

The usefulness of URCLE to TLS: an evaluation

1. Since the academic year beginning in autumn 2012, the primary delivery mechanism for TLS materials has been URCLE (the URC Learning Environment). As part of the TLS Review, I agreed to carry out an evaluation of the effectiveness of URCLE for this purpose.
 - 1.1 On this occasion, I have followed the approach known in evaluation circles as ‘expert evaluation’ – an examination of a product or service (here a website) by someone with expertise in related areas, as opposed to a survey or experimental observation of users of the site. It might therefore be helpful background to know that I have worked as a lecturer at the Open University, designing distance learning materials including extensive use of online materials (including sites designed through Moodle, on which URCLE also runs), since 2000; and that my doctorate was on the evaluation of computer-based collaboration technologies. Moreover, I was a TLS student from 2011-2014, and experienced URCLE as a user for two years. I also have had conversations about URCLE with a number of TLS staff and in particular attended a review meeting in July 2014. None of this means that my evaluation below is necessarily correct, and it may be lacking in important areas; but it gives me some basis for making such an evaluation.
 - 1.2 The prominent usability expert Jakob Nielsen makes a helpful distinction¹ between **utility** (does the site do what users need?) and **usability** (how easy and pleasant are its features to use?). He defines **usefulness** as the combination of utility and usability. My evaluation will cover both these aspects, of utility and usability, in seeking to determine whether URCLE is useful to TLS.
 - 1.3 A note on the key stakeholder groups in this particular evaluation. All systems that might be evaluated have multiple stakeholders – those who can affect or are affected by the system². In the case of the use of URCLE within TLS, these might include (but are not limited to): students, tutors, support group members, TLS leaders and administrators, technical staff at Church House, contractors to manage URCLE, and the education department at Church House. (TLS as a whole has many more stakeholders than these.) I will take the key stakeholders for this evaluation to be the end-users of URCLE: principally students, but also tutors. Other stakeholders will see its usefulness rather differently.

2. Utility

- 2.1 Let us look first at the utility of the site – does it do what students and tutors need? This is a surprisingly hard question to answer, because it is not immediately clear what students and tutors need from URCLE. The clearest definition of the purpose of URCLE that I can find comes from the leaflet *Accessing URCLE*³, which is made available to all new TLS students:

URCLE is the United Reformed Church Learning Environment. This is an on-line learning tool that is being developed by the United Reformed Church for use by all its departments, including Training for Learning and Serving. The site is in continual development, so that, in time, it will become an interactive web based learning environment.

¹ Nielsen, J. (2012), ‘Usability 101: Introduction to Usability’, <http://www.nngroup.com/articles/usability-101-introduction-to-usability/> (accessed 29 Nov 2014)

² Freeman, R.E. (1984) *Strategic Management: A Stakeholder Approach*, Boston, Pitman.

³ Quotation from version of 1st September 2014. Available on URCLE Administrative Documents Page, <http://moodle.unc.org.uk/course/view.php?id=117>.

All students and Tutors will need access to this site to download TLS material, Administration documents, Course Units and all required forms. It may also be used by your Course Manager to provide information about Residential Weekends, and there will be the provision for student forums and chat rooms.

- 2.2 This definition is fairly clear that the main current purpose of URACLE for TLS is to download course materials, that is to act as a document store. However, it envisages a possible development of URACLE into an 'interactive web based learning environment'.
- 2.3 So does the site provide adequate functionality to enable students and tutors to extract the documents they need? The basic minimum requirement would be a list of all the documents required by the student or tutor for the current study year, with links to download each one for use on an individual computer.
- 2.4 According to this basic minimum, the site is adequate in its utility. Students and tutors can access all the files that they need, and they are available when required. The administrative documents (previously the Course Handbook) have been specifically redesigned for 2014/15 so that they work better with URACLE rather than assuming that they will appear in a single printed document for all students. However there are a number of problematic aspects of the current site in information design terms:
- 2.4.1 Because URACLE is designed for many purposes within the URC beyond TLS, the interface does not immediately lead the student to their particular current module – a number of layers have to be passed through to get to that point. Moreover, students have (so far as I can see) access to a number of different modules at once, which could cause confusion. It would be far better to limit the view of students so that their entry point was the main page of interest.
 - 2.4.2 There are a large number of other facilities visible to users, particular in sidebars, which promise functionality (including forums and marks awarded) which are either unused or little used.
 - 2.4.3 Different document types are treated rather differently when opened. PDF files are generally opened immediately (as most browsers have built-in PDF readers), but in a separate window. Word and Powerpoint files are generally either downloaded, sometimes in a separate window but sometimes not. There are good technical reasons why this happens, but it is confusing and a little unsettling.
 - 2.4.4 It is unclear from the site design whether the expectation is that students download the files and read them outside of the site environment (whether on the same machine, transferred to a tablet computer, or printed out), or whether the expectation is that they be read while the user is connected to the site.
 - 2.4.5 It is not easy to discover whether new files have been added to relevant pages since the user last accessed the site, or indeed whether existing files have been updated with new versions. Treated purely as a document store, this last point is a notable flaw.

2.5 The source for a number of these issues appears to be the goal mentioned above that URCLE should eventually evolve into a fuller interactive learning environment. Many higher education institutions make considerable use of such environments; at the Open University we have large numbers of students interacting with our virtual learning environment on a daily basis. Such environments enable: the use of websites as the primary study mechanism, with interactive quizzes as well as the usual multimedia elements of websites; rich peer interaction through forums and other semi-synchronous communications tools; the drawing together of many different study elements into a clean and consistent environment. Moodle is an excellent platform for such a learning environment – it is increasingly widely-used so there is a considerable user base, both in terms of technical support and for educators designing learning objects within it. It is also open source, making it malleable and community-supported as well as free to install and use.

2.6 However, the current use of URCLE is not as an interactive learning environment – it is principally as a document store. The only other Moodle element currently used are student forums, and they have received very little use to date. In passing it is worth observing that the TLS student Facebook group (a useful comparator as Facebook is often an overflow for ad-hoc student communications in a distance learning context) gets very little traffic. It may simply be that there is little current demand for this kind of communication among TLS students, given the many opportunities at local groups and residential weekends.

2.7 Treated in these terms, Moodle almost provides too much functionality, and makes the basic document access functions harder than it might be. It is clearly more than adequate as a platform, but it could be that there are ways to make it simpler to use.

3. Usability

3.1 Although the above analysis has strayed into issues of usability, I will now focus on that area more explicitly. There are a set of questions that we might consider in this regard (these are related to the five aspects of usability identified by Jakob Nielsen in the page listed above):

- 3.1.1 Is the site easy to navigate?
- 3.1.2 Is the site easily learnt by new users, but also still useful for more experienced users?
- 3.1.3 Is the visual design easy on the eye, pleasing, and helpful?
- 3.1.4 Is the site somewhere where students want to stay, or to pop in quickly & then get out?
- 3.1.5 Does the site work well on multiple browsers, devices, and for those with accessibility needs (such as the partially sighted)?

Let us consider each aspect in turn.

3.2 Ease of navigation

- 3.2.1 Once the user has entered the main page for a course, navigation is perfectly good, and items are easy to access. A few issues are problematic, however.
- 3.2.2 I have commented above on the number of layers required to access a given module, but this is worth expanding upon. For example, to access the main page of the Foundation course requires the user to: a) click on URCLE from the URC homepage; b) log in to the site; c) click on 'Training for Learning and Serving' amidst several other options which may or may

not make sense to them; d) find the Foundation course (which along with all the other TLS Classic courses begins with the phrase “TLS Classic Courses”, making it harder to recognise quickly). Some of these steps can be reduced by appropriate bookmarks, but at the least it would be much better if a login took students straight to their current course, given that few students study more than one TLS course at once.

- 3.2.3 I briefly mentioned the sidebars above, and it is worth expanding on these. The left hand side of the page contains sections headed ‘Navigation’, ‘Administration’ and ‘Search Forums’. In their current form, these lead to a considerable amount of visual clutter. The idea of a navigation section is a useful one, as a way to move around the site, but the options given (beyond the sections of the current page) are not particularly clear. The administration section gives the offer of grades (which as far as I know is not currently implemented) plus a useful sub-section headed ‘my profile settings’ although this is only accessible by clicking for a drop-down menu. The search section is again a useful idea, although it is not immediately clear which forums would be searched (as there is no obvious list of forums to which the student has access).
- 3.2.4 The presence of the ‘search forums’ box also highlights the absence of an option to search all items within the current course, which might be hard (or even impossible) to implement given the multiple file types, but would be genuinely useful given how many possible files are available.

3.3 Learnability for new users vs. usefulness for experienced users

- 3.3.1 This is one of the classic tradeoffs in user interface design, and has been studied across a range of systems (to take an example from mobile phones, Apple phones are often said to be easy to learn but less useful for experienced users, while Android phones are harder to learn for new users but more flexible for experienced users – though this is a field that changes rapidly so is less true today than even a year ago).
- 3.3.2 So how does URCLÉ rate in this regard? I think the ‘learning curve’ is quite steep on the site, partly down to the reasons listed above. It is striking that the introductory document to accessing URCLÉ (listed on the first page of this report) is eight pages long, and in my view it requires all those pages. Anecdotally from talking with other TLS students when I was studying, it is clear that a number of students had some difficulty getting on to the site and finding their way around.
- 3.3.3 This is less of a problem for experienced users. The comparatively limited current functionality of the site (and the fact that it does not change much) means that once users are familiar with it, they can readily carry out tasks. There are few of the kind of shortcuts that experienced users might find useful on some systems, but I find it hard to imagine what such shortcuts might entail, so this seems reasonable.

3.4 Visual design

- 3.4.1 Rating how pleasing a site looks is the most subjective part of any usability assessment, and clearly will differ in one user’s assessment to another’s. For myself, I find the visual design of URCLÉ pleasing enough, in an inoffensive way. Fonts and overall layout have a reasonably contemporary feel, while also being reasonable classic – not following the latest design trends seen on sites such as The Guardian and many Google services. The background colour likewise feels inoffensive rather than spectacular.

3.4.2 It is worth saying that visual design trends in websites do change fast, though, and what feels classic one year can feel somewhat old-fashioned the next year. This is an area where St Paul's suggestion not to conform to the pattern of the world (Romans 12:2) might be considered sound advice – but nonetheless the church is not served by looking too old-fashioned in its outward appearance, and keeping an eye on this topic would be sensible.

3.5 Long vs short stay

3.5.1 Is this site somewhere students want to linger, or to enter and leave quickly? My sense is that in its current form, it is a site where students enter quickly, find the documents they need, and then use them elsewhere. In the current use of the site principally as a document store, my view is that this is fine.

3.5.2 If the site were to be expanded into a full virtual learning environment, which as discussed above is perfectly possible within Moodle, clearly there would be an expectation that students would stay for a longer time. If this were desired, the more problematic aspects identified in the Utility section above, and in 'ease of navigation', would probably need to be addressed.

3.6 Accessibility

3.6.1 In many universities (including my own), access to learning environments by students with disabilities is a big issue, for both legal and ethical reasons. Disability among distance learning students is often thought of primarily in terms of issues for people with visual impairments. It is worth saying that these are often not the largest group of students with disabilities – those with mental health issues (including depression) and dyslexia can frequently outnumber people with visual impairments. (This is from the Open University experience, and the student population of TLS will be rather different.)

3.6.2 This, whose primary access to a website (or other online document) would be through a screen reader. I don't have experience in using screen readers, so I can't test this myself. However, the site layout is sufficiently simple and text-based that navigation looks to me unproblematic through screen readers (it is important that all links be normal text rather than within images, for example).

3.6.3 Some accessibility experts are critical of the use of PDFs, as they often contain layout information within the document, and prefer the use of e-book formats instead. That said, the TLS documents supplied through URCLÉ are mostly fairly small ones that are easy to view. As one small piece of evidence for this, I experimented with converting a PDF document (of one of the sets of course units) into a Kindle book. Amazon's conversion tool produced a reasonably good result, close to the original with few errors, and largely readable through a Kindle – this is a good sign of a well-designed PDF.

3.6.4 Being able to be viewed on multiple devices is an important aspect of modern websites – it is no longer sufficient for them solely to work on a PC screen, but as much as possible they should work on mobile devices. As well as the Kindle experience, the PDF files work fine on a tablet (I did most of my TLS studying using an Android tablet). URCLÉ itself in its current version (this may be since the site moved to a contractor) works rather well on a mobile

phone (again Android) – once on a particular course page, the list of files appears first, followed by the boxes on navigation etc which appear as sidebars on a PC. On my tablet, the experience works less well, as the site appears largely to be as the desktop version, with a few modifications, but on a smaller screen where the sidebars take up proportionally more of the screen. However, the site is completely usable on the tablet, which is not always the case on complex websites.

- 3.6.5 A minimal amount of accessibility is being able to work with browsers properly in changing type size through zooming (given the ageing profile of the URC, this is an important concern) and possibly issues such as reversing backgrounds to provide high contrast. These are tools built into most browsers, and at a quick check the site behaves well when zooming and using high contrast in Google Chrome on Windows.
- 3.6.6 Some of these issues may have been assessed in greater depth already – if not it would be useful if they were assessed as part of an expansion to a full virtual learning environment, but not in the current form of the site.

4. Conclusions and recommendations

- 4.1 I have discussed at some length the question of the utility and usability of URCL. My overall conclusion is that the site is fit for its current purpose, and in many ways works well, but that aspects of the design are somewhat over-complex given that it is effectively acting as a document store.
- 4.2 I recommend that TLS staff need to decide between two futures for URCL - whether the site should:
- a) continue to act as a document store, in which case some of the functionality made possible by Moodle should be hidden; or
 - b) expand into a fuller virtual learning environment, bringing much more of the study online and using the facilities of Moodle more fully, though this would require a considerable investment of time by staff and/or volunteers and probably also money.
- 4.3 Of course, if TLS was to change in its fundamental nature in the future, greater weight would be given to one or the other of these options. There is a middle path where some of the facilities of Moodle (such as forums) are used to a greater degree, without a full online study experience. This could be quite attractive, but it would require some careful design and should best be done with a careful examination of each aspect of the site design.

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