



Project Report:

**Guidance on Accessibility for JISC Exchange for
Learning and Digital Libraries in the Classroom
Projects**

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TechDis is a service of **JISC**, the Joint Information Systems Committee

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Introduction

The JISC TechDis service aims to be the leading educational advisory service, working across the UK, in the fields of technology, disability and inclusion. TechDis aims to enhance provision for disabled students and staff in higher, further and specialist education and adult and community learning, through the use of technology.

TechDis has been undertaking research for the JISC on the issues of guidelines and advice that is available to services involved in its Exchange for Learning (X4L) and Digital Libraries in the Classroom (DLiC) projects. This report discusses some of the outcomes and areas that will need further clarification, research and development.

This report contains the following sections

- Legislative Compliance
- Available Guidelines
- Supporting the sectors

It should be stated at the outset that this work bears relevance only to e-learning in UK education institutions, it does not, nor does it seek to influence any existing guidelines pertaining to the Internet (Such as the W3C WCAG 1.0 guidelines) nor any issues of interoperability and metadata.

Legislation

The project requested that TechDis review both UK and US legislation.

The relevant legal requirements with regard to accessibility of e-learning in the UK are contained in the Disability Discrimination Act 1995 (DDA). This wide-ranging piece of legislation covers the rights of disabled people in a number of different contexts: employment (Part 2), the provision of goods, facilities, services and premises (Part 3) and education (Part 4).

With regard to e-learning by higher and further education institutions (the 'institution') in the UK, DDA will therefore apply in respect to two distinct areas: the supply of the e-learning package or product by a supplier and the provision of the e-learning product or service by the institution to the student.

The supply of the e-learning package by the supplier will generally come within the scope of Part III of the DDA. The provision of the e-learning product or service by the institution to the student will be come within the scope of Part 4 of the DDA.

The supply of e-learning applications by a supplier

Depending on the way in which the supplier provides the e-learning application, Part 3 may cover the e-learning application itself. The key element here is whether the e-learning application is a product or service. Part 3 covers the provision of 'services', which includes the provision of goods and facilities (s.19). It is clear from the Code of Practice on Rights of Access to Goods, Facilities, Services and Premises (DRC, 2002a) (the 'Part 3 Code'), that this does not extend to the actual product itself. The supplier will not be subject to the duties contained in Part 4 as it is not a 'responsible body'.

Discrimination under Part 4 of the DDA

In determining whether a service provider is providing a service to the public, the Part 3 Code makes it clear that the Part III obligations also cover a service provided exclusively to or aimed at other businesses. It is noted at para 2.16 of the Part 3 Code that a disabled person may be accessing services on behalf of an organisation, for instance as an employee. The service provider will therefore have to ensure that in providing its service that it does not discriminate against disabled employees of the recipient by denying that person access or providing a lower standard of service than it would offer a person without that disability.

Product vs the provision of goods and service

In practice, this means that the supplier should follow the Part 3 Code to ensure that the way in which it provides access to the materials made available through the e-learning application does not discriminate against a disabled person. However, this duty is unlikely to extend to ensuring that it provides the materials themselves in an accessible format. The Part 3 Code states at para 2.40 that the DDA does not cover actual products, but rather the provision or access to that product or service. During the DDA's passage

through Parliament, the incumbent Minister of State, Lord Mackay, stated that:

This is the case even where the product could be regarded as 'information'; for example, newspapers, books and television programmes. There will therefore be no requirement for those items to be made available in an accessible format." (Hansard vol. 566, col 251)

An e-learning application as a service

What is unclear at present is how this duty to make the provision of the service accessible interacts with the lack of a requirement under the DDA to make the goods themselves accessible. As an analogy, if the supplier were to provide materials on CD-ROM and sell these materials from a conventional bricks and mortar shop, the duties in relation to the provision of a service would extend only as far as accessing and entering that shop and the physical process of purchasing the materials.

However, in giving examples of services covered by Part 3, the DDA lists 'access to and use of information services' (s.19(3)(c)). It is unclear at present how far one can interpret this category. In the case of e-learning applications provided online, arguably, every single website on the Internet is an 'information service', in that it ostensibly is a service that provides information to the person accessing it. Further, it is possible to argue that the 'use' of an information service includes accessing the actual information that that service provides, as opposed to simply using the service that provides the information. If this interpretation is correct, it is possible to argue that the DDA requires that service providers must make materials and information available in an accessible form, rather than just that the mechanism for accessing this information is accessible.

Unfortunately, the guidance offered by the Part 3 Code does not provide assistance in answering this question. In that respect, it is unfortunate that the website used for an example of a service is that of an airline's booking website. For the purposes of this paper, it is also difficult to reach a definite conclusion. Whilst for the majority of websites Part 3 will set out a definite accessibility requirement, those that are a mechanism for delivering content for e-learning could arguably only be subject to the DDA to the extent that the site is a service for accessing the material, but not for the material itself. Ultimately, it is likely that a definitive issue on this answer will only be reached when a court is asked to rule on the issue.

Summary of legislation applying to the supplier

In relation to the provision of e-learning applications to an institution, it is therefore likely that the supplier will only be under a direct duty towards the students if it is providing that service direct to the student through a website and even this may only apply in respect of the delivery, rather than the content. If the supplier is instead providing the institution with a software product or a bespoke software solution, it is extremely unlikely to have any direct legal obligations to provide the institution with an accessible e-learning application.

The provision of e-learning to students by an institution

The provision of e-Learning in the UK is in general covered by Part IV of the DDA. Part IV of the DDA was amended by parliament passing the Special Educational Needs and Disability Act 2001 (SENDA) and the new provisions were brought into force on 1 October 2002. Higher and further education institutions are classed as 'responsible bodies' within the meaning of Part 4.

Under Part 4, institutions are under a duty not to treat disabled students less favourably, without justification. Where the institution is or is likely to be treating the student less favourably, the institution is required to make reasonable adjustments so that those students who might otherwise be being discriminated against are not at a substantial disadvantage compared to those students who are not disabled. Amongst the obligations to which the institution is subject is a duty not to discriminate against a disabled person in the 'student services' that it provides or offers to provide.

Student services

If the student subscribes to, or accesses an e-learning application directly, (for instance a service which is available to the public to access), the service is likely to be covered by Part 3 of the DDA and the onus to comply with the DDA will lie with the supplier and not the institution (as discussed above).

'Student services' are not defined in Part 4, but the Code of Practice for Providers of Post 16 Education and Related Services (DRC, 2002b) (the "Part 4 Code") sets out a number of examples which are relevant to the provision of e-learning applications by an institution:

- Teaching (including classes, lectures, seminars and practical sessions)
- Curriculum design
- Examination and assessments
- Distance learning
- Independent learning opportunities (such as e-learning)
- Learning equipment and materials, such as laboratory equipment, computer facilities and class hand outs et cetera
- Information and communication technology and resources

It is therefore possible that learning and resource services provided by third parties through an educational institution will be come within the scope of several student services.

Accessibility of student services

In subscribing to and providing e-learning applications to their students, institutions therefore need to take into account the accessibility of the application. This includes whether the course design and use of the resource

will result in the less favourable treatment of a disabled student without justification. Justifications are extremely limited and generally apply only where it is necessary to maintain academic standards or to comply with prescribed standards (for instance by an external body such as the Law Society in relation to a law degree or the General Medical Council in relation to medicine).

The institution must consider whether any discrimination that arises from a disabled student being unable to access such a subscription service amounts to less favourable treatment and whether any reasonable adjustments should be considered. A duty to make reasonable adjustments exists where the disabled student is at a substantial disadvantage compared to that of other students. In assessing whether a student is at a substantial disadvantage, the institution should have regard to the time, inconvenience, effort or discomfort that the disabled student might encounter, compared to that of other students. The institution therefore needs to weigh up the actual effect of the disabled student being unable to access the service. As the reasonableness test is an objective test, what is reasonable in a particular scenario will depend on individual facts and circumstances.

For instance, if the service is required in order for the student to complete the course it is likely that that this will place the student at a substantial disadvantage. However, if the service is simply auxiliary or an additional resource it may be that there is no substantial discrimination against the student. In the case of services offering access to materials and resources however, it is likely that an inability to access this will invariably place the disabled student at a substantial disadvantage.

Reasonable adjustments in practice

If this is so, the institution then has a duty to make reasonable adjustments. As the institution's control over the design and structure of the service is likely to be by the licensing conditions of the service, it is unlikely that the institution itself will be able to make the necessary changes without the consent of the supplier. For instance, if the disabled student encountered problems logging into the service or searching for and accessing the content, such accessibility problems will be caused by the design of the supplier's website which provides access to the service. As the supplier will invariably host this remotely on its own servers, the institution will be unable to make the necessary changes to ensure accessibility. In such situations, a reasonable adjustment is likely to mean choosing a supplier whose website is accessible.

If the e-learning application is a product that the institution purchases and hosts itself, it is likely that licence conditions will impose similar restrictions on the institution's ability to rectify any accessibility problems. Reasonable adjustments in this case would probably mean choosing an application from a supplier who provides accessible products.

If this is not possible, the institution should consider other possible adjustments. For instance, it may be possible to use the Copyright (Visually Impaired Persons) Act 2002 (CVIPA) to produce accessible copies of the materials published by the service provider for students with visual

impairments. The CVIPA allows 'approved bodies' (which includes educational establishments) to make and supply to disabled people accessible copies of a master copy which the approved body is in possession of. However, the CVIPA only applies to literary, dramatic, musical or artistic works, not films, sound recordings. Whilst this would not be relevant to the particular example considered above (as the digitised TV programs would presumably come within the 'film' category), it may be possible to use the rights given by the CVIPA in relation to other text-based databases - for example Lexis Nexis, Westlaw etc.

Alternatively, if the content or teaching materials are audio-visual materials, the institution may wish to consider providing transcripts of the materials available through the service, providing a set of materials specifically designed for disabled students who cannot access the application or adjusting the particular element of the course or assessment that requires the student to access the application.

Impact of European legislation on e-learning

Whilst JISC did not request a section on European Legislation, the team deemed it important that this was covered given the number of projects being undertaken in UK Institutions with European partners. However, at the time of writing, EU legislation in relation to disability discrimination is limited. Whilst the EU has issued informal requirements for member states to comply with in respect of their public websites, no specific legislation is forthcoming in relation to the accessibility of non-governmental websites or services. In particular, there is no EU equivalent of section 508 in relation to procurement of ICT by member states (as discussed below).

In the event that the EU does decide to legislate in this area, the process would take a number of years. At present, the time taken for a proposal to become a directive is probably averaging around four to seven years depending on the amount of negotiation required. Once the directive is passed, member states will then be given a further period within which to implement the directive. Accordingly, even if the EU were to decide to legislate in this area in the next couple of months, it is unlikely that such a law would come into force until 2010 at the earliest.

Summary of UK requirements

Legal obligations imposed under the DDA require institutions to ensure that any e-learning applications that they use in the course of providing educational services to students are accessible. In meeting its obligations, the institution should ensure that it considers this when procuring new software.

Institutions should note, however, that in many cases there might be no obligation on the developer of the e-learning application to make its product accessible under the DDA. Whilst the accessibility of off-the-shelf purchases is out with the control of the institution, in the event that one product offers greater accessibility over another, the requirements to make reasonable adjustments under the DDA means that, unless there good reasons not to, the institution should choose the accessible application.

Institutions should consider similar issues when procuring or developing bespoke e-learning applications, and, where third parties are developing applications, the functional specification should require that the application is as accessible as possible. The greatest problem here is in attempting to define 'accessibility' sufficiently and providing an appropriate benchmark. Those in charge of the technical aspects of procurement will require to address this issue when setting out the specification.

Summary of US requirements

The research demonstrated that there is little relevance to the UK from the US Legislation and so only a summary is provided here. A number of different pieces of legislation apply to the provision of e-learning applications and, in many respects; the laws in the US are far more developed than those in the UK.

Third parties who wish to contract with federal agencies and (as section 508 is adopted at State level) Colleges are required to meet the specific guidelines in Section 508. The effect of Section 508 is to increase the accessibility of products and solutions available on the open market and to encourage an 'accessibility' culture in the development of bespoke solutions.

Section 504 and Title II of the ADA back up the requirements in Section 508 by setting out obligations for public entities and those in receipt of federal funds. These obligations mean that institutions subject to these Acts are required to ensure that they do not discriminate against students with disabilities when providing access to e-learning.

Legislative Conclusions

In summary, this research has shown that the institutions themselves are under similar obligations in the UK and US in respect to the actual **provision** of e-learning. Legislation in both countries requires that institutions do not discriminate against students with disabilities when providing student services and gives those students rights in the event of such discrimination.

The main difference between legislation in the UK and the US is Section 508. Whilst Section 508 is not, at present, generally directly applicable to institutions, it is evident that a number of States are adopting this legislation and requiring institutions in receipt of State funds to comply with its provisions when procuring ICT. This, coupled with the general buying power of federal agencies, has the effect of requiring software developers (including those developing e-learning applications) to ensure that the applications that they produce comply with the guidelines developed by the Access Board under Section 508. This benefits not only institutions in the US, but also those in the UK.

As the accessibility of products on the marketplace increases, the easier it becomes for institutions to ensure that they do not discriminate in the provision of e-learning. The corollary of this is that as standards increase the corresponding level of expectation will also increase.

Guidelines

TechDis are conscious of not reinventing the wheel and undertook to look at existing advice and guidance rather than immediately set out to establish a TechDis set.

To that end 13 sets were reviewed that offered a broad spectrum of the kind of material available. These included advice from a range of National and International organisations, Charities and Institutions.

What became apparent very early in the research was that no one set of guidelines would encapsulate the advice that was needed. In many cases the guidelines addressed the technical issues but either did not recognise the learning in e-learning or isolated it.

The table on the following page outlines the guidelines that were reviewed.

Summary table: characteristics of accessibility guidelines / resources

	WCAG1.0	WCAG2.0	Access Board	IMS	NCAM	Georgia Tech	Burt	E-Gov Unit	Epic	NLN	Ufl	Uni Aberdeen	Uni Greenwich
overall scope	web access	web access	web access	online learning	blended learning	online learning	online learning	web access	online learning	online learning	online learning	online learning	online learning
technology scope	W3C	agnostic	W3C + prop	W3C + prop	W3C + prop	prop + W3C	W3C	W3C + prop	W3C	W3C	prop	prop + W3C	prop + W3C
knowledge approach	info	Info	info	info	info	instruct	info	info	info	info	info	info	info
knowledge level	mainly expert	mainly expert	expert	mainly expert	mainly expert	mainly novice	mainly novice	expert	mainly novice	expert	expert	mainly novice	mainly novice
target constituency	all web sectors	all web sectors	Gov web	e-l sector	e-l sector	e-l sector	e-l sector	Gov web	e-l sector	e-l sector	e-l sector	HE institution	HE institution
enforcement approach	vol. conform	vol. conform	man. comply	vol. conform	vol. conform	vol. conform	vol. conform	vol. conform	vol. conform	man. conform	man. conform	vol conform	vol. conform

Abbreviations

'web access' = web accessibility
 'W3C + prop' = W3C technologies mainly with some proprietary technologies
 'prop + W3C' = proprietary technologies mainly with some W3C technologies
 'info' = informational
 'instruct' = explicitly instructional
 'expert' = web technology expert

'novice' = web technology novice [i.e. does not take account of e-skills or disability knowledge]
 'gov web' = government web sites and services
 'e-l sector' = e-learning sector (includes educational and corporate)
 'vol. conform' = voluntary conformance (with guidelines)
 'man. conform' = mandatory conformance (with specifications)
 'man. comply' = mandatory compliance (with standards)

Supporting the Sectors

The work undertaken here as had a huge impact on the work of TechDis in developing an approach to supporting e-learning that is both relevant to the role that JISC plays in innovation and development in e-learning and the needs of disabled students and staff across both the JISC Community and the wider communities that inevitably this work will impact upon.

The rationale is to recognise that there is vast combination of users, needs and technologies that impact on the accessibility of e-learning. The proposed process (overleaf) aims to give all staff involved in e-learning an opportunity to understand the impact on various user groups and recognise where interventions, alternatives or adjustments may be required.

It does not, nor does it seek to provide a compliance document, rather it seeks to provide a rationale for activities and an opportunity to identify inclusive practice within one's own practice.

TechDis are now leading a cross sector multiple agency (including JISC Cetis, DFES, in particular the Standards Unit, NIACE, LSDA and Becta) initiative to further develop the approach and establish its relevance to e-learning.

Over the coming months the development of the approach outlined below will be tested with staff involved in e-learning and modified as needed. As the approach grows and develops a series of materials will develop which will be used to exemplify the approach and produce contextual examples of practice for staff across the educational sectors.

Suggested Approach for future:

In recognising that the issues of accessibility and e-learning are not just technical but also social it was felt that a social statement was needed to highlight acceptance of an underpinning belief. This statement used at the beginning of the process provides a base for the creation of e-learning materials that are inclusive; it is the starting tenet from which this approach to supporting learners developed and will continue to develop.

All learners, regardless of disability, social and cultural background or previous experience, should be provided with educational experiences that meet their learning needs.

Therefore, the following framework aims to provide a process that will assist staff involved in the development, deployment and use of e-learning to assess how disabled learners needs are being met either in the use of e-learning or by the use of e-learning.

