

The University of Bradford Institutional Repository

<http://bradscholars.brad.ac.uk>

This work is made available online in accordance with publisher policies. Please refer to the repository record for this item and our Policy Document available from the repository home page for further information.

To see the final version of this work please visit the publisher's website. Available access to the published online version may require a subscription.

Link to publisher's version: <https://alissnet.org.uk/aliss-quarterly/aliss-quarterly-past-issues/>

Citation: George S and Coussement K (2016) Accessibility for all: engaging library staff in auditing electronic resources. *ALISS Quarterly*, 11(3): 24-30

Copyright statement: © 2016 Association of Librarians and Information Professionals in the Social Sciences (ALISS). Reproduced in accordance with the publisher's self-archiving policy.



Accessibility for all: engaging library staff in auditing electronic resources¹

Sarah George² and Katherine Coussement³

Print impairment and academic libraries

Since the introduction of the Special Educational Needs and Disability Act (2001), academic libraries have been obliged to provide accessible texts for users who find printed works a barrier. Print-impairment can occur for a range of reasons including visual impairment, specific learning difficulties and motor difficulties, and affects 10-15% of the European population (Hilderley 2013). For many students, reasonable adjustment has involved the provision of texts in alternative formats (alt-texts) on a case-by-case basis for individual students. Some parts of this process have become more streamlined with the introduction of services such as Load2Learn (now the RNIB Bookshare UK education collection, Royal National Institute of Blind People 2016): 60% of the 147 alt-format requests submitted to the University of Bradford library⁴ were fulfilled within the week, with 40 supplied on the same day. However, this still leaves a long tail of requests:

11 (7.5%) took 7-14 days
5 (3.4%) took 15-21 days
2 (1.4%) took 22-28 days
8 (5.4%) took more than a month
3 (2.0%) took more than two months
29 (19.8%) were not supplied at all.

These delays obviously leave the students concerned at a severe disadvantage compared to their peers. Additionally, even the most streamlined of alt-format requests do not give equality of experience for print-impaired students. As each item has to be requested individually and with a time delay, however small, literature searching for a student depending on alt-formats lacks the spontaneity and serendipity experienced by other students. Alt-format requests can also be time-consuming and often repetitive and frustrating for staff, tying up specialists' time that could be better employed in one-to-one interactions with students.

Electronic resources have the capacity to offer print-impaired students a dizzying range of accessibility options, from zoom, reflow and screen-reading for those with visual impairment, auto-scroll for motor-impaired users to changes of font and background colour for those with specific learning difficulties (Hilderley 2013). However, accessibility features are often inadvertently blocked by Digital Rights Management (Kramer 2007) or over-ridden by concerns for styling and branding (George et al 2013, Turró 2008). One method of quantifying and addressing this problem is to

¹ Article accepted for publication in ALISS newsletter, May 2016

² s.george@bradford.ac.uk

³ k.coussement@bradford.ac.uk

⁴ Statistics from 2014-15 academic year

undertake a systematic audit of the accessibility features of electronic resources (Smith 2011, ASCALA 2014).

Accessibility audits

In 2013, the University of Bradford library employed a graduate intern to conduct a pilot audit of the accessibility of online resources (George *et al* 2014). The aims of the audit were:

- To provide guidance to print-impaired students on the most accessible interfaces and browsers
- To inform purchasing decisions based on the accessibility of resources
- To share best practice with other libraries
- To lobby publishers to improve their interfaces

In the summer of 2014, a revised and expanded audit was undertaken by frontline library staff. The move to using library staff rather than students or recent graduates was driven partly by the need for a more systematic and consistent approach, and partly by pragmatic concerns of availability: over the summer vacation the library remains open and service points need to be staffed, but there are fewer face-to-face enquiries. This allows staff to engage in background tasks as long as these can be completed at the service points. Another driver was the findings of our library Graduate Trainee's project on disabled students' perceptions of the library (Mann 2013). Library staff fed back to her that, although there was a comprehensive training programme on accessibility issues, they felt that they lacked confidence and relied heavily on the designated accessibility expert, causing problems when she was not in the library.

The audit was voluntary but practically all frontline staff agreed to take part, possibly as a more exciting alternative to the ongoing task of replacing spine labels! Each staff member chose a resource from a centrally-held spreadsheet then answered a list of questions about it, scoring the presence or absence of features or grading more subjective traits such as contrast or clutter. The scores were entered into the spreadsheet which then produced overall accessibility scores plus individual scores for the accessibility of the resource for users with various types of print impairment:

- Visual impairment (zoom, contrast, reflow, read out loud, alt-text for images etc)
- Specific learning (font change, colour change, read out loud etc)
- Motor impairment (auto-scroll, keyboard-only navigation etc)
- Autistic spectrum (adverts, animations etc)

A full list of the criteria tested in the audit is in the appendix.

Reflections on the accessibility audit

Over all, the feedback received by staff undertaking the accessibility audit was positive. Staff appreciated the opportunity to engage with electronic resources in a stress-free situation, and felt more confident that they would be able to help students with enquiries. They also felt that they had gained a valuable insight into the range of barriers encountered by our students.

“As a new member of staff, I was able to learn more about the resources that are available to students and how they find and use them. The accessibility audit helped me to look at Websites and E-Resources in a different way and highlighted the problems students could encounter whilst accessing the databases”. (Quote from staff member who took part in the accessibility audit)

However, there were problems which anyone undertaking their own audit could consider. Firstly, the list of criteria was far too long and detailed. Having piloted the study with the Graduate Intern we decided that the question list would not need further scrutiny before staff started the audit. However, we had not considered how much more thorough library staff would be, so the list was extremely time-consuming. Some criteria were the same for every resource (for instance, there was no resource on which the tBAR did not work) so could have been excluded; also as the pilot had established that Google Chrome was overall the best browser for accessibility features we could have excluded all other browsers from the staff audit. Secondly, many of the criteria were subjective (eg colour contrast or the amount of clutter on the home page) so we should have provided more guidance to reduce inter-observer error. Staff were regularly discussing how they were grading these criteria but we could have formalised these contacts via a weekly meeting and / or an online resource such as a wiki. Finally, we did not factor in time for the vital follow-up of lobbying publishers, and this has yet to be done.

Future work

As interfaces are constantly changing, the accessibility audit will always be a work in progress. We keep a watch on developments and re-audit resources where radical changes have occurred, and staff have expressed an interest in repeating the experience regularly to keep their knowledge current. This summer we will repeat the audit with expanded terms of reference and a more collaborative outlook and also, for the first time, on a range of hardware. The library has recently purchased a Mac and an Android tablet using money from a teaching excellence award so resources will be tested on these as well as PCs. Staff will thus be able to become familiar with both electronic resources and a range of devices whilst undertaking the audit.

Of the initial aims of the project, we have been able to use the work of the audit to guide students towards the more accessible resources. Of course, the resources they need are not always on the most accessible platforms, but the knowledge that Google Chrome is generally the most accessible browser has been useful. Subject librarians are now more aware of the accessibility of electronic resources and use this to inform purchasing decisions wherever possible, though often key resources are only available on a single platform so there is little room for manoeuvre. We advise academic staff against recommending as key reading books that are not available electronically or only available in poorly accessible formats. We have shared the results of this work widely with networks such as the Open Rose (University of Sheffield 2016) and Northern Enabling Groups (Northern Collaboration 2016). The next stage is to start lobbying publishers to render their platforms more accessible.

Appendix: List of questions for accessibility audit

Answer the following questions about the Database home page

- 1. Is it easy to find the log-in box?**
Did you find the login box straight away? Are there any other login boxes that could cause confusion (eg for personal profiles)
- 2. Is it easy to find the main search box**
Did you find the search box straight away? Are there any other boxes that could cause confusion?
- 3. Can you navigate using just the keyboard?**
Use the tab and arrow keys to move around the screen - does it work in a logical order? Can you navigate to and type into the search box using just the keyboard?
- 4. Do the default colours offer sufficient contrast?**
Is the screen easy to read?
- 5. Are links visible and identifiable as such?**
Can you determine what is and isn't a link without clicking?
- 6. Are link colours clear?**
Can you easily read the text of the links, even once they have been clicked?
- 7. Does the t-Bar colour overlay work?**
This should be downloaded onto your machine⁵. Double-click the icon on your desktop to launch the programme. It will give you a coloured overlay through which you should be able to read the screen. Right click and choose Exit or Minimise when you have finished using the programme.
- 8. Does the browser zoom work?**
Use CTRL + to zoom in and CTRL - to zoom out. Does the text remain clear and readable?
- 9. Are there animations on the site?**
Are there any moving images on the front page? If so, can you switch them off? If you hover over the animations or right click is there an option to suppress or disable them? Score as following: 3 for no animations, 2 for animations that are easy to switch off, 1 for animations that are difficult to switch off and 0 for animations that are impossible to switch off.
- 10. Is there advertising on the site?**
These will normally be fairly obvious!
- 11. Are there any accessibility aids on the home page? For instance, built-in ways of changing colour, read out loud, zooming, changing contrast etc**
Look around the home page – are any of these things mentioned?

Answer the following questions about the Accessibility and Help pages.

- 12. Is there any mention of built-in accessibility aids? For instance, built-in ways of changing colour, read out loud, zooming, changing contrast etc**
These are mentioned very rarely, but it's worth a look!

Answer the following questions about the Results screen

- 13. Are the navigation tools consistent?**
Do the same buttons do the same things in different screens?
- 14. Are the menu bars in the same place in all screens?**

⁵ If the tBAR is not on your machine, go to <http://www.fx-software.co.uk/tbar.htm> and scroll down to **downloads**. Follow the setup wizard accepting all the defaults. Click **Launch the Programme file** when prompted. This will give you a coloured box to overlay text. To remove it, right click and **Minimise** or **Exit**. To launch again, double click the icon on your desktop

Is the menu bar the same on the results screen as on the database home page?

15. Do the menu bars have the same options in all screens?

Are the menu options consistent between the results screen and the database home page?

For resources without full text content, stop here!

Answer the following questions about HTML full text

16. Can you navigate using just the keyboard?

Use the tab and arrow keys to move around the screen - does it work in a logical order? Can you navigate to and type into the search box using just the keyboard?

17. Do the default colours offer sufficient contrast?

Is the screen easy to read?

18. Are links visible and identifiable as such?

Can you determine what is and isn't a link without clicking?

19. Are link colours clear?

Can you easily read the text of the links, even once they have been clicked?

20. Does the t-Bar colour overlay work?

Double-click the t-Bar icon on your desktop to launch the programme. It will give you a coloured overlay through which you should be able to read the screen. Right click and choose Exit or Minimise when you have finished using the programme.

21. Does the browser zoom work?

Use CTRL + to zoom in and CTRL - to zoom out. Does the text remain clear and readable?

22. Do images have descriptions attached?

These can either be captions or alt-text (hover your mouse over the image to see alt-text)

23. Are the descriptions of images useful?

If you could not see the image, would the description be sufficient to describe it?

24. Are the images described in the text?

Would you be able to understand the content without the images?

25. Is any multi-media captioned?

If there are videos, audio etc, is there a text caption saying what it is?

26. Are there transcriptions of multi-media content?

If there are videos, audio etc, is there a text description of the content?

27. Are there any accessibility aids? For instance, built-in ways of changing colour, read out loud, zooming, changing contrast, changing font etc

Look around the page – are any of these things mentioned?

Answer the following questions about online PDF full text

28. Does the browser zoom work?

Use CTRL + to zoom in and CTRL - to zoom out. Does the text remain clear and readable?

29. Do images have descriptions attached?

These can either be captions or alt-text (hover your mouse over the image to see alt-text)

30. Does the Tbar overlay work?

Double-click the t-Bar icon on your desktop to launch the programme. It will give you a coloured overlay through which you should be able to read the screen. Right click and choose Exit or Minimise when you have finished using the programme

31. Are there any accessibility aids? For instance, built-in ways of changing colour, read out loud, zooming, changing contrast, changing font etc

Look around the page – are any of these things mentioned?

Answer the following questions about downloaded PDF full text

32. Is the text copyable?

- Highlight some text and copy it (either press CTRL+C or right click and choose copy) then paste it into a word document or text file (use CTRL+V or right click and paste)*
- 33. Does the zoom work?**
Try the zoom function in the top menu bar. If this is not visible, use menu item View-Zoom. If there is no menu, try hovering to see if one appears. If there no menu appears, try CTRL +
- 34. Does the colour change work?**
Use menu item Edit-Preferences-Accessibility-Replace document colours. If there is no menu, try hovering to see if one appears.
- 35. Does the read out loud function work?**
Use menu item View-Read out loud-Activate. If there is no menu, try hovering to see if one appears.
- 36. Does reflow work?**
Use menu item View-Zoom-Reflow then zoom in. The text should reconfigure into a single column. This rarely works!
- 37. Does the Tbar overlay work?**
Double-click the t-Bar icon on your desktop to launch the programme. It will give you a coloured overlay through which you should be able to read the screen. Right click and choose Exit or Minimise when you have finished using the programme

References

- ASCLA (2014) *Accessibility to library databases and other online library resources for people with disabilities*
[http://ascla.ala.org/toolkit/index.php?title=Accessibility to Library Databases and Other Online Library Resources for People with Disabilities](http://ascla.ala.org/toolkit/index.php?title=Accessibility%20to%20Library%20Databases%20and%20Other%20Online%20Library%20Resources%20for%20People%20with%20Disabilities). Accessed 29th March 2016.
- George, S., Clement, E. and Hudson G. (2014) Auditing the accessibility of electronic resources. *SCONUL Focus* 62:15-23
- George, S., Clement, E., Hudson, G. and Atif, M. (2014). Auditing the accessibility of electronic resources. In: Hall, I., Thornton, S. and Town, S. (editors.). *Proceedings of the 10th Northumbria International Conference on Performance Measurement in Libraries and Information Services*. University of York, July 22- 25th, 2013. 95-104.
- Hilderley , S. (2013) *Accessible Publishing : Best Practice Guidelines for Publishers*. Accessible books consortium.
http://www.accessiblebooksconsortium.org/inclusive_publishing/en/accessible_best_practice_guidelines_for_publishers.html. Accessed 29th March 2016.
- Kramer, S. (2007) Digital Rights Management: Pitfalls and possibilities for people with disabilities. *Journal of electronic publishing* 10(1)
DOI: <http://dx.doi.org/10.3998/3336451.0010.106>
- Mann, K. (2013) *Disabled students' perceptions of library services*. Unpublished Graduate Trainee Project, University of Bradford Library

Northern Collaboration (2016) *Enabling Group - Northern Collaboration*
<http://www.northerncollaboration.org.uk/content/enabling-group> . Accessed 29th March 2016.

Royal National Institute of Blind People (2016) *RNIB UK education collection*.
<https://www.load2learn.org/cms/> Accessed 29th March 2016.

Smith, G. (2011) Supporting distance learning students with disabilities. *SCONUL Focus* 53:39-43

Turró, M. R. (2008). Are PDF documents accessible? *Information Technology and Libraries*, 27(3), 25-43

University of Sheffield (2013) *The Open Rose Group*.
<http://www.shef.ac.uk/library/services/openrose> Accessed 29th March 2016.