book settlement and also on how accessible the content Google has actually is (it might be scanned images of text). It may be the case that a for-profit exception would have its greatest effect in freeing up ebooks aggregators to offer DRM-free content to visually impaired users (see section 9.6 below).

The other area which needs further research is how best to bring multi-national companies like Adobe and Amazon into the area of anti-discrimination legislation. Most of the difficulties accessing ebooks arise partly from the fact that Adobe chose not to incorporate accessibility features into Adobe Digital Editions when it was first released and partly because ebooks reading devices did not have to have any accessibility features built into them at the start.

10.4 Ebooks

The ebook has certainly made a definite contribution to access in higher education although difficulties still surround its delivery. Large UK publishers seem able to supply a file for the majority of the titles that are academically current for students on most courses.

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Regarding trade publishing this research did find some "early adopters" amongst the visually impaired community who had some residual vision and who were using some of the less prominent ebook reading devices, but the Kindle, the iPhone and the iPad have become front runners from an accessibility point of view. Ultimately Apple may prove to be the best providers of accessibility because of the way in which it is built into their products from the start; this is a significant development, as at the start of this research project this did not seem at all likely. The totally blind and the deaf-blind who hope to access ebooks on more traditional mobile phones which used assistive technology face the biggest challenge accessing ebooks. Research funding bids have already been submitted to study the feasibility of visually impaired people accessing learning materials via mobile phones.

The ebook remains the greatest hope for accessibility on a large scale though difficulties and challenges remain. Not all UK publishers have ebooks programmes. The habit of delaying the release of the ebook illustrates perfectly the "one step forward, at least half a step back" quality of much activity on accessibility which has been typical during this research project. It is possible that if this practice continues, an advocacy group, perhaps in the US, will sue a publisher on the grounds that it is delaying equal access.

10.5 DAISY

As a format DAISY does not look likely to gain a foothold outside of those areas where equal opportunities considerations have an impact. On the other hand the DAISY Consortium's work is potentially of real significance. It will be interesting to see to what extent DAISY's stewardship of the Epub standard benefits accessibility. The Consortium should certainly pursue its idea of a global accessible bookstore, as this would offer UK publishers the best opportunity to profit from a global accessibility market. DAISY might ultimately be better placed than BLIO to deliver this aspect of accessibility, since it has the backing of large players in the I.T. industry and is less the brainchild of one pioneer, which has implications for the sustainability of its activities. Furthermore DAISY players now exist on more or less every portable device originating from the assistive technology sector, meaning

that it ultimately has the capacity to deliver accessibility to those who have already spent money on such devices and are consequently uninclined to spend even more on yet another device like the Kindle or the iPad.

10.6 Access to websites

While access to websites will no doubt continue to be a difficult issue (it is particularly worrying that website developers are trying to use work-arounds to obtain distorted accessibility guidelines compliance scores), the relatively small field of online bookshops seems to be a modest success story. The difficulties reported by participants in the accessibility test of Waterstone's and W.H. Smith websites should not be allowed to obscure those successes achieved by Amazon, ebooks.com and Audible, and the potential that is offered by the Shaw Trust's involvement in this area is considerable. It seems as if Waterstone's have at least tried to make some gesture towards accessibility, and while moves to improve access seem slow, relations between the interested parties may yet bring about the results needed.

The area of accessibility and online libraries in academia is a different matter. It seems that although some librarians in the US see themselves as advocates of access, finding UK university librarians who see themselves in this role has been harder. Furthermore issues do not have to do only with the way specific web pages breach accessibility guidelines but also with the DRM attached to the books they offer. Introducing an exception to allow the circumvention of DRM or the for-profit exception discussed in Chapter 6 would be a way forward, but if publishers are finding that pirated versions of ebooks originate from files hacked off aggregator's websites, a further slackening of security measures might be resisted. The problem is that it is not as if a solution can be reached with ebooks aggregators in isolation; publishers have to be involved. The idea of institutions being given special logon ids to allow them access to DRM-free content for their visually impaired students is worth further research.

The clause in the Equality Act on the provision of material in an alternative format acceptable to the user provides a useful platform to launch further work and

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research in this area. In fact the Act provides the opportunity for a fresh initiative on web accessibility in general. It is to be hoped that advocacy groups will not use this as an opportunity to enforce absolute conformance to some standards which of themselves cannot guarantee accessibility. If one stood back for a moment and imagined a scenario in which web accessibility was being constructed from scratch, one might adopt an approach which tried to capture processes rather than one which tried to enforce standards which always lag behind technological development; in other words one might allow website developers freedom to do whatever they liked provided that they offered a version of their site which, after user testing, was deemed to be both accessible to and usable by assistive technology users. One might enshrine user testing and swift remedial work based on user feedback rather than standards in law for public sector websites.

However website accessibility is not being constructed from scratch and the development of academic online libraries is not happening in a vacuum. The technique of offering a separate scaled-down version of a site might be the best way forward in the short to medium term, particularly as it could be the same as a scaled-down version of a site offered to sighted mobile phone users. The problem with this approach is that accessibility could be left to emerge by accident, and it is important to remember here the finding of this research that when given feedback on the accessibility of their websites, bookshops and ebooks aggregators have not been quick to make recommended adjustments. Therefore a standards based approach should not be abandoned altogether, and it is worth waiting to see whether the new accessibility standards incorporated into Section 508 of the Americans with Disabilities Rehabilitation Act are stronger than the WAI accessibility guidelines.

10.7 A systematic approach

The reason for reaching conclusions on the objectives listed in Chapter 3 was that doing so might help meet the two aims listed at the end of the introduction, specifically helping to map out a more systematic approach to access to books and websites. If the recommendations listed above were acted on, what would the system that emerged look like and in what way would it be superior to the way things are done now?

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Access to trade books: Selling books either through a dedicated ebooks reading device or through a global accessible bookstore hosted by DAISY would offer publishers a worldwide market and have the best potential to make the visually impaired consumer a source of profit for publishers. Charitable transcription work of the sort done by the RNIB could gradually be taken on by public libraries, leaving RNIB and other advocacy groups to take on more of a technology monitoring role and free to channel resources previously spent on transcription work into running down the cost of the more expensive technology, particularly Braille displays. Bringing the manufacturers of goods under the ambit of anti-discrimination legislation would not guarantee immediate accessibility to every ebooks reading device, but it would give advocacy groups the leverage they needed to ensure that accessibility concerns were addressed much more quickly than has hitherto been the case.

Access to higher education books: Here the complexity of the material in books (diagrams and graphs, etc) mean that learning support workers are going to be involved in safeguarding access for the time being. Nevertheless bringing academic publishers under the ambit of anti-discrimination legislation would force them to engage with the examples of how to render material accessible in the Publishers Association's guidelines and in the material provided by JISC TechDis. It would also give JISC TechDis the leverage they needed to promote accessibility issues more vigorously and it would also indirectly empower students. A central repository, whether funded by the government or a financially self-sustaining private enterprise like Bookscholar, would save the taxpayer money and reduce the time that support workers spent on actually processing text and the stress that some support workers clearly feel is inherent in the fulfilment of their responsibilities.

Access to websites: It is probably impossible to devise a system of guaranteeing access to all websites, but in the narrow field of publishing-related websites closer contact between the visually impaired users themselves and developers could be the key to obtaining and maintaining accessibility. It would certainly be a way of avoiding the problem of websites being developed which conformed to accessibility guidelines but which were unusable by visually impaired people themselves. The Shaw Trust and/or Abilitynet, both of whom employ visually impaired people on

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their website assessment team, would certainly be in a position to bring about closer contact, particularly with JISC TechDis's continued intervention. While the threat of a lawsuit will always be possible outside of academia, once a solution to the accessibility of Internet-based libraries in academia has been agreed on, librarians acting as safeguards of access should mean that best practice should be maintained.

Of course no system is fool proof. Safeguarding access in something as diverse as the book industry and to something as large as the Internet is always going to pose problems. There is also the real possibility that acting on some of the recommendations above could cause some unhappiness in some circles (for example the phased withdrawal of the RNIB from the production of accessible literature might well be politically sensitive in the visually impaired community). Nevertheless change is coming anyway (for example when ebooks become accessible some visually impaired people will have to get used to buying their books of choice), and a point may soon come when the question is not how to achieve access but how to improve it and then to maintain it. Nobody would claim that the system as it currently exists is the best way of doing that, and it is important to adapt processes and ways of working so that they are more in line with upcoming developments. The recommendations listed above seem to offer the best way of promoting increased access and preventing a situation of the sort that exists now from arising in the future.

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Bibliography

Accessibility Action Group, 2010. *Nin^{th} publisher accessibility newsletter.* < http://www.pls.org.uk/services/accessibility1/Pages/accessibilitynewsletter.aspx?PageView=Shared >, [accessed 01.08.2010].

Algenio, E. & Thompson-Young, A., 2003. Licensing E-Books: The Good, The Bad And The Ugly. *Journal of Library Administration,* 42(3/4), 113-128.

Allen, K., 2009. Sony to sell only ePub e-books. *The Bookseller* [online], 13 August. < http://www.thebookseller.com/news/94254-sony-to-sell-only-epub-e-books.html >, [accessed 23.08.2010].

Andriani, L., 2009. Authors Guild and Amazon disagree over Kindle's text-to-speech software. *Publishers Weekly* [online], 12 February. < http://www.publishersweekly.com/article/CA6637184.html?rssid=192 >, [accessed 08.01.2010].

Amazon, 2009. *Amazon Kindle 2 accessibility blog and announcement of plans to build accessibility into the Kindle's menus.* <http://www.amazon.com/gp/blog/post/PLNK3LOIUHETXJZXJ >, [accessed 07.04.2010].

Ball, D., 2006. Innovative models for procuring e-books. *Serials,* 19(1), 28-31.

Barnes, C., 2001. *Emancipatory disability research: project or process? <* http://www.leeds.ac.uk/disability-studies/glasgow%20lecture.pdf >, [accessed 01.08.2010].

Bennett, F. & Holdsworth, M., 2007. *Embracing The Digital Age: An Opportunity For Booksellers And The Book Trade.* < http://www.thebookseller.co.uk/in-depth/feature/49109-digital-duties.html >, [accessed 12.12.2007].

_____

Blofeld, P., 2009. Top secret Google memo revealed. *The Bookseller* blog [online], 26 November. < http://www.thebookseller.com/blogs//104443-top-secret-google-memo-revealed.html >, [accessed 17.01.2010].

Blount Jr, R., 2009. The Kindle swindle? *New York Times* [online], 24 February. < http://www.nytimes.com/2009/02/25/opinion/25blount.html?_r=1 >, [accessed 08.01.2010].

Booker Prize Foundation, n.d. *Rules and entry.* < http://www.themanbookerprize.com/prize/about/rules-and-entry >, [accessed 10.05.2011].

Brazier, H., 2005. *Charity, charges and chaos: the story of library services for visually impaired people in the UK.* < http://www.ifla.org/IV/ifla71/Programme.htm >, [accessed 23.08.2010].

Buchanan, R., 2010. *Accessibility and the iPad: first impressions.* < atmac.org/accessibility-and-the-ipad-first-impressions >, [accessed 01.08.2010].

Bury, E., Davies, H. & Barnicoat, L., 2007. Will 2008 be the year of the e-book? *The Bookseller* [online], 6 December. < http://www.thebookseller.com/in-depth/feature/49429-will-2008-be-the-year-of-the-e-book.html >, [accessed 09.12.2007].

Byerley, S.L. & Chambers, M.B., 2002. Accessibility and usability of Web-based library databases for non-visual users. *Library High Tech* [online], 20(2), 169-178. < http://www.ingentaconnect.com/search/article?title=Accessibility+of+web-based+library+databases&title_type=title&year_from=1998&year_to=2009&database=1&pageSize=20&index=3 >, [accessed 20.04.2008].

Byerley, S.L., Chambers, M.B., & Thohira, M., 2007. Accessibility of web-based library databases: the vendors' perspectives in 2007. *Library High Tech* [online], 25(4), 509-527. <

_____

http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/2380250406.html >, [accessed 11.02.2008].

Caldwell, T., 2008. The long march of the E-book. *Information World Review Oxford [online],* Iss. 245. < http://proquest.umi.com/pqdweb?index=16&did=1467169151&SrchMode=3&sid=1&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1209089292&clientId=5238 >, [accessed 28.04.2008].

Center for Advanced Research in Phenomenology and Philosophy, n.d. *What is phenomenology? <* http://www.phenomenologycenter.org/ >, [accessed 01.08.2010].

Chillingworth, M., 2007. Wiley: publishers must push e-books. *The Bookseller* [online], 12 October. < http://www.thebookseller.com/news/46462-wiley-publishers-must-push-e-books.html?p=6 >, [accessed 16.10.2007].

Connaway, L. & Wicht, H., 2007. What Happened to the E-book Revolution? : The Gradual Integration of E-books into Academic Libraries. *Journal of Electronic Publishing [online],* 25(3). < http://quod.lib.umich.edu/cgi/t/text/text-idx?c=jep;cc=jep;rgn=main;view=text;idno=3336451.0010.302 >, [accessed 15.01.2008].

Cope, W. & Phillips, A., eds, 2006. *The Future of the Book in the Digital Age.* Oxford: Chandos Publishing.

Craven, J., ed., 2008. *Web accessibility: Practical advice for the library and information professional.* Oxford: Facet Publishing.

Craven, J. & Brophy, P., 2003. *NoVA Project Final Report: Non-visual access to the digital library. <* http://www.cerlim.ac.uk/projects/nova/ >, [accessed 30.04.2008].

_____

Cresswell, J.W., 2003. *Research design – qualitative, quantitative and mixed method approaches,* 2ⁿᵈ ed. London: Sage.

Curry, L.A., Nembhard, I.M. & Bradley, E.H., 2009. Key issues in outcomes research: Qualitative and mixed methods provide unique contributions to outcomes research. *Circulation* [online], 2009(119), 1442-1452. < http://circ.ahajournals.org/cgi/content/full/119/10/1442 >, [accessed 21.07.2010].

D'Agostino, D., 2010. *The strange case of academic libraries and e-books nobody reads*. Teleread blog, 7 January. < http://www.teleread.com/2010/01/07/the-strange-case-of-academic-libraries-and-e-books-nobody-reads/ >, [accessed 01.08.2010].

DAISY Consortium, n.d. *Plans for a global accessible library.* < http://www.daisy.org/project/global-accessible-library >, [accessed 01.08.2010].

Daniels, M., 2006. *Brave New World.* < http://www.booksellers.org.uk/DOC/index.asp >, [accessed 04.11.2007].

Danielsen, C., 2009. *National Federation of the Blind and American Council of the Blind file discrimination suit against Arizona State University.* < http://www.readingrights.org/458 >, [accessed 31.08.2010].

Dearnley, J. A., McKnight, C. & Morris, A., 2004. Electronic books usage in public libraries: a study of user and staff reactions to a PDA-based collection. *Journal of Librarianship and Information Science* [online], 36(4), 175-182. < http://online.sagepub.com/cgi/searchresults?src=selected&andorexactfulltext=and&journal_set=splis&fulltext=visually+impaired >, [accessed 19.02.2010].

Disability Rights Commission, 2004. *The web: access and inclusion for disabled people.* < http://joeclark.org/dossiers/DRC-GB.html >, [accessed 01.08.2010].

_____

Disability Section of the Joint Information Systems Committee, n.d. *Guide to obtaining textbooks in alternative formats.* < http://www.techdis.ac.uk/index.php?p=9_12_2 >, [accessed 19.05.2009].

Disability Section of the Joint Information Systems Committee, 2009. *The JISC TechDis online accessibility self assessment service.* < http://www.techdis.ac.uk/index.php?p=1_45_1 >, [accessed 14.07.2010].

Doctorow, C., 2007. Downloads give Amazon jungle fever. *Technology Guardian* [online] 12 December. < http://www.guardian.co.uk/technology/2007/dec/11/amazon >, [accessed 12.12.2007].

Eberenz, C., 2009. *Argon DAISY editions – DAISY in the commercial book trade in Germany.* < http://www.daisy2009.de/en/programme/international-technical-conference.html >, [accessed 06.08.2010].

Fenton, R., 2009. blog: Are you listening? *The Bookseller* [online], 30 September. < http://www.thebookseller.com/blogs//98308-are-you-listening.html >, [accessed 07.01.2009].

Franks, J., ed., 2009. *Access IT,* 2009(7). Peterborough: Royal National Institutue of Blind People.

Franks, J., ed., 2009. Access IT, 2009(12). Peterborough: Royal National Institute of Blind People.

Franks, J., 2009. Dolphin makes ebooks accessible with Epub support, in Franks, J., ed., 2009. *Access IT,* 2009(12), 17-19.

Fraser, L. & Lawley, M., 2000. *Questionnaire design and administration: a practical guide.* Australia: John Wiley & Sons.

_____

Frye, D.B., 2009a. Fighting for the right to read, in Franks, J., ed., 2009. *Access IT,* 2009(7), 35-48.

Frye, D. B., 2009b. The democratization of knowledge: NFB works to promote the Google settlement. *Braille Monitor* [online], 52(11). < http://www.nfb.org/images/nfb/Publications/bm/bm09/bm0910/bm091002.htm >, [accessed 19.02.2010].

Frye, D., B. & Pierce, B., 2008. 2008 Convention roundup. *Braille Monitor* [online], 51(8). < http://www.nfb.org/images/nfb/Publications/bm/bm08/bm0808/bm080802.htm >, [accessed 17.08.2010].

Gallagher, V., 2010. Surge in applicants leads to academic growth. *The Bookseller* [online], 22 January. < http://www.thebookseller.com/news/110361-surge-in-university-applicants-leads-to-academic-growth.html >, [accessed 11.07.2010].

Garnett, N., 2006. *Automated Rights Management Systems and Copyright Limitations and Exceptions.* < http://www.wipo.int/meetings/en/archive_docs.jsp?organisation=WIPO&doc_code =sccr_14_5&doc_title=&doc_author=&doc_lang_code=e >, [accessed 26.07.2007].

Garrod, P. & Weller, J., 2005. *Ebooks in UK public libraries: where we are now and the way ahead.* < http://www.ukoln.ac.uk/public/nsptg/e-books/ >, [accessed 01.08.2010].

Gartner, J., Bulatov, V. & Kelly, R., 2009. Making journals accessible to the visually impaired: the future is here. *Learned Publishing,* 22(4), 314-319.

George, R., 2006. *Will the RNIB's 'Right to Read' campaign give visually impaired readers a better deal?* Masters thesis, Oxford Brookes University.

_____

Gillespie, T., 2007. *Wired shut: The Shape of digital culture.* Cambridge: The MIT Press.

Goggin, G. & Newell, C., 2003. *Digital disability: the social construction of disability in new media.* Oxford: Roman and Littlefield.

Goldstein, D., 2007. The justice of access. *Braille Monitor* [online], 50(9). < http://www.nfb.org/images/nfb/Publications/bm/bm07/bm0709/bm070903.htm >, [accessed 23.08.2010].

Gowers, A., 2006. *Review of intellectual property.* < http:// www.hm-treasury.gov.uk/media/6/E/pbr06_gowers_report_755.pdf >, [accessed 30.04.2008].

Grounded Theory Institute, n.d. *What is grounded theory?* < http://www.groundedtheory.com/what-is-gt.aspx >, [accessed 01.08.2010].

Herther, N.K., 2005. The e-book industry today: a bumpy road becomes an evolutionary path to market maturity. *The electronic library [online]*, 23(1), 45-53. <http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/2630230104.html >, [accessed 30.09.2007].

Harris, C. & Oppenheim, C., 2003. The provision of library services to visually impaired students in response to the Special Educational Needs and Disability Act (SENDA). *Journal of Librarianship and Information Science,* 35(4), 243-257.

Human Rights and Equal Opportunities Commission, 2000. *H 99/115 Bruce Lindsay Maguire v Sydney Organising Committee For The Olympic Games (2000).* <http://www.hreoc.gov.au/disability_rights/decisions/comdec/Maguire%20v%20SOCOG3.htm >, [accessed 30.04.2008].

Jacsó, P., 2008. Google Scholar revisited. *Online Information Review* [online], 32(1), 102-114. <

_____

http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/2640320108.html >, [accessed 22.05.2008].

Jeges, E. & Kerenyi, K., 2006. *Report on the 5th Indicare Workshop.* <http://www.indicare.org/tiki-read_article.php?articleId=193>, [accessed 07.01.2008].

Joint, N., 2006. Libraries, digitisation and disability. *Library Review* [online], 55(3), 168-172. <http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/0350550301.html >, [accessed 21.09.2007].

Joint Information Services Committee, 2009. *Ebooks observatory project summary report.* < www.jiscebooksproject.org/reports >, [accessed 06.08.2010].

Jones, P. & Neill, G., 2007. Dutch demand to spark e-book market. *The Bookseller* [online], 12 December. < http://www.thebookseller.com/news/49542-dutch-demand-to-spark-e-book-market.html

Jones, P., 2009. Amazon backs down on Kindle speech. *The Bookseller* [online], 3 March. < http://www.thebookseller.com/news/78729-amazon-backs-down-on-kindle-speech.html >, [accessed 08.01.2009].

Just, P., 2007. Electronic books in the USA – their numbers and development and a comparison to Germany. *Library High Tech* [online], 25(1), 157-164. < http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/2380250113.html >, [accessed 02.02.2008].

Kelly, B., 2004. *Accessibility survey of UK university entry points, June 2004.* < http://www.ukoln.ac.uk/web-focus/events/workshops/webmaster-2004/talks/phipps-kelly/survey/ >, [accessed 10.07.2010].

_____

Kelly, B. *et al*., 2005. Forcing Standardization or Accommodating Diversity? A Framework for Applying the WCAG in the Real World. *Proceedings of the 2005 International Cross-Disciplinary Workshop on Web Accessibility (W4A).* < http://www.ukoln.ac.uk/web-focus/papers/ >, [accessed 29.04.2008].

Kelly, B. *et al*., 2007, Accessibility 2.0: People, Policies and Processes. *WWW 2007 Banff, Canada, 7-11 May 2007*. < http://www.ukoln.ac.uk/web-focus/papers/ >, [accessed 29.04.2008].

Kerscher, G., 2001. DAISY Consortium: information technology for the world's blind and print-disabled population – past, present and into the future. *Library High Tech* [online], 19(1), 11-15. < http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/2380190102.html >, [accessed 30.04.2008].

Kerscher, G. & Fruchterman, J., 2002. The soundproof book. *First Monday* [online], 7(6). < http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/959/880 >, [accessed 07.01.2010].

Kheir, O., 2006. *The accessibility and usability of websites: Relationships between measures from users, experts and guidelines.* Masters thesis, Centre for Disability Studies at York University. < http://www.sigaccess.org/community/theses_repository/masters/omar_kheir.php >, [accessed 23.08.2010].

Kramer, E.F., 2007. Digital rights management: Pitfalls and possibilities for people with disabilities. *Journal of Electronic Publishing* [online], 2007(1). < http://quod.lib.umich.edu/cgi/t/text/text-idx?c=jep;cc=jep;q1=3336451.0010.1%2A;rgn=main;view=text;idno=3336451.0010.106 >, [accessed 17.01.2008].

_____

Kravets, D., 2009. Obama sides with blind in copyright-treaty debate. *Wired Magazine* [online], 15 December. < http://www.wired.com/threatlevel/2009/12/obama-blind-treaty/ >, [accessed 31.08.2010].

Landoni, M. & Hanlon, G., 2007. E-books reading groups: interacting with e-books in public libraries. *The Electronic Library,* 25(5), 599-612.
Lessig, L., 2004. *Free culture*. The Penguin Press: New York.

Lockyer, S., Creaser, C. & Davies, J.E., 2004. *Availability of accessible publications*. <http://www.blackwell-synergy.com/doi/pdf/10.1111/j.1471-1842.2005.00616.x >, [accessed 30.04.2008].

Malik, O., 2009. *Jeff Bezos on Kindle and e-books.* < http://gigaom.com/2009/12/06/bezos-on-kindle/ >, [accessed 01.08.2010].

Mann, D., 2006a. *Where's my book? Tackling the textbook defecit faced by pupils with sight loss.* <http://www.rnib.org.uk/xpedio/groups/public/documents/PublicWebsite/public_r2r wheresmybook.hcsp#P7_208 >, [accessed 11.10.2008].

Mann, D., 2006b. *Review of UK intellectual property law: Response from the Royal National Institute of the Blind.* < http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/public_copy rightcamp.hcsp >, [accessed 16.10.2007].

Mann, D., Marriott, J. & Vale, D., 2003. *Overdue.* < http://www.rnib.org.uk/getinvolved/campaign/accesstoinformation/righttoread/right readreport/Pages/right_read_report.aspx >, [accessed 01.08.2010].

Mann, D., 2007. *Exceptions or limitations to copyright for blind, partially sighted people and other print disabled people: Advice note.*

_____

<http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/public_cop yrightcamp.hcsp#P31_2215>, [accessed 14.09.2007].

Marriott, J., 2006. *Chapter and verse.* <http://www.rnib.org.uk/xpedio/groups/public/documents/PublicWebsite/public_r2r home.hcsp#P6_72>, [accessed 11.10.2007].

Martinengo, R., 14/04/2008. *The Daisy Dilemma.* < http://accessiblemedia.wordpress.com/>, [accessed 30.04.2008].

McCarthy, J., 2007. *Leveling The Playing Field: Providing Blind Students With Accessible Textbooks In Higher Education.* <http://www.nfb.org/nfb/2007_higher_education_fact_sheet.asp?SnID=2>, [accessed 11.10.2007].

McClure, M., 2007. A Case of Increasing the Functionality and Profile of Ebooks. *EContent* [online], 30(6), 61-63. <http://proquest.umi.com/pqdweb?index=2&did=1324484171&SrchMode=3&sid= 1&Fmt=4&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1210856 083&clientId=5238&aid=1>, [accessed 30.11.2007].

McCoy, W., 2009. *Adobe eBooks: Update on accessibility support, and outline of the decision of Los Angeles Public Library to suspend the purchase of Adobe eBooks.* <http://blogs.adobe.com/billmccoy/2009/10/adobe-ebooks--.html>, [accessed 07.04.2010].

McKnight, C., Dearnley, J.A. & Morris, A., 2008. Making e-books available through public libraries: some user reactions. *Journal of Librarianship and Information Science* [online], 40(1), 31-43. <http://lis.sagepub.com/content/40/1/31.full.pdf+html>, [accessed 01.08.2010].

_____

Moughton, C., 2008. *How librarians are supporting accessible learning.* < http://www.jisc.ac.uk/news/stories/2008/07/claudaccessiblelearning.aspx >, [accessed 20.07.2009].

Muir, L.J., Veale, T. & Nichol, A., 2009. Like an Open Book? Accessibility of E-Book Content for Academic Study in a Diverse Student Population. *Library and Information Research,* 33 (105), pp. 90-109.

National Instructional Materials Accessibility Centre, 2007. *Conference call notes.* < http://www.nimac.us >, [accessed 30.04.2008].

Neilan, C., 2009a. CUP launches online books platform. *The Bookseller* [online], 7 December. < http://www.thebookseller.com/news/105943-cup-launches-online-books-platform.html >, [accessed 11.07.2010].

Neilan, C., 2009b. FEP want 'serious discussion's with Google after French fine. *The Bookseller* [online], 23 December. <http://www.thebookseller.com/news/107867-fep-want-serious-discussions-with-google-after-french-fine.html >, [accessed 27.07.2010].

Neilan, C., 2009c. Mandelson wants to curb piracy, and update copyright law. *The Bookseller* [online], 29 October. < http://www.thebookseller.com/news/101369-mandelson-wants-to-curb-piracy-and-update-copyright-law.html >, [accessed 17.01.2010].

Neilan, C., 2010a. IPG: publishers face 'Copernican shift' from digital. *The Bookseller* [online], 22 March. < http://www.thebookseller.com/news/114842-ipg-publishers-face-copernican-shift-from-digital.html >, [accessed 11.07.2010].

Neilan, C., 2010b. Apple 'shifts' 300,000 iPads on day one. *The Bookseller* [online], 6 April. < http://www.thebookseller.com/news/115571-apple-shifts-300000-ipads-on-day-one.html >, [accessed 07.04.2010].

_____

Neilan, C., 2010c. iBooks the winner as iPad gains positive feedback. *The Bookseller* [online], 6 April. < http://www.thebookseller.com/news/115573-ibooks-the-winner-as-ipad-gains-positive-feedback.html >, [accessed 07.04.2010].

Neilan, C., 2010d. Copyright, Digital Economy Act top laws public want repealed. *The Bookseller* [online], 1 July. < http://www.thebookseller.com/news/122428-copyright-digital-economy-acts-top-laws-public-want-repealed.html >, [accessed 11.07.2010].

Neilan, C., & Page, B., 2010. Publishers and Apple drag Amazon into agency age. *The Bookseller* [online], 6 April. < http://www.thebookseller.com/news/115581-publishers-and-apple-drag-amazon-into-agency-age.html >, [accessed 11.07.2010].

Neill, G., 2008. Trade snubs digital task force. *The Bookseller* [online], 20 March. < http://www.thebookseller.com/news/55342-trade-snubs-digital-taskforce.html >, [accessed 21.03.2008].

Neill, G., 2009. Government launches PLR digital review. *The Bookseller* [online], 20 August. < http://www.thebookseller.com/news/94956-government-launches-plr-digital-review-.html >, [accessed 07.01.2010].

New, W., 2008. WIPO committee advances agenda on copyright exceptions, broadcasting. *Intellectual Property Watch* [online], 9 November. < http://www.ip-watch.org/weblog/2008/11/09/wipo-committee-advances-agenda-on-exceptions-to-copyright-broadcasting/ >, [accessed 06.08.2010].

New, W., 2009a. Group of countries to back proposal for WIPO treaty on blind readers' rights. *Intellectual Property Watch* [online], 25 May. < http://www.ip-watch.org/weblog/2009/05/25/group-of-countries-to-back-proposal-for-wipo-treaty-on-blind-readers%E2%80%99-rights/ >, [accessed 06.08.2010].

New, W., 2009b. WIPO draft on visually impaired shows breakthrough; A-V treaty negotiation under discussion. *Intellectual Property Watch* [online], 9 December. <

_____

http://www.ip-watch.org/weblog/2009/12/17/wipo-draft-on-visually-impaired-shows-breakthrough-a-v-treaty-negotiation-under-discussion/ >, [accessed 06.08.2010].

Oliver, M., 1983. *Social Work with Disabled People.* Tavistock: Macmillan.

Oliver, M., 1990. *The Politics of Disablement.* Tavistock: Macmillan.

Olivero, A., 2009. Tactile access to the iPhone is here. *Braille Monitor* [online], 52(10). < http://www.nfb.org/images/nfb/Publications/bm/bm09/bm0910/bm091005.htm >, [accessed 21.04.2010].

Owen, D., 2007. Sharing a vision to improve library services for visually impaired people in the United Kingdom. *Library Trends [online],* 55(4), 809-829. < http://muse.jhu.edu/journals/library_trends/v055/55.4owen.html >, [accessed 12.02.2010].

Page, B., 2008. 'Big bang' launch for e-books. *The Bookseller*]online], 14 March. < http://www.thebookseller.com/news/54968-big-bang-launch-for-e-books.html >, [accessed 01.04.2008].

Penny, D., 2008. Publishing technologies: what does the future hold? *Learned Publishing,* 21(1), 39-47.

Perlman, M., 2006. If it isn't on the Internet, it doesn't exist. In Cope, W. & Phillips, A., eds., 2006. *The Future of the book in the digital age,* pp. 18-23.

Price, G., 2007. *ALIS Wales*. *SCONUL Focus* [online], 42(1), 26-27. < http://www.sconul.ac.uk/publications/newsletter/42/8.pdf >, [accessed 23.08.2010].

_____

Publishers Association, n.d. *Accessibility matters.*
<http://www.publishers.org.uk/index.php?option=com_content&view=category&layout=blog&id=472&Itemid=1516 >, [accessed 01.08.2010].

Publishers Association, 2007. *Guidelines for publishers on accessibility.*
<http://www.publishers.org.uk/index.php?option=com_content&view=category&layout=blog&id=472&Itemid=1516 >, [accessed 01.08.2010].

Reading Rights Coalition, 2009. *Open letter to authors Guild.*
<http://www.readingrights.org/kindle-tts-issue >, [accessed 08.01.2010].

Reding, V., 2009. *The digital single market: a key to unlock the potential of the knowledge based economy.*
<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/09/429 >,
[accessed 01.08.2010].

Reid, C., 2009. Frankfurt Book Fair: Ray Kurzweil teams with Baker & Taylor on new Ereader software. *Publishers Weekly* [online], 15 October.
<http://www.publishersweekly.com/article/CA6702317.html >, [accessed 17.01.2009].

Richards, J., 2008. Yahoo!, Amazon and Facebook on the future of the Web. *The times* [online], 30 May.
<http://technology.timesonline.co.uk/tol/news/tech_and_web/article4027106.ece >,
[accessed 20.06.2008].

Robson, C., 2002. *Real world research, a resource for social scientists and practitioner-researchers,* 2nd ed. Oxford: Blackwell.

Roos, J., W., 2007. Libraries for the Blind as accessible Content Publishers: Copyright and Related Issues. *Library Trends* 55(4), 879-916.

_____

Rowlands, I. et al., 2007. What do faculty and students really think of e-books? *Aslib Proceedings* [online], 59(6), 489-511. < http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/2760590601.html >, [accessed 7.01.2008].

Royal National Institute of Blind People, n.d. *Vision criteria for being registered blind.* <http://www.rnib.org.uk/livingwithsightloss/registeringsightloss/Pages/vision_criteria.aspx >, [accessed 01.08.2010].

Royal National Institute of Blind People, 2006. *See it Right book.* Peterborough.

Royal National Institute of Blind People library services, n.d. *Support talking books.* <http://www.rnib.org.uk/livingwithsightloss/readingwriting/Talkingbooksanddaisyplayers/Pages/talking_books_daisy.aspx >, [accessed 07/01/2010].

Russell, J., 2007. *The RNIB and the Publishing Industry working in partnership.* <http://www.rpm-associates.co.uk >, [accessed 24.08.2007].

Savakis, A., 2010. *2009 O'Reilly ebook revenue up 104%.* Tools of change for publishing coference blog, 22 January. < http://toc.oreilly.com/2010/01/2009-oreilly-ebook-revenue-up-104-percent.html >, [accessed 01.08.2010].

Shreeve, J.L., 2007. Ebooks: The end of the page-turner? *The Independent* [online], 24 October. < http://news.independent.co.uk/sci_tech/article3091535.ece >, [accessed 09.12.2007].

Sloan, D., 2008. The importance of web accessibility. In: Craven, J. ed. 2008. *Web accessibility: Practical advice for the library and information professional*, pp. 41-56.

Smith, L., 2008. OUP stacks its e-books on OCLC's shelves. *Information World Review Oxford [online]*, Jan 2008, 242(1), p. 4.

_____

<http://proquest.umi.com/pqdweb?index=10&did=1411114251&SrchMode=3&sid=1&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1210858905&clientId=5238&aid=1 >, [accessed 10.02.2008].

Standing Committee on Copyright and Related Rights of the World Intellectual Property Organisation, 2008. *Official committee conclusions.* < www.wipo.int/meetings/en/details.jsp?meeting_id=16828 >, [accessed 06.08.2010].

Stone, B., 2008. Publishers Phase out Piracy Protection on Audio Books. *New York Times* [online], 10 March. <http://www.nytimes.com/2008/03/03/business/media/03audiobook.html?_r=1&oref=slogin >, [accessed 30.04.2008].

Sullivan, J., 2007. *Study On Copyright Limitations And Exceptions For The Visually Impaired.* < http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=75696 >, [accessed 26.07.2007].

Tashakkori, A., & Teddlie, C. eds., 1998. *Mixed Methodology: Combining qualitative and quantitative approaches.* Thousand Oaks, California: Sage.
Taylor, S., 2007. Google Scholar – friend or foe. *Interlending & Document Supply* [online], 35(1), 4-6. <http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/1220350101.html >, [accessed 22.05.2008].

Thomson, J.B., 2005. *Books in the digital age: The transformation of academic and higher education publishing in Britain and the United States.* Cambridge: Polity Press.

Tivnan, T., 2009a. Appilly ever after. *The Bookseller* [online], 18 September. <http://www.thebookseller.com/in-depth/feature/97294-appilly-ever-after.html >, [accessed 12.07.2010].

_____

Tivnan, T., 2009b. Business focus: loud and clear. *The Bookseller* [online], 13 August. < http://www.thebookseller.com/in-depth/feature/94293-business-focus-loud-and-clear.html >, [accessed 07.01.2010].

Tivnan, T., 2009c. Survey says … *The Bookseller* [online], 22 October. <http://www.thebookseller.com/in-depth/feature/100814-survey-says---.html >, [accessed 07.01.2010].

Tripplett, J. & Greig, F., 2008. *Reviewing and selecting ebooks platforms in Plymouth University*. Ebooks in higher and further education, Taunton, 5 November.

United Kingdom, 1988. *Copyright, Designs and Patents Act 1988.* <http://www.opsi.gov.uk/acts/acts1988/ukpga_19880048_en_1.htm >, [accessed 01.08.2010].

United Kingdom, 2001. *Special Educational Needs and Disabilities Act. <* http://www.opsi.gov.uk/ACTS/acts2001/ukpga_20010010_en_1 >, [accessed 30.04.2008].

United Kingdom, 2002. *Copyright (Visually Impaired Persons) Act. <* http://www.opsi.gov.uk/ACTS/acts2002/ukpga_20020033_en_1 >, [accessed 30.04.2008].

United Nations, 2006. *Convention on the Rights of Persons with Disabilities.* <http://www.un.org/esa/socdev/enable/rights/convtexte.htm >, [accessed 30.04.2008].

United States, 2004. *Individuals with Disabilities Education Improvement Act and the National Instructional Materials Accessibility Standard.* <http://nimas.cast.org/about/index.html >, [accessed 30.04.2008].

_____

Wallop, H. & Bell, V., 2009. E-books helping surge in library members. *The Daily Telegraph* [online], 26 October. <http://www.telegraph.co.uk/technology/news/6417660/E-books-helping-surge-in-library-members.html >, [accessed 01.08.2010].

Wise, A., 2008. *Third publisher accessibility newsletter.* <http://www.pls.org.uk/ngen_public/default.asp?id=3 >, [accessed 30.04.2008].

Wise., A., 2009. *Sixth publisher Accessibility newsletter.* < http://www.publisherscontentforum.org.uk/index.php?option=com_content&view= category&layout=blog&id=21&Itemid=17 >, [accessed 01.08.2010].

World Blind Union, n.d. *Number of visually impaired people the organisation claims to represent.* < http://www.worldblindunion.org/en >, [accessed 10.07.2009].

World Blind Union, 2004. *Policy Statement on copyright.* <http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/public_copyrightcamp.hcsp#P31_2215 >, [accessed 14.09.2007].

World Blind Union, 2008. *Blind people read books too! Announcing the launch of the WBU's Right to Read global campaign.* < http://www.worldblindunion.org/en/right-to-read-launch.html >, [accessed 29.05.2008].

Worldwide Web Consortium Web Content Accessibility Group, 1999. *Web Content Accessibility Guidelines 1.0.* < http://www.w3.org/TR/WCAG10/ >, [accessed 30.04.2008].

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Appendices

Appendix 1

Questionnaire circulated to librarians and support staff assisting visually impaired students

Thank you for taking the time to fill out this questionnaire. It has 22 questions and should take about ten minutes to complete.

I am a blind Ph.D research student at Loughborough University researching into whether simultaneous access to books is possible for visually impaired people. This questionnaire deals with the topic of obtaining accessible copies of books and transcribing material from books for visually impaired students in HEI.

Disability law requires educational institutions to make appropriate provision for educational materials. However, copyright legislation protects publishers from inappropriate copying from textbooks. Staff in libraries, learning support units or both, have to balance these two sets of rights and to provide material in an accessible format in a timely manner.

This questionnaire seeks to identify and investigate the procedures Universities have in place to meet their obligations under the law. It also seeks to investigate the cost of provision in terms of staff-time and finance.

Currently there is no legal obligation on publishers to provide accessible textbooks. The final section of the questionnaire invites respondents to reflect on their experiences of dealing with publishers and to express their opinions on whether or not the law should be changed to require publishers to produce accessible textbooks.

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Once again, thank you for taking the time to fill out this questionnaire. Results will be disseminated, but respondents' anonymity is guaranteed.

Please contact me if you require any further information: b.g.whitehouse@lboro.ac.uk

Guy Whitehouse

October 2008

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Questionnaire

* means the question must be answered.

1) Personal details:

Table with 2 columns and 4 rows

*Name

*Job description:

*Institution:

*Email address:

Table end

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*2) Describe any training you have received in transcribing material from books.

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*3) How many people are responsible for transcribing material from books or obtaining accessible copies of books as part of their job description?

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*4) How many of these people are on a part-time contract?

----

5) If there was a significant increase of visually impaired students joining your
institution in 2009-10, would you have sufficient staff to cope with this?

----

*6)
How often are you provided with a visually impaired student's reading list before
teaching starts?

 Never

 Occasionally

 Sometimes

 Often

 Always

----

*7) Please describe your institution's best practice guidelines for dealing with requests
for obtaining an accessible copy of a book or for material from books
to be transcribed.

----

8) Have any visually impaired students had an input into best practice guidelines which exist or are being developed? If so, please elaborate.

----

*9) Were any of your best practice guidelines adopted because of recommendations from the disability section of JISC (JISC TechDis)?

Please Select

----

*10) How is the cost of obtaining a book in an alternative format met?

----

11) Please give any figures you may have which indicate the costs incurred of transcribing material from books.

----

12) Approximately how many visually impaired students have used your services in the last five years?

----

13) Which formats do visually impaired students request the most often?

 Electronic

 Audio

 Braille

 Large print

Other (Please Specify):

----

14) Of the choices listed in Question 13, which is the most common?

----

15) Do you ever receive material from publishers in a format other than PDF? If so, please give details.

----

16) Have you ever received a PDF from a publisher which:-

(Please tick all that apply)

 Was fully accessible

 Was mostly accessible but in need of some minor reformatting

 Was a scanned image of text

 Would not open with a screen reader

 Appeared as a mass of jumbled text when opened with a screen reader

----

17) Of the choices presented in Question 16 above, which was the most common in your experience?

----

*18) Are you aware of the Publishers Lookup UK website at: www.publisherlookup.org.uk?

Please Select

----

19) Please name any publishers who have been particularly helpful in providing accessible copies of books.

----

20) In your experience, are there any academic subjects for which it is particularly difficult to obtain an accessible copy of a book?

----

21) Please briefly describe any experiences, whether good or bad, where you have tried to obtain an accessible copy of a book from a publisher.

----

*22) Please give your opinions on whether or not the law should be changed to make publishers responsible for producing accessible books.

Finish Survey

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Appendix 2

A list of universities who responded to the questionnaire is given below. They are listed by mission group and then in alphabetical order, not in respondent order.

From the 1994 group: Durham, East Anglia, Loughborough, Queen Mary, Reading, St. Andrews, Sussex, York.

From the Russell Group: Birmingham, Bristol, Cambridge, Cardiff, Edinburgh, Glasgow, Imperial College London, King's College London, Leeds, Manchester, Newcastle, Nottingham, Oxford, Queen's University Belfast, Sheffield, Warwick.

From the University Alliance: Aberystwyth, Bradford, De Montfort, Glamorgan, Gloucestershire, Kent, Manchester Metropolitan, Nottingham Trent, Oxford Brookes, Portsmouth, Sheffield Hallam, University of the West of England.

Information on membership of the various mission groups was taken on 10/06/2009 from http://www.universitiesuk.ac.uk/UKHESector/FAQs/Pages/About-HE-Sector-and-Universities.aspx.

The other universities who responded are, again in alphabetical, not respondent order: Aston, Birmingham City University, Bolton, Brighton, Brunel, Chester, Edgehill, Hull, Leeds Metropolitan, Napier, Northampton, Roehampton, Robert Gordon University of Aberdeen, Sunderland, Strathclyde, Swansea, University of East London, University of Westminster, Worcester.

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Appendix 3

Responses of those who took part in the accessibility survey of W.h. Smith and Waterstone's

Participant 1 sentin brief email comments which are already recorded in chapter 8.

Participant 2

How long have you used your screen reader or magnification software?

Since 1994

How experienced would you consider yourself in terms of using the internet?

Very –

I would suggest you provide a range here so you can more easily code the results.

Three tasks on the Waterstones website, www.waterstones.co.uk

Log on to the site and click on the link 'ebooks'. Spend a little time looking through that feature page. What do you like about it, and what do you dislike?

I like the form fields

Don't really dislike anything but I don't know what is there that I can't use.

  Now click on the link 'Advanced search'. Try using the advanced search features to find out how many of Kate Mosse's books are available as ebooks. How many are there and how long did you take doing this?

Annoying that I could not just click enter from the form field and had to go down to "go"

About 10 minutes as I had to use the jaws cursor as just hitting enter on the go button was not working for some reason.

It ended not up searching at all. I gave up with no response and have just noted not to use this site.

_____

Finally click on the 'Sign in link'. Try creating an account, going up to the point just before you hit the submit button. How long did it take, and how did you find the process?

I noted they had Isis frames. I had problems with these years ago when I worked for gov.

I took about 10 minutes or so.

With 1 being very poor and 5 being excellent, how would you rate using the site from a customer satisfaction point of view?

Very poor

Three tasks on the W. H. Smiths ebooks site.

First log on to ebooks.whsmith.co.uk, (note there is no www.). Click on the 'Reference' section, and spend some time browsing through the titles that come up. How do you find navigating the results page?

There is no "references" section but a "   " section

Okay I guess.

Use the 'quick search' box to find out if 'the spy who came in from the cold' is available on the site. How long did it take, and how did you find doing this?

Fine. A few minutes at most.

Finally, click on the 'Sign in' link and go through the process of creating an account up to the point before you hit the submit button. How long did it take and how did you find the process?

Okay. 5 min or so.

With 1 being very poor and 5 being excellent, how would you rate using the site from a customer satisfaction point of view?

good

If you want to add anything else about how you found using the site, write it here.

Generally I find it very hard when they ask to punch in the numbers with the security settings. Google has a audio version of te numbers but if you listen to it the background noise makes it so hard I can hardly hear the numbers.

Facebook etc have this as well to add a security element ot the site. It is a pain with screen readers.

Participant 3

Participant 4

How long have you used your screen reader or magnification software?

Answer: Approximately eleven (11) years.

How experienced would you consider yourself in terms of using the internet?

A: Intermediate but uncomfortable doing so.

Three tasks on the Waterstones website, www.waterstones.co.uk.

Log on to the site and click on the link 'ebooks'. Spend a little time looking through that feature page. What do you like about it, and what do you dislike?

A: I like the fact that your curser is immediately on the edit field for searches.

The option to turn off auto complete is good, but I'd like it before, not after the "Go" button else one may not see it if you directly enter on go, just above that.

It's good that the auto complete option is turned on per default, and very necessary to be able to turn it off, so the option is useful.

Now click on the link 'Advanced search'. Try using the advanced search features to find out how many of Kate Mosse's books are available as ebooks. How many are there and how long did you take doing this?

A: Four are available as ebooks, twenty-five in total.

It took about six minutes, as I initially entered the author's name in front of the surname, as that was how the question was posed, thus found nothing first and re-entered the surname with name, upon which it was found in two minutes.

Finally click on the 'Sign in link'. Try creating an account, going up to the point just before you hit the submit button. How long did it take, and how did you find the process?

A: For screen reader users who don't use the jaws links list and/or find command, it would be better to have the sign in link nearer to the top.

'My Waterstone's account' allows you to manage your account prefences'

Should perhaps be "account preferences?"

Using jaws 9, after confirming the password in the registration field, it doesn't tab to the "next" button and you have to go round circle again, I had to get out of forms mode to locate the button.

And only when clicking on "next," you're told the prerequisites of length etc of your password, wasting time, as mine was only five characters.

This should have been mentioned before, or when on the first password button.

With 1 being very poor and 5 being excellent, how would you rate using the site from a customer satisfaction point of view?

3

Three tasks on the W. H. Smiths ebooks site.

_____

First log on to ebooks.whsmith.co.uk, (note there is no www.). Click on the 'Reference' section, and spend some time browsing through the titles that come

up. How do you find navigating the results page?

A: Fairly good.

Use the 'quick search' box to find out if 'the spy who came in from the cold' is available on the site. How long did it take, and how did you find doing

this?

A: It took two minutes, found 56 results.

Finally, click on the 'Sign in' link and go through the process of creating an account up to the point before you hit the submit button. How long did it

take and how did you find the process?

A: I first tried the page you directed me to for the previous question.

Then I decided it's probably not the correct one and I went to the home page sign in link.

When I signed in, it asked for an email address and then a choice between html and text, but on the submit button, which I didn't press, it said: "unavailable."

I don't know what to make of this, so will give this a two rating.

With 1 being very poor and 5 being excellent, how would you rate using the site from a customer satisfaction point of view?

Perhaps 2.5 at best.

If you want to add anything else about how you found using the site, write it here.

I found this   much better than most sites I go to, and I say well done!

Participant 5

How long have you used your screen reader or magnification software?

I have been using JAWS since 2000.

How experienced would you consider yourself in terms of using the internet?

Average. Some websites are 'friendlier' than others. However, I never buy anything on the internet.

Three tasks on the Waterstones website, www.waterstones.co.uk.

Log on to the site and click on the link 'ebooks'. Spend a little time looking through that feature page. What do you like about it, and what do you dislike?

The 'e-book' page is generally well designed with links to various books that may be of interest to some readers. I did not find anything specific that I disliked.

Now click on the link 'Advanced search'. Try using the advanced search features to find out how many of Kate Mosse's books are available as ebooks. How many are there and how long did you take doing this?

I had problems with this task. After some time, I discovered 10 books by Kate Moss (not all by the same author). 7 of these were in 'hardback', 2 in 'paperback' and 1 was classified as 'other'. However, when I followed the link, it also appeared to be in 'hardback'. I did not find any books by Kate Moss in e-book format. In general, I did not find the system very friendly. When I pressed the 'go' button, I found myself back in the 'search' area. Eventually, after a few attempts, I 'landed' on the 'results' page. I spent about an hour searching for any e-books by Kate Moss.

Finally click on the 'Sign in link'. Try creating an account, going up to the point just before you hit the submit button. How long did it take, and how did you find the process?

I found the process relatively easy, but it took me about 15 minutes to complete the registration form. The site claimed that it would take about 1 minute.

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With 1 being very poor and 5 being excellent, how would you rate using the site from a customer satisfaction point of view?

As a totally blind user, I would rate the site quite low awarding only 2 points. I found it frustrating at times. Perhaps, I am not as experienced as I considered myself to be.

Three tasks on the W. H. Smiths ebooks site.

First log on to ebooks.whsmith.co.uk, (note there is no www.). Click on the 'Reference' section, and spend some time browsing through the titles that come up. How do you find navigating the results page?

I find navigating the results page quite good.

Use the 'quick search' box to find out if 'the spy who came in from the cold' is available on the site. How long did it take, and how did you find doing this?

The quick search came up with no results and requested that I should use the 'advance search'. After doing this, the search engine came back quickly with the book I was looking for. Navigating through the book information was very good. I was also given details of other books by the same author.

Finally, click on the 'Sign in' link and go through the process of creating an account up to the point before you hit the submit button. How long did it take and how did you find the process?

I was unable to create a new account. I could find nowhere any information on how to create an account. I was going around in circles with no results. Therefore, I award the process with just 1 point.

With 1 being very poor and 5 being excellent, how would you rate using the site from a customer satisfaction point of view?

The site in general, was good to use, providing I was able to create a new account. For this reason, I award the site with 3 points.

If you want to add anything else about how you found using the site, write it here.

Participant 6

How long have you used your screen reader or magnification software?

Answer: 15-20 years.

How experienced would you consider yourself in terms of using the internet?

Answer: Very experienced, although I'm not patient and don't use it as often as I might.

Three tasks on the Waterstones website, www.waterstones.co.uk.

Log on to the site and click on the link 'ebooks'. Spend a little time looking through that feature page. What do you like about it, and what do you dislike?

What I Like About the Site

Heading Structure is good in that book titles at Level 3 are contained within easily found categories at Level 2.

Find out More link does at least refer to the page being accessed in the link title.

Nice to see search option for screenreader users as well as for mouse users, i.e. type E-books in the search.

What I didn't Like

On E-books page there is no page title at the top to indicate that a
new page has been accessed.

I don't like link title "Just ask" - just ask what? I prefer number of
links to be cut down to what is essential in order to save time. Navigating with a
screenreader can be slow, particularly on large pages.

Link to Morganville series appears to me to be out of context, i.e. not

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as part of any meaningful list and not relevant to what comes before or
after.

The item below re special offer gift cards doesn't have an associated
tag - link or heading and could be missed by a screenreader user who
doesn't read the whole page but who navigates by headings, links, etc.

It would be more precise to link to the Sony Reader Page rather than to
"Find out more ....". In cases where there are many links to Find out
More or Get more info, etc., navigation using the links list is slower
because the link title does not give a precise location. At least the
relevant page title does appear in here, which is good.

Paragraph beginning "If you're looking for a title..." - is important
search information and a headed section re searching would be helpful. Again, this
could be missed if not reading the page from top to bottom.
Such a possible headed section might also contain the search box.

Regarding the search, clearly references to lists on the left, etc, aren't helpful to
screenreader users, but wouldn't a
categories combo-box be tidier instead of having to type E-Book for each search?

"The Promised Land E-book" and succeeding titles appear twice on the
page as headed links and as graphics - tecnical question, can these
appear as headed links.graphics to reduce clutter?

No explanation of Friday Project beneath the heading. This would be
nice. Alternatively a link to Friday Project with associated
explanation and list of books.

Heading, Start Here, etc - I don't understand, start here for what and
why?

Marked (E-Book) - When listening to Jaws speech output this sounds as
though the E-book is marked in some way. In the context of what has
gone before, Clearly this is another title and when looking at the
Braille display it is clear that E-book appears in brackets. However,
not all users have Braille displays and speech users would be unlikely
to have all punctuation turned on due to slowness of reading. A
clearer way to avoid confusion would be to have titles in quotes and
associated author would be helpful in this context and extremely
valuable information..

The half-price offer on Dan Brown doesn't indicate which type of book
this is - presumably not an e-book as it doesn't say so, but is it a
hard-back, etc?

Link to Daily News appears under Dan Brown - presumably this is a
separate item and not a book title?

Links to up to 50 per cent off, etc, Man Booker - do these refer to
E-books?

In summary, I'd prefer to see a Clear title at the top of each page in the E-Books
section stating that it is the E-Books Section, to drop e-book after
every single title and substitute the author for this. Alternatively
and perhaps even better, adopt the same structure as appears to be the
case with the rest of the site - have an author index with relevant
title. It shouldn't be necessary to have constant reference to
E-books, any more than for any other type of book if accurate page
titles are present.

Now click on the link 'Advanced search'. Try using the advanced search features to
find out how many of Kate Mosse's books are available as ebooks. How many are there
and how long did you take doing this?

I found no books by Kate moss as E-books. When tabbing through the advanced search options, having selected Kate Moss under Author and E-books under format, the search graphic did not appear. On turning off Jaws forms Mode, I found the search graphic which led to a page displaying ten titles by Kate Moss, none of which were E-books. I took just under half an hour.

Finally click on the 'Sign in link'. Try creating an account, going up to the point just before you hit the submit button. How long did it take, and how did you find the process?

I took nine minutes. Again, the graphic did not show up when tabbing through the form fields and so it was necessary to come out of Jaws Forms Mode. There were no password restrictions associated with the password field and so more time was taken correcting the password, having not initially entered it in the correct format. It would be a good idea to have password requirements below the field.

With 1 being very poor and 5 being excellent, how would you rate using the site from a customer satisfaction point of view?

Rating 3.

Three tasks on the W. H. Smiths ebooks site.

First log on to ebooks.whsmith.co.uk, (note there is no www.). Click on the 'Reference' section, and spend some time browsing through the titles that come up. How do you find navigating the results page?

This site is frustrating in that there are no headings to help divide up the material, the pages are large and finding precisely what is required is difficult when there are only

link titles to go on. Using the go to next key, letter n with Jaws, I frequently found I had to press it several times to get to relevant information and as I wasn't convinced that there was any structure to the site, I wasn't confident that I knew where I was going or that I wasn't missing vital information. Most of the link titles were clear, but not always and I feel that it would be necessary to listen to everything to be sure that I had all the information needed.

Use the 'quick search' box to find out if 'the spy who came in from the cold' is available on the site. How long did it take, and how did you find doing this?

This was easy enough and took about a minute. The page loaded quite slowly and I had to press n several times to get to the book title.

Finally, click on the 'Sign in' link and go through the process of creating an account up to the point before you hit the submit button. How long did it take and how did you find the process?

It took eight minutes. In trying to rush, I inadvertently subscribed to the Newsletter Before realising that the sign-in fields were further down the page. I would have expected sign-in to be at the top and certainly before the newsletter subscription. Having revisited the page I note that the first press of n takes me to a piece of text which says Sign-in, but this isn't the sign-in field. I eventually get to Newsletter and then to sign-in with the table and fields below. When looking initially at the site I used letter f for forms to get to my search fields, hence the mistake, through my own carelessness. I think lack of headings is a big handicap for this site.

With 1 being very poor and 5 being excellent, how would you rate using the site from a customer satisfaction point of view?

I'd rate this as 1-2.

If you want to add anything else about how you found using the site, write it here.

Appendix 4

Conferences, meetings and seminars attended for research purposes

Date(s)	Event attended
30 October 2008	Industry conference called The audio revolution
4 November 2008	17th session of WIPO Standing Committee on Copyright and Related Rights
5 November 2008	Conference on ebooks in education at Taunton
21 April 2009 and 22 April 2010	Seminars on ebooks and accessibility matters
14 September 2009, 18 March 2010 and 29 March 2011	Meetings of the UK Right to Read Alliance at RNIB, Judd Street, London
17-18 September 2009	Techshare 2009 conference at the Excel Centre, London
5 October 2009	Roundtable discussion at the Publishers Licensing Society, London, including the researcher, Alistair McNaught. Mrs E. A. Draffan of Southampton and Jim Russell of Russell Associates
20 November 2009	Disability Equality Scheme meeting of the British Library
10 February 2010	Conference on accessibility in higher education entitled "Rewiring inclusion" at the Royal College, Nottingham
4 May 2010	Event at the European Parliament in Brussels to promote the WBU's treaty on enhanced copyright exceptions for the visually impaired
16 July 2010	British Computer Association of the Blind's seminar on Apple technology

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Appendix 5

Articles published based on the material in this thesis

Whitehouse, B.G., 2010. Much ado about nothing and everything – disputes over ebooks and text-to-speech. *Logos*, 20(3-4), 142-151.

Whitehouse, B.G., 2010. Developments and tensions in the UK and US audiobooks market. *Publishing Research Quarterly*, 26(3), 176-182.

Whitehouse, B. G., 2009. A new clash between human rights and copyright: the push for enhanced exceptions for the print-disabled. *Publishing Research Quarterly*, 25(4), 219-231.

Whitehouse, B. G., Dearnley, J.A. & Murray, I.R., 2009. Still destined to be under-read? Access to books for visually impaired students in UK higher education. *Publishing Research Quarterly*, 25(3), 170-180.

Whitehouse, B.G., 2008. The Blind reader's right to read: caught between the law, the publisher and technology. *Logos* 19(3), 120-129.

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Appendix 6

Report on the accessibility of pages on Waterstone's and W.H. Smith websites provided by Mr Curt Holst of Abilitynet

Website Accessibility Report

Website Reviewed: Waterstones/WHSmiths

Consultant: Curt Holst

Date: 22nd January 2010

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Executive Summary

The pages reviewed within Waterstones/WHSmiths website require some re-work to ensure that they meet a good level of accessibility. Whilst there was evidence of best practice found on some pages (Waterstones) this was not consistent throughout. The pages tested contain a number of issues. The review identified **11** Level A compliance issues and **3** Level AA compliance issues. Some of the issues identified include:

- Numerous instances where images have not been assigned alternative text in the WHSmiths eBooks page. Blind screen reader users depend on the alternative text being provided to gauge the importance of the image. Without alternative text or empty alternative text the user has no way of gauging the importance of an image.

- Form elements in the WHSmiths eBooks page have no associated text labels. Screen reader users need to know what input boxes are for - if they are not labelled properly it is often confusing and often hard to identify what text to enter.

- Headings are not used at all in the WHSmiths eBooks page and are incorrectly used in the Waterstones pages. Headings give users a quick way to skim the content rather than plough through the whole webpage and many use the headings for navigation.

- No visible skip navigation is provided to keyboard-only users. Skip navigation allows people who navigate sequentially through content such as screen reader users more direct access to the primary content of the Web page. The WHSmiths eBooks page does not have any skip navigation present. The Waterstones pages have skip navigation but the way they have been implemented prevents them from being used by keyboard-only users including screen reader users.

- Instances were found of links, which do not make sense out of context. Screen readers allow users to display a list of links on a page. If these links do not make sense when not in the context of the page, the screen reader user will be unsure of the target of the link or its' intended purpose. Examples of this are the link text such as 'Click here' and 'Find out more…'

- Images of text are used throughout the pages. These can cause problems for users with mild vision impairments as they normally enlarge the pages by means of screen magnification software of features in their web browsers. If images of text are used they often become difficult to read when magnified unlike standard HTML text.

- Certain text items do not resize in Internet Explorer 6. This can cause problems for users with mild vision impairments as they normally enlarge the page text using the features built into the browser. For users who still

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make use of Internet Explorer 6 it is not possible for them to increase the font size in the eBooks pages tested.

For a complete summary of the issues encountered see the 'Summary of key issues' section.

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Audit process

This report reviews 4 pages of the Waterstones website against the requirements of the World Wide Web Consortium's (W3C) accessibility guidelines 2 level A and AA. The pages were reviewed on Monday 30th November 2009.

Of the 4 pages audited: **0** are level A compliant and **0** are level AA compliant.

The 4 pages tested were:

1. Waterstones Homepage   http://www.waterstones.com/waterstonesweb/
2. Waterstones Advanced   http://www.waterstones.com/waterstonesweb/displayAdvancedSearch.do
    Search
3. WHSmiths eBooks   http://ebooks.whsmith.co.uk/208C15B9-91DB-4816-ADDC-
    Homepage   85F1ADFFFFB0/10/132/ en/Default.htm
4. WHSmiths eBooks Store   https://secure.mediavending.com/ebooks.whsmith.co.uk/25848034-3593-
    Account page   4890-99F2-3D1A3767ADC5/10/132/en/Registration-
                            new.htm?Email=curt%2Eholst%40abilitynet%2Eorg%2Euk&URL=MyAcco
                            unt%2Ehtm

Specific W3C checkpoints are given as reference in the text. **Appendix A** gives a quick reference guide to WCAG 2.0. **Appendix B** contains a brief Assistive Technology Review of the site when used with assistive technology.

We welcome any questions or comments arising from this report.

Conventions used within the report

The following conventions are used within this report:

[ref: number]   This will be used to identify a particular W3C Web Content Accessibility Checkpoint.

[page number]   This will be used to identify a particular page reviewed when discussing issues and recommendations.

The page number corresponds to the same number in the list in the Audit Process and page by page breakdown sections.

`<code>`   This will be used to show code snippets.

`<code>`   This will be used to show suggested changes to code to improve the accessibility.

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Summary of key issues

Level A Conformance accessibility issues

The audit found 11 level A accessibility errors that need to be looked at:

1. **Images [ref: 1.1.1 & 4.1.2] Provide text alternatives for any non-text content –** Whilst alt text has been used on pages **[1 and 2],** pages **[3 and 4]** contains images which do not have an alternative description. An alternative description should be provided and decorative images should be marked-up with an empty alternative description (alt="").

2. **Form Inputs [ref: 1.1.1 & 4.1.2] Form inputs must have associated text labels –** On page **[3 and 4]** form elements have no associated text labels.

3. **Info and relationships - Headings [ref: 1.3.1 & 4.1.2]** On page **[3 and 4]** there are no headings used at all. Headings are important for screen reader navigation.

4. **Info and relationships - Nesting Headings [ref: 1.3.1 & 4.1.2]** While headings have been used to add structure to some pages **[1, 2]** the nesting structure is not correct. Headings need to be nested in sequence so an h1 goes to an h2 that goes to a h3.

5. **Info and relationships - Unmarked Lists [ref: 1.3.1]** Items that should be lists such as a lists of instructions found on many pages **[3 and 4]** need to be marked up semantically to ensure they make non visual sense to screen reader users.

6. **Keyboard - All page functionality is not available using the keyboard [ref: 2.1.1]: -** On page **[1]** it is not possible to activate the links in the Christmas promotion animation using the keyboard.

7. **Pause, Stop and Hide - Automatically moving, blinking, or scrolling content that lasts longer than 3 seconds can be paused, stopped, or hidden by the user. [ref: 2.2.2]** Pages **[1]** contain a changing Christmas promotion that lasts longer than 3 seconds, which cannot be paused, stopped or hidden. This can be distracting especially for screen magnification users.

8. **Bypass blocks - A link is provided to skip navigation and other page elements [ref: 2.4.1]** A visible link is not provided to skip navigation and other page elements that are repeated across web pages. On pages **[1, 2]** there are skip links coded however they are of no use as they are one not visible for keyboard users and not read by a screen reader (display:none). Page **[3 and 4]** does not contain any skip navigation items.

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9. **Link Purpose (In Context) - The purpose of each link (or form image button or image map hotspot) can be determined from the link text alone [ref: 2.4.4]** Some pages **[1, 3]** contain links that do not make sense when read out-of-context (Click here). This can be confusing for screen reader users.

10. **Language of page [ref: 3.1.1]** The default language of the page is not identified using the HTML lang attribute (<html lang="en">, for example). This is useful for screen readers to produce the correct pronunciation of text.

11. **Parsing (Validation) [ref: 4.1.1]** All pages failed to validate against the HTML grammar used in the pages.

Level AA Conformance accessibility issues

The audit found 3 level AA accessibility errors that need to be looked at:

1. **Contrast (Minimum) - Text and images of text have a contrast ratio of at least 4.5:1 [ref: 1.4.3]** On page **[3 and 4]** the **white** text on **light blue** background does not have a contrast ratio of at least 4.5:1 (3.4.1). This is an issue for users with mild vision impairments such as people with colour-blindness.

2. **Resize text - Font-sizes set in absolute units [ref: 1.4.4]** the text font-size on pages **[3 and 4]** for many text elements has been set in absolute units (pixels). This is an issue for users with mild vision impairment who make use of the browser to increase the font-size of the pages.

3. **Images of Text - Images used to represent text [ref: 1.4.5]** On all pages images of text are used. This is an issue for screen magnification users as the text in these images pixelates when magnified making it difficult to read.

Report breakdown

The following section contains a detailed breakdown of issues concerning compliance with the W3C Conformance level A and level AA checkpoints with example solutions where possible.

Level A Compliance Failures

1.   Images [ref: 1.1.1 & 4.1.2]

Why is it important? And who does it affect?

The use of alternative text (also known as 'alt tags') for pictures, text as graphics, decorative graphics, spacer gifs, form buttons and graphical links is fundamental to accessibility – it is responsible for around 30-40 percent of all problems affecting a range of disabled people accessing the web.

All graphics on a page need to be labelled correctly for a number of reasons. Blind users accessing the website via a screen reader will have only the information in the alt tag to gauge the importance of a particular image. In addition, missing alt text on graphical links and form buttons will impede the usability of the website for users accessing via voice recognition software. The usability of the website will also be significantly reduced for users with cognitive impairments or dyslexia as software packages that they use to assist them (e.g. Text Help's Read and Write) will speak the content of the page including pictures and graphical links. Therefore, if no alternative text is provided, this would reduce the readability and their understanding of the content.

The issue

On page **[3 and 4]** there are instances of images, which do not contain any alternative descriptions. Whilst alt text has been used on many images across pages there are exceptions where certain images in the template do not have an alternative description. An alternative description should be provided and decorative images should be marked-up with an empty alternative description (alt=""). See **Figure 1** below.
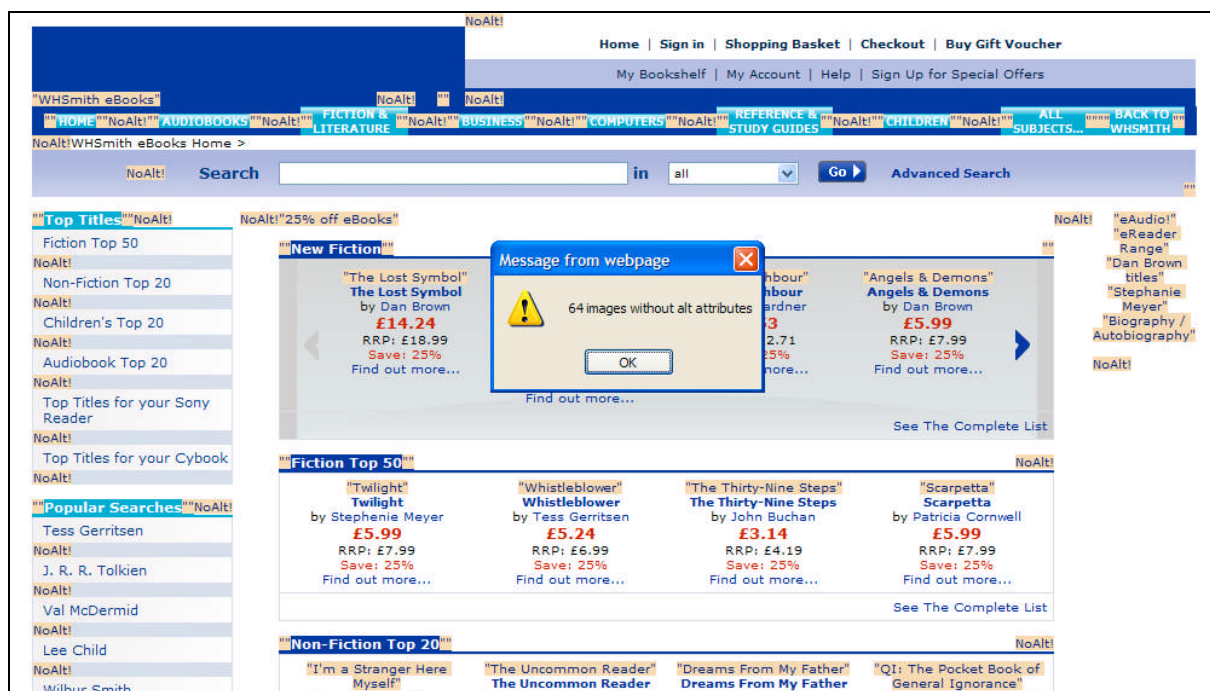
Figure 1 – No alternative text

Recommended solution
Review all images within the website. Where the images are purely decorative assign empty alternative text – alt="" so that the content is not spoken by screen reading software.

Alt text best practice
Here are some key pointers when writing alternative text to ensure it is as relevant as possible:

- Keep alt text concise and brief - avoid verbosity**.**
- If the image is a link, you must describe the destination or purpose of the link not a description of the image itself.
- For link images do not add the phrase 'click here for …' and for picture images do not add the phrase 'picture of …'.
- Where possible, start the alt text with a keyword, for example simply use 'Weather' rather than 'the weather'. This benefits screen reader users who can bring up all the links on a Web page into a 'links list' - hitting 'W' will jump them to the first item on the list that starts with 'W'.
- Images used for display purposes only, for example to add a space, need the addition of an empty alt tag (alt="").

2.   Form Inputs [ref: 1.1.1 & 4.1.2]

Why is it important? And who does it affect?

Coding forms correctly is important for accessibility, this is because blind web users using screen readers need to know what input boxes are for - if they are

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not labelled properly it is often confusing and often hard to identify what text to enter.

Web page forms can create problems for persons with low vision and for persons with reduced motor coordination. If you access a Web page form through a screen reader, then it might be difficult to associate form fields with their corresponding labels. For example, imagine that a Web page contains the following form.

```
<p>First Name:</p>
<input name="txtFirstName" />
<p>Last Name:</p>
<input name="txtLastName" />
```

This form displays input fields for a person's first name and last name. In this case, because the form is displayed in a table, it might be difficult for a user of a screen reader to associate the proper label with the proper form field. In HTML 4.0, a new tag was introduced to enable you to associate a form field label with a form field: the <label> tag. Here's how the previous form should be written using a <label> tag.

```
<label for="txtFirstName">First Name:</label>
<input name="txtFirstName" id="txtFirstName" />
<label for="txtLastName">Last Name:</label>
<input name="txtLastName" id="txtLastName" />
```

The <label> tag explicitly associates the form field labels with their corresponding form fields. Notice that the <input> fields include an id attribute, because the value of the for attribute must be an input field's id and not its name attribute.

The issue

On page **[3 and 4]** form elements have no associated text labels.

Recommended solution

Ensure that all form elements have associated labels and that they are coded according to W3C specifications.

```
<font color="#002D88"
size="2"><b>Search</b></font>  </td><td nowrap><input
type="text" class="small" name="FullTextCriteria" size="65"></td>
```

Should be

```
<label for="FullTextCriteria">Search</label>
<input type="text" class="small" id="FullTextCriteria"
name="FullTextCriteria">
```

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3.   Info and relationships - Headings [ref: 1.3.1 & 4.1.2]

Why is it important? And who does it affect?

A screen reader user can extract the headings from a document to overview a document similar to the outline view in MS Word. This gives users a quick way to skim the content rather than plough through the whole webpage. For example see **figure 2** below, which shows a screenshot of the AbilityNet homepage with a headings list window. The screen reader user can scan the headings and select an area of interest and go to the specific content on the page. Screen reader users also use headings to navigate the page.
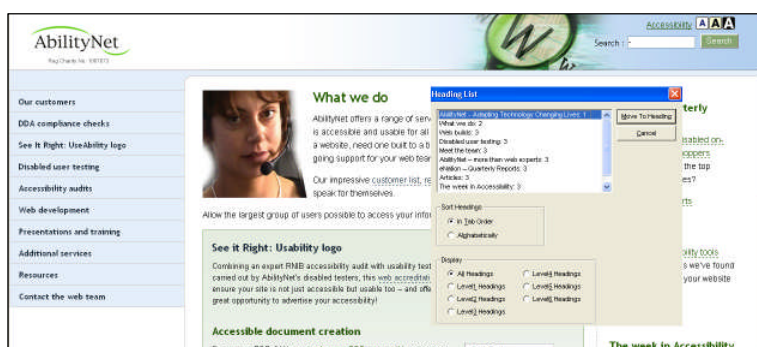
Figure 2 – AbilityNet Homepage showing Headings List

The issue

On pages **[3 and 4]** there are no HTML headings (<h1>, <h2>, etc) present. Headings are important for screen reader navigation. While headings have been used on pages **[1, 2]** to add structure, the implementation of the headings should indicate the headings on a page and conform to the W3C standards. You need to nest headings in sequence so an h1 goes to an h2 that goes to a h3.

[3 and 4]   -   No headings present – see **figure 3** below:

Figure 3 – No headings found

[1, 2] – Poor heading structure - see **figure 4** below:
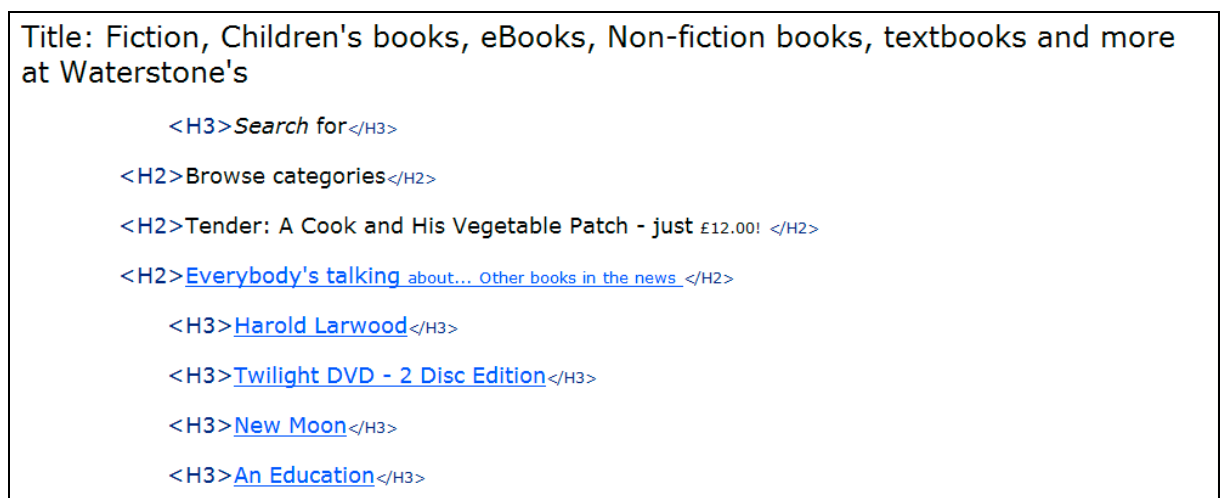

Figure 4 – Poor heading structure

Recommended solution

- Assign a logical heading structure to pages. In the case above the reading order of the page will need to be altered to ensure that the headings are correctly nested.
- Ensure that headings do not skip levels – as on page **[1, 2]**.
- Assign a heading at the top of each page, which describes the purpose of the page. This also means that the main content is distinct from the header area of the page.
- Where there are long pages of information – ensure that appropriately named headings are implemented to break up the content into sections.

This is particularly important for users accessing via screen reading software who have to listen to all content and do not have the benefit of visually locating the section they are interested in. Coding headings means that they can quickly jump to the relevant section and only listen to content within this section.

4. Info and relationships - Unmarked Lists [ref: 1.3.1]

Why is it important? And who does it affect?

It is important to only mark up items in a list, which are list items. The use of unordered and ordered lists should not be used purely for visual formatting so as to display a bullet point or number. The reason for this is that screen reader users will be dependent upon the underlying code to gain an understanding of the information being displayed.

The issue

Items that should be lists such as a top and left menu items **[3 and 4]** need to be marked up semantically to ensure they make non-visual sense to screen reader users – see **figure 5** below:

Figure 5 – Lists not marked up as lists

Recommended solution

Ensure that content which is a list of items is semantically marked up as such. If a particular style is desired then style appropriately with CSS.

_____

```
<tr>
<td>
<table cellpadding="0" cellspacing="0" border="0"
background="tab_bg.gif" style="background-repeat:repeat-
x"><tr><td><img src="tab_left.gif" border="0" alt=""></td><td
align="center"><a href="Default.htm"
class="tabs">Home</a></td><td><img src="tab_right.gif" border="0"
alt=""></td></tr></table>
</td>
<td><img src="system/spacer.gif" border="0" width="2"></td>
<td>
<table cellpadding="0" cellspacing="0" border="0"
background="tab_bg.gif" style="background-repeat:repeat-
x"><tr><td><img src="tab_left.gif" border="0" alt=""></td><td
align="center"><a href="AudioHome.htm"
class="tabs">Audiobooks</a></td><td><img src="tab_right.gif"
border="0" alt=""></td></tr></table>
</td>
<td>………………………</td>
</tr>
```

Should be

```
<ul class="..list style..">
<li><a href="Default.htm" class="tabs">Home</a></li>
<li><a href="AudioHome.htm" class="tabs">Audiobooks</a></li>
<li>…</li>
</ul>
```

Mark up list items according to web standards and style using CSS.

5.   Keyboard [ref: 2.1.1]

Why is it important? And who does it affect?

Wherever possible, content should be operated through a keyboard or keyboard interface (so an alternate keyboard can be used). When content can be operated through a keyboard or alternate keyboard, it is operable by people with no vision (who cannot use devices such as mice that require eye-hand coordination) as well as by people who must use alternate keyboards or input devices that act as keyboard emulators. Keyboard emulators include speech input software, sip-and-puff software, on-screen keyboards, scanning software and a variety of assistive technologies and alternate keyboards. Individuals with low vision also may have trouble tracking a pointer and find the use of software much easier (or only possible) if they can control it from the keyboard.

People who this affects are:

- People who are blind (who cannot use devices such as mice that require eye-hand coordination)

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- People with low vision (who may have trouble finding or tracking a pointer indicator on screen)

- Some people with hand tremors find using a mouse very difficult and therefore usually use a keyboard

The issue

On pages **[1]** it is not possible to view the Christmas savings if you use a keyboard. To a JAWS user this promotion does not exist.

Recommended Solution

Ensure that all items can be operated using the keyboard.

Use HTML form controls and links and provide keyboard-triggered event handlers using one of the following techniques:
- Use both keyboard and other device-specific functions (Scripting)
- Make actions keyboard accessible by using the onclick event of anchors and buttons
- Use redundant keyboard and mouse event handlers (Scripting)

See http://www.w3.org/TR/2008/NOTE-WCAG20-TECHS-20081211/G90 for more information.

6.   Pause, Stop and Hide [ref: 2.2.2]

Why is it important? And who does it affect?

"Moving, blinking and scrolling" refers to content in which the visible content conveys a sense of motion. Common examples include motion pictures, synchronized media presentations, animations, real-time games, and scrolling stock tickers.

Content that moves or auto-updates can be a barrier to anyone who has trouble reading stationary text quickly as well as anyone who has trouble tracking moving objects. It can also cause problems for screen readers.

One use of content that blinks is to draw the visitor's attention to that content. Although this is an effective technique for all users with vision, it can be a problem for some users if it persists. For certain groups, including people with low literacy, reading and intellectual disabilities, and people with attention deficit disorders, content that blinks may make it difficult or even impossible to interact with the rest of the Web page

The issue

Pages **[1]** contain a Christmas promotion that lasts longer than 3 seconds, which cannot be paused, stopped or hidden. This can be distracting especially for screen magnification users.

Recommended solution

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The animation should either stop after 5 seconds, allow the user to stop, pause the animations or only allow the images to cycle once. However the best solution would be to not make the images change.

7.   Bypass blocks – Skip Navigation [ref: 2.4.1]

Why is it important? And who does it affect?

Skip navigation allows people who navigate sequentially through content more direct access to the primary content of the Web page. Web pages and applications often have content that appears on other pages or screens. Examples of repeated blocks of content include but are not limited to navigation links, heading graphics, and advertising frames. Small repeated sections such as individual words, phrases or single links are not considered blocks for the purposes of this provision.

This is in contrast to a sighted user's ability to ignore the repeated material either by focusing on the centre of the screen (where main content usually appears) or a mouse user's ability to select a link with a single mouse click rather than encountering every link or form control that comes before the item they want.

- Without skip navigation it may be difficult for people with some disabilities to reach the main content of a Web page quickly and easily.

- Screen reader users who visit several pages on the same site can avoid having to hear all heading graphics and dozens of navigation links on every page before the main content is spoken.

- People who use only the keyboard or a keyboard interface can reach content with fewer keystrokes. Otherwise, they might have to make dozens of keystrokes before reaching a link in the main content area. This can take a long time and may cause severe physical pain for some users.

- People who use screen magnifiers do not have to search through the same headings or other blocks of information to find where the content begins each time they enter a new page.

- People with cognitive limitations as well as people who use screen readers may benefit when links are grouped into lists

The issue
A visible link is not provided to skip navigation and other page elements that are repeated across web pages. On pages **[1, 2]** there are skip links coded however they are of no use as they are one not visible for keyboard users and

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not read by a screen reader (`display:none`). Page **[3, 4]** does not contain any skip navigation items.

Recommended Solution

Do not use `display:none` in you CSS as this also hides it from JAWS. Position the item off the page using `position:absolute`.

Create links to skip blocks of repeated material using one of the following techniques:

- Adding a link at the top of each page that goes directly to the main content area
- Adding a link at the beginning of a block of repeated content to go to the end of the block
- Adding links at the top of the page to each area of the content

8. Link Purpose (In Context) [ref: 2.4.4]

Why is it important? And who does it affect?

Clear and concise links are fundamental to accessible website navigation. It is a particular issue for screen reader users because of the way they often view links on a page in a links list. This makes navigation easier, however, by taking links out of context, non-descriptive links such as 'click here' will not make sense.

> **Avoid links like:**
> Click here
> More
> Link
> Read
> Download

The issue
On pages **[1, 3]** contain links that do not make sense when read out-of-context (Click here). There are also links to 'Add to Basket', which are repeated, and only by assumption will a screen reader user know which item the link is related to. This can be confusing for screen reader users. See **figure 6** below which illustrates how JAWS displays the links on a page:
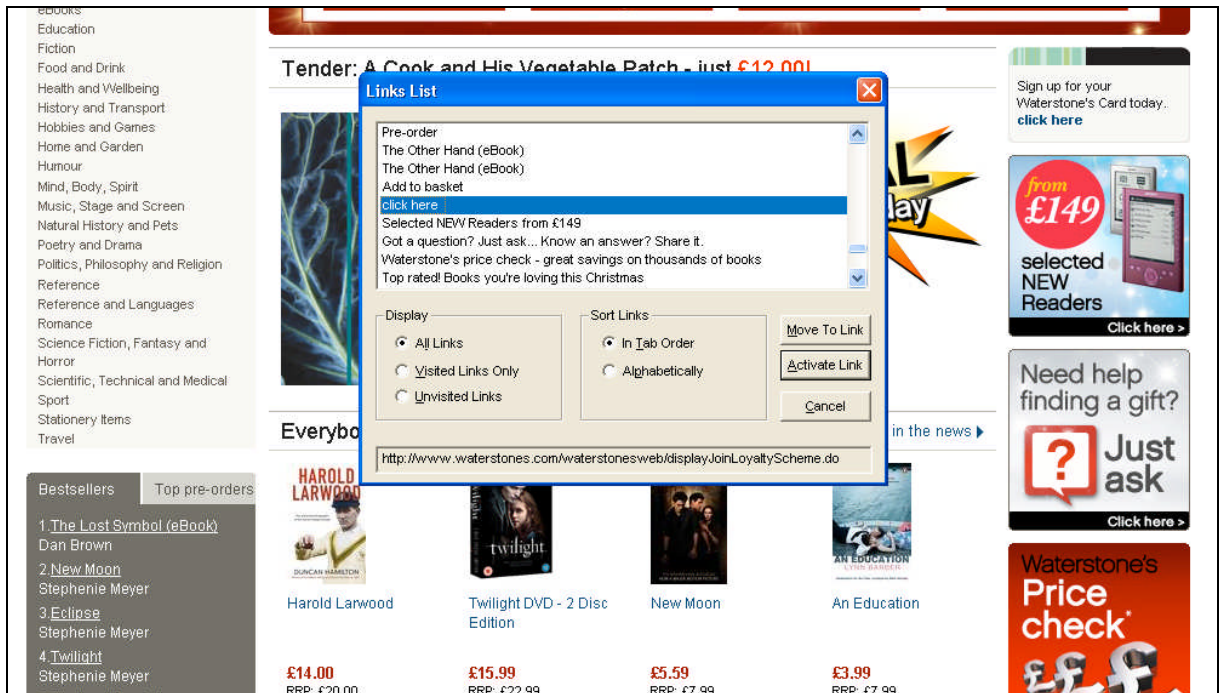
_____

Figure 6 – Links which do not make sense out of context

Recommended solution
Ensure that the link text descriptions are indicative of the target content for example 'Click here to sign up for a Waterstones card' or remove the 'click here' and simply make the link text 'Sign up for your Waterstones card today'.

For the Add to Basket links, use a title attribute stating which book 'Add to Basket' link is referring if possible.

```
<A class=fourWideButton
onclick="WT.tx_e='a';WT.tx_u='1';WT.pn_sku='6057703';dcsHandler(event)
"
href="http://www.waterstones.com/waterstonesweb/addToBasket.do?sku=605
7703"><IMG alt="Add to basket"
src="/waterstonesweb/graphics/buttons/add_to_basket_small.png"></A>
```

Should be

```
<a class=fourWideButton
onclick="WT.tx_e='a';WT.tx_u='1';WT.pn_sku='6057703';dcsHandler(event)
"
href=http://www.waterstones.com/waterstonesweb/addToBasket.do?sku=6057
703 title="Add book description to Basket"><IMG alt="Add book
description to basket"
src="/waterstonesweb/graphics/buttons/add_to_basket_small.png"></a>
```

9. Language of page [ref: 3.1.1]

Why is it important? And who does it affect?

_____

It is important to provide information in the Web page that user agents need to present text and other linguistic content correctly. Both assistive technologies and conventional user agents can render text more accurately when the language of the Web page is identified. Screen readers can load the correct pronunciation rules. Visual browsers can display characters and scripts correctly. Media players can show captions correctly. As a result, users with disabilities will be better able to understand the content.

People who use screen readers or other technologies that convert text into synthetic speech, those who find it difficult to read written material with fluency and accuracy, such as recognizing characters and alphabets or decoding words are affected. People with certain cognitive, language and learning disabilities that use text-to-speech software and those who rely on captions for synchronized media will also benefit of the language of the page is specified.

The issue

The LANG attribute not used to identify the language of the page. Screen readers use the LANG attribute in HTML and PDF to decide how to pronounce words on the page.

Recommended Solution
HTML 4.01 uses the lang attribute of the html element. XHTML served as text/html uses the lang attribute and the xml:lang attribute of the html element, in order to meet the requirements of XHTML and provide backward compatibility with HTML. XHTML served as application/xhtml+xml uses the xml:lang attribute of the html element. Both the lang and the xml:lang attributes can take only one value.

```
<html>
```

should be

```
<html lang="en">
```

10. **Parsing (Validation) [ref: 4.1.1]**

Why is it important? And who does it affect?

Adaptive technology makes the assumption that web pages have been created using specific rules and that they validate against those standards. If this is not the case it can cause quirky or unpredictable behaviour in adaptive technology software. This is also true for web browsers, since the rules for handling invalid documents are not yet standardised.

The issue

All pages failed to validate against the HTML grammar used in the pages.

_____

Recommended solution

You can use the following or similar tools to identify where the code errors are in your pages and fix them.

Mark-up validator at: http://validator.w3.org/

CSS validator at: http://jigsaw.w3.org/css-validator/

Using the latest version of (X)HTML is essential to ensure that assistive technology works correctly. If you use deprecated features it may produce unexpected results.

Pages [3 and 4] should make use of Standards Compliant XHTML and make use of CSS for layout purposes and only use tables for data. A benefit of Web standards is that they make your Web sites more easily accessible to persons with disabilities

The W3C has been steadily removing purely presentational elements and attributes from HTML (a process that they started with HTML 4.0). For example, XHTML 1.0 Strict does not include elements such as the <font> tag, or attributes such as the bgcolor attribute, because these elements and attributes are used solely to describe the appearance of a document, and they have nothing to do with a document's structure.

The W3C has been attempting to wean Web site designers and developers away from the idea that any particular tag should have any particular appearance. For example, you might think that the purpose of an <h1> tag (the heading tag) is to render large, bold text in a page. That would be wrong. The <h1> tag is used to mark a heading in a document, and nothing else. It is up to the browser to determine how the heading tag should be rendered. A screen reader used by a person with reduced eyesight might read aloud the contents of a heading tag with a booming, authoritative voice. A PDA, which doesn't support multiple font sizes, might render the contents of a heading tag with blinking text.

You should not attempt to use page elements, such as the <h1> tag, to control the appearance of a Web page. Instead, you should indicate the appearance of a Web page through the use of Cascading Style Sheets.

_____

Level AA Compliance Failures

1.   Contrast (Minimum) [ref: 1.4.3]

Why is it important? And who does it affect?

Text and images of text have a contrast ratio of at least 4.5:1.

It is important to provide enough contrast between text and its background so that it can be read by people with moderately low vision (who do not use contrast-enhancing assistive technology). Therefore, in the recommendation, the contrast is calculated in such a way that colour is not a key factor so that people who have a colour vision deficit will also have adequate contrast between the text and the background.

People with low vision often have difficulty reading text that does not contrast with its background. This can be exacerbated if the person has a colour vision deficiency that lowers the contrast even further. Providing a minimum luminance contrast ratio between the text and its background can make the text more readable even if the person does not see the full range of colours. It also works for the rare individuals who see no colour.

The issue

On page **[3 and 4]** the **white** text on **light blue** background does not have a contrast ratio of at least 4.5:1 (3.4.1). This is an issue for users with mild vision impairments such as people with colour-blindness.

Figure 7 – Colour contrasts tested using the Colour contrast analyser

_____

Recommended solution

Investigate other colour combinations, which may provide sufficient contrast.
The Colour Contrast Analyser is available from
http://www.paciellogroup.com/resources/contrast-analyser.html

2. **Resize text [ref: 1.4.4]**

Many people have mild to moderate vision impairments – which become more
common with age – need to see text at a bigger font size to read it comfortably.
The most common way this is done is to use the Text resize options under the
View menu in Internet Explorer.

The issue

In pages **[3]** and **[4]** the text font-size for many text elements has been set in
absolute units (pixels) so cannot easily be changed in Internet Explorer. For
example if you look at Figure 8 you can see most text (except for 'Search' and
'in') does not resize when you select the largest text size option in Internet
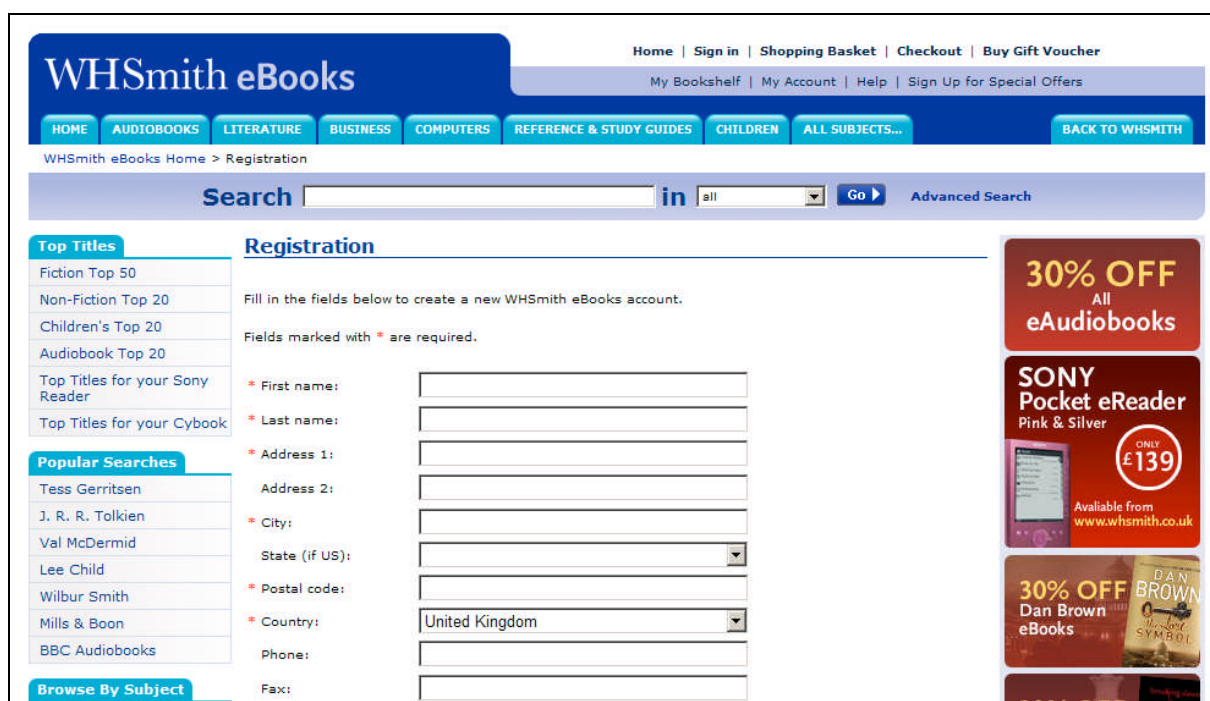Explorer.

Figure 8 – Not all text resizes

Recommended solution

The solution is to change all the text size options in the CSS which are fixed to
relative units – ems . See the article
http://www.alistapart.com/articles/howtosizetextincss/ for some background in
how to change from fixed to relative text sizes.

_____

3. Images of text [ref: 1.4.5]

Why is it important? And who does it affect?

The W3C guidelines state that when an appropriate mark-up language exists; use mark-up rather than images to convey information. Using mark-up and Cascading Style Sheets (CSS) where possible rather than images promotes accessibility as it allows text to be magnified or interpreted as speech or Braille. The added benefit is that search engines can use text information.

The issue

On pages **[1, 2, 3 and 4]** images of text are used. This is an issue for screen magnification users as the text in these images pixelates when magnified making it difficult to read.
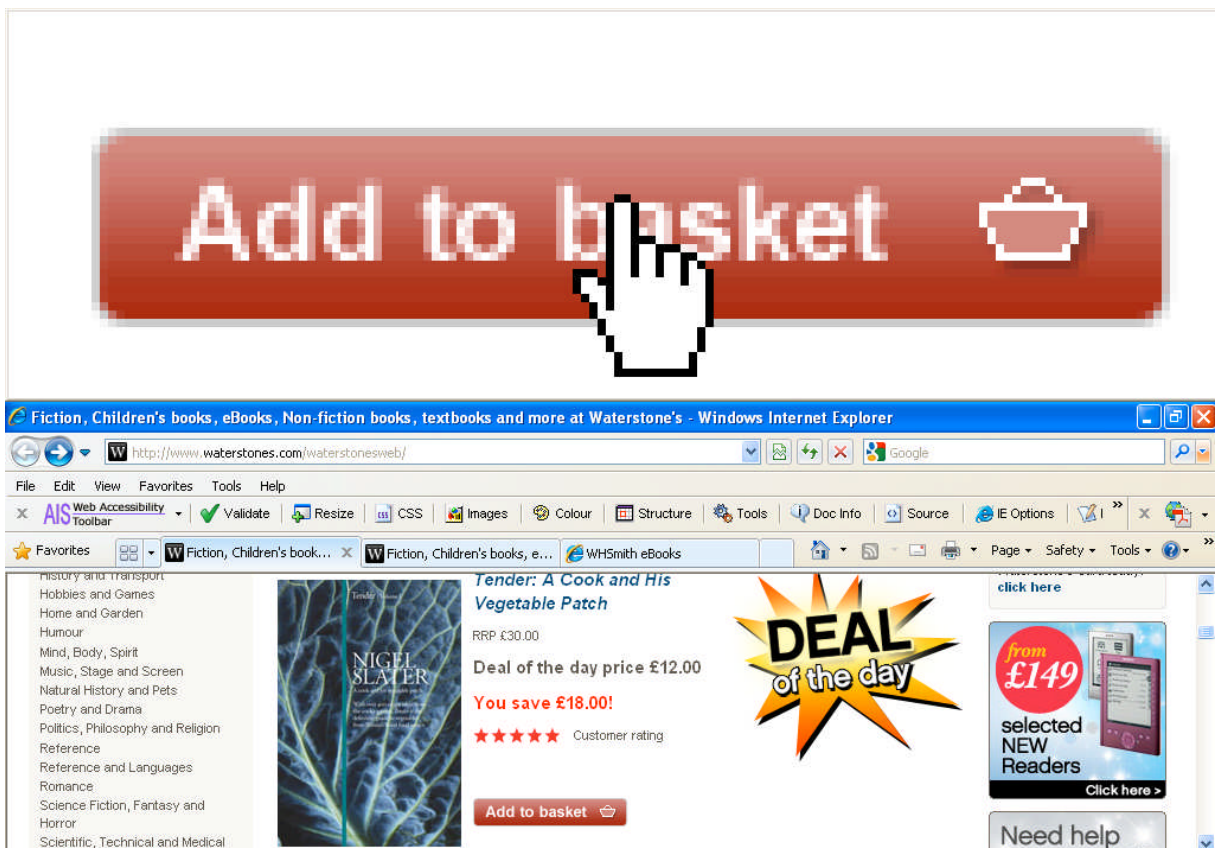

Figure 9 – Images of text when magnified

Recommended solution

Create these elements using styled HTML text or form buttons, ensuring the correct level of contrast in your stylesheets.

_____

Page-by-page breakdown

This section details a breakdown of Level A and AA accessibility issues for all 3 pages reviewed.

1.   Waterstones homepage
http://www.waterstones.com/waterstonesweb/

Level A
- **1.3.1 H42** - Semantic mark-up is used to designate headings and lists (<h1>, <ul>). However the headings are not nested correctly.
- **2.1.1** - All page functionality is not available using the keyboard. Flash movie and links is not keyboard accessible.
- **2.2.2** - Automatically moving, blinking, or scrolling content that lasts longer than 3 seconds could not be paused, stopped, or hidden by the user. Moving, blinking, or scrolling can be used to draw attention to or highlight content as long as it lasts less than 3 seconds.
- **2.4.1** - A visible link is not provided to skip navigation and other page elements that are repeated across web pages. Although there are skip links coded they are of no use as they are one not visible for keyboard users and not read by a screen reader (display:none).
- **2.4.4** - Link targets are not clearly identified. 'Click here' used and repeated 'Add to Basket' links are used which can be confusing when read out of context.
- **3.1.1** - The LANG attribute not used to identify the language of the page. Screen readers use the LANG attribute in HTML and PDF to decide how to pronounce words on the page.
- **4.1.1** - Page did not validate to the standards specified.

Level AA
- **1.4.5** - Images used to represent text.

Note: Footer text is too small. Skip links are not visible. 'Top pre-orders' links do not appear in the links list in JAWS.

2.   Waterstones Advanced Search
http://www.waterstones.com/waterstonesweb/displayAdvancedSearch.do

Level A
- **1.3.1 H42** - Semantic mark-up is used to designate headings and lists (<h1>, <ul>). However the headings are not nested correctly.
- **2.4.1** - A visible link is not provided to skip navigation and other page elements that are repeated across web pages. Although there are skip links coded they are of no use as they are one not visible for keyboard users and not read by a screen reader (display:none).
- **3.1.1** - The LANG attribute not used to identify the language of the page. Screen readers use the LANG attribute in HTML and PDF to decide how to pronounce words on the page.

_____

- **4.1.1** - Page did not validate to the standards specified.

Level AA
- **1.4.5** - Images used to represent text.

Note: Footer text is too small. Skip links are not visible.

3.   WHSmiths eBooks
http://ebooks.whsmith.co.uk/208C15B9-91DB-4816-ADDC-85F1ADFFFFB0/10/132/ en/Default.htm

Level A
- **1.1.1 F65** - Throughout the site there are instances of images, which do not contain any alternative descriptions. For images that are not critical these should be marked up with an empty alternative description (alt=""). Unnecessary use of alternative descriptions for icons causes audio clutter.
- **1.1.1 F68** - Instances where form controls do not have associated LABEL elements.
- **1.3.1** - Semantic mark-up is not used to designate headings and lists (<h1>, <ul>, <ol>).
- **2.4.1** - A visible link is not provided to skip navigation and other page elements that are repeated across web pages.
- **2.4.4** - Link targets are not clearly identified. '*Find out more…*' repeated links are used which can be confusing when read out of context.
- **3.1.1** - The LANG attribute not used to identify the language of the page. Screen readers use the LANG attribute in HTML and PDF to decide how to pronounce words on the page.
- **4.1.1** - Page did not validate to the standards specified.

Level AA
- **1.4.3** - White text on light blue background does not have a contrast ratio of at least 4.5:1 (3.4:1).
- **1.4.4** - the text font-size for many text elements has been set in absolute units (pixels).
- **1.4.5** - Images used to represent text.

4.   WHSmiths eBooks Store Account page
https://secure.mediavending.com/ebooks.whsmith.co.uk/25848034-3593-4890-99F2-3D1A3767ADC5/10/132/en/Registration-new.htm?Email=curt%2Eholst%40abilitynet%2Eorg%2Euk&URL=MyAccount%2Ehtm

Level A
- **1.1.1 F65** - Throughout the site there are instances of images, which do not contain any alternative descriptions. For images that are not critical these should be marked up with an empty alternative description (alt=""). Unnecessary use of alternative descriptions for icons causes audio clutter.

_____

- **1.1.1 F68** - Instances where form controls do not have associated LABEL elements. For required fields include the * in the <label> tag.
- **1.3.1** - Semantic mark-up is not used to designate headings and lists (<h1>, <ul>, <ol>).
- **2.4.1** - A visible link is not provided to skip navigation and other page elements that are repeated across web pages.
- **3.1.1** - The LANG attribute not used to identify the language of the page. Screen readers use the LANG attribute in HTML and PDF to decide how to pronounce words on the page.
- **4.1.1** - Page did not validate to the standards specified.

Level AA
- **1.4.3** - White text on light blue background does not have a contrast ratio of at least 4.5:1 (3.4:1).
- **1.4.4** - the text font-size for many text elements has been set in absolute units (pixels).
- **1.4.5** - Images used to represent text.

_____

Appendix A - W3C WCAG 2.0 Quick Reference

1.1 **Text Alternatives:** Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language

1.2 **Synchronized Media:** Provide synchronized alternatives for synchronized media

1.3 **Adaptable:** Create content that can be presented in different ways (for example simpler layout) without losing information or structure

1.4 **Distinguishable:** Make it easier for users to see and hear content including separating foreground from background

2.1 **Keyboard Accessible:** Make all functionality available from a keyboard

2.2 **Enough Time:** Provide users with disabilities enough time to read and use content

2.3 **Seizures:** Do not design content in a way that is known to cause seizures

2.4 **Navigable:** Provide ways to help users with disabilities navigate, find content and determine where they are

3.1 **Readable:** Make text content readable and understandable

3.2 **Predictable:** Make Web pages appear and operate in predictable ways

3.3 **Input Assistance:** Help users avoid and correct mistakes

4.1 **Compatible:** Maximize compatibility with current and future user agents, including assistive technologies

The full WCAG 2.0 guidelines can be found at:
http://www.w3.org/TR/WCAG20/

Also useful if a comparison document of WCAG 1.0 and WCAG 2.0 draft
http://www.w3.org/TR/2006/WD-WCAG20-20060427/appendixD.html

Appendix B – Assistive Technology Review

1.   *Screen Reader*

On the Waterstones homepage headings are used so it is fairly easy to skip to the sections on the page. Using headings for book title is not absolutely necessary, as screen reader users want a quick overview of the sections of the page. There are already many links on the page, which can be overwhelming. There does not appear to be any skip navigation present.

Menu items are coded as lists making it easier to navigate. The links in the top menu are mildly irritating as the screen reader end ever link description with 'on mouse over' which is caused by the use of scripting events which are triggered by a mouse. Other links like the main menu work well as they are lists and the access keys (shortcuts) are read.

There are vast amounts of links present on the page, which can be overwhelming. There are also repeated 'Add to basket' links that do not entirely make sense out of context, however assumptions can be made that the correct one to choose is the one after the title. There is also an instance of a 'Click here' link that does not make sense out of context. If a mobile or scaled down version of the site was available it may be more usable for screen reader users and for those with learning difficulties.

Images are given good alternative descriptions in pages **[1 and 2]**.

When navigating to the Advanced Search page it is noted that the title of the page does not change causing the user to check if they have in fact navigated to another page. It is considered best practice to use unique and descriptive page titles for each page. The title is also very long (likely for search engine listing) and a shortened unique title is recommended.

Once again headings are used making it easy to navigate the page. No skip links are available. The forms are well coded and easy to use.

In the eBooks homepage the first thing noted is that lists and headings are not used. The page is also developed using tables which is not best practice. There are also no skip to links making this page very tedious to navigate. There are instances of buttons without a description causing confusion. There are a number of images without an alternative description. This is most apparent in the main menu, which reads "No alt – quote, quote, Home, quote, quote" and so on. There are a number of 'Find out more' links, which do not make sense when read out of context.

On the eBooks Registration page the only additional issue encountered is that when in forms mode, required fields cannot be determined which may cause errors.

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2. *Keyboard-only*

It is possible to navigate most pages using the keyboard only. On the Waterstones homepage it is not possible to view the Christmas savings if you use a keyboard. To a JAWS user this promotion does not exist. As there are no skip to links for keyboard only users, the sites can be tedious to navigate (screen reader users can navigate using headings).

3. *Screen Magnification*

On page **[1 and 2]** it is possible to enlarge the text on the page in Internet Explorer 6.

On the eBooks page **[3 and 4]** some of the text used is very small and it is not possible to use the features built into Internet Explorer (View – Text Size – Largest).

When using screen magnification software the major issue encountered was the use of images of text on the pages, which made the text difficult to read. The screen cursor was followed when using the TAB key however the layout did resize in the window causing the user to use horizontal scrolling.