Library Assistant - Improving the Student Experience of Oxford Libraries Through a Mobile Library Induction

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LIBRARY ASSISTANT - IMPROVING THE STUDENT EXPERIENCE OF OXFORD LIBRARIES THROUGH A MOBILE LIBRARY INDUCTION

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Abstract

A student’s first week at University is an overwhelming experience with important information being delivered by many different parts of the institution. High student numbers and severe time constraints on contact time between librarians and students means that libraries struggle to effectively communicate advice about services and resources. This issue is further compounded at the University of Oxford by the complexity of the local library system; the second largest in the UK. Research undertaken with Oxford students to ascertain their views on library inductions revealed that, although inductions were valued, they could be poorly timed and leave students overloaded with information they subsequently failed to retain. It was decided that a mobile-friendly website which provided key information about libraries in Oxford could address these difficulties by enabling students to get timely access to concise information using smartphones and tablet devices. The aim was to encourage students to use the library and ensure that they get the maximum benefit from library resources across the institution during their studies. Funding from JISC allowed the development and rollout of the 'Library Assistant for Oxford Freshers' website. This paper discusses the motivations for creating Library Assistant, how the website was developed and what the response has been from new library users. This paper shows that Library Assistant provides an example of how libraries can exploit mobile technology to enhance the patron experience and use of library services.

Keywords: Library induction, mobile devices, mobile websites

Background

New undergraduates frequently find the transition from relatively small school libraries to university libraries problematic (Jones and Allen, 2012). At Oxford, the problem is particularly acute, as undergraduates are served by a diverse range of libraries including World famous but complex research libraries as well as Faculty, Departmental and College libraries. Undergraduates are likely to find that the materials they need are spread across a number of these libraries, and may find that some materials are kept in closed stacks.

In addition, the library landscape in Oxford is administratively complicated with the Bodleian Libraries bringing together Oxford’s research and Faculty Libraries whilst each College Library is independently governed by the College governing body. As a result there is little uniformity in Library services across campus, which can be confusing for students.

Oxford supports new students by running a wide range of physical library inductions during Freshers’ week. Typically undergraduates attend two to four of these sessions covering the main libraries for their discipline.

The efficacy of Library induction

Whether library induction is effective in helping students to transition from school to university library has been called into question (Jones and Allen, 2012). However, Oxford Libraries have continued
to value induction, in particular, as a means of making complex libraries less intimidating to freshers.

Oxford decided to take an evidence based approach to the efficacy of library induction and during the summer of 2012, ran student focus groups to ascertain students' views. The findings were broadly positive, with the majority of students valuing tours of the physical spaces, catalogue demonstrations and the opportunity to find out how to get help.

However, the focus groups did reveal problems. Timing of induction was particularly difficult, with students who were yet to start their academic work, reporting that they did not have enough context to understand what they were being shown. Meanwhile students who had later inductions complained that they’d had to complete assignments before their induction. Timing is a particularly difficult issue to resolve in the context of physical library inductions, which of necessity have to be spread over a number of days in order to accommodate approximately 3,200 students.

Students also experienced information overload and in particular found it difficult to remember detailed information (for example relating to passwords, printing and Wi-Fi). In addition, some students were unclear about which libraries they could use and which covered their subject area.

Attendance at induction was also patchy, with some students complaining that they had attended several inductions with considerable repetition, whereas others missed out on induction altogether due to timetable changes.

Following on from the student focus groups, staff focus groups were held to canvas staff attitudes to induction. The findings were in many ways similar to those of the student focus groups. In particular, staff valued inductions as an opportunity to make students feel comfortable in the library by introducing physical spaces and library staff. However, staff, were conscious of the problems of information overload, timetable clashes and repetition for students attending multiple sessions.

In addition, staff were very much aware that in order to improve the student induction experience it would be necessary for librarians from across Oxford’s diverse organisations to work together and adopt a more “joined up” approach, particularly in order to avoid duplication.

**Vision**

A vision for a new resource to tackle the problems identified in the previous section was created and defined in terms of objective, content and delivery.

**Objective**

It was decided that a resource capable of delivering concise information about key library services to new students would be beneficial. This resource would both complement and support physical inductions by firstly, acting as a reminder to students about important material they may have missed or forgotten from their inductions. Secondly, help students navigate Oxford’s complex library system by indicating clearly which libraries they could use and providing location, contact and opening hours information. Thirdly, enable staff at physical inductions to focus on communicating material of particular relevance to their collections while being confident that information about basic, universal library services was already well covered by the new resource. This would also help avoid excessive repetition or omissions from physical inductions.

**Content**
The content of the resource would be defined by the specific problems students had encountered with inductions and using the library. It was also informed by discussions with library staff on what they felt were problematic areas for students and the induction process in general.

**Delivery**

Student comments on their use of library websites have demonstrated that if information is not obvious or is hidden they are unlikely to undertake the effort to find it. It is known from recent surveys that the use of mobile devices is rising among students. For example an Office of National Statistics survey showed that over 80% of 16-24 year olds in the UK use mobile phones to access the internet (Office of National Statistics, 2013). It was therefore essential that they would able to use the new resource through these devices.

The resource would be easily and quickly accessible through as many devices and in as many situations as possible. For example, the resource would work through a library PC and through a smartphone when walking around Oxford. By being available at any time the resource would directly address problems students had encountered with the timing of physical inductions.

By combining the criteria outlined in the above sections on objective, content and delivery it was possible to develop the concept of an online library induction suitable for using on both desktop and mobile devices. This online induction would be an easily accessible way for new library users to access key information about library services and resources in a way which would be timely and convenient. The new resource was named ‘Library Assistant for Oxford Freshers’.

**JISC (Joint Information Systems Committee) Funding**

A JISC transformation grant provided £15,000 of funding for a one year period to develop Library Assistant. The funding was well suited to this project because the mobile library induction has the potential to transform current induction practices across the institution. College, central and Faculty libraries would all be influenced by the availability of the induction and this project furnished an excellent opportunity to work with all libraries across the University. The project also aimed to enhance the student experience of libraries in Oxford and ensure that they got the best possible support in using library services and resources critical to their academic success.

**Design**

**App or Website?**

As Library Assistant needed to be easily accessible through mobile devices, an early decision had to be made as to whether the service would operate as a native mobile app i.e. a piece of software downloaded onto handsets, or as a responsive website capable of adjusting its appearance to suit a wide variety of screen sizes.

A native app has the advantage of being able to run faster on a device, be used off-line when no web connection is available and exploit certain device operating system features (Power, 2011). The main disadvantage of native apps is that they require porting to several different operating systems to facilitate access on a broad range of mobile devices (e.g. Google Android, Apple iOS). This creates significant additional development work and raises problems for sustainability after funding for the project is exhausted.

A responsive website has the advantage that it is device agnostic (Power 2011). This means that it can be viewed and interacted with on devices running any number of operating systems or having any screen size, providing that a web-browser type application is available. The major disadvantage
of the responsive website is that a live internet connection is permanently required and the website is likely to operate more slowly than a native app.

Given that a responsive website posed fewer developmental challenges compared to a native app and that it did not generate as many concerns regarding sustainability of Library Assistant, it was decided that developing the mobile induction as a website would be the best approach.

**Website development**

Before beginning development of Library Assistant it was necessary to decide on the platform upon which the website would be built. Initially the 'Mobile Oxford' platform was examined. Mobile Oxford is a web service supplied by Oxford University's IT Services (http://m.ox.ac.uk). It is a mobile website providing live information about local transport services, access to the student WebLearn VLE (Virtual Learning Environment) system and mapping information for University buildings. Mobile Oxford is an established mobile web service within the organisation that already has a library module which allows individuals to search the catalogue. It was hoped that Library Assistant could extend the library functionality already present while also allowing the new project to benefit from the established Mobile Oxford brand and experience of the site's developers. However, it was discovered that it would be difficult for library staff to update information within the Mobile Oxford platform. This raised concerns about the practicalities of using the platform.

An alternative to developing the site on the Mobile Oxford platform was found in the library's existing MySource Matrix Content Management System (CMS). This CMS is used to manage most of the Bodleian Libraries' websites. Work on Library Assistant coincided fortuitously with a redevelopment of the Library's websites which, amongst other enhancements, aimed to improve their appearance and functionality on mobile devices. It was therefore possible to exploit the expertise of our web developers in creating responsive websites.

Opting to use the CMS had other benefits. Firstly, many library staff are already trained in how to use the CMS to manage web pages for their own libraries. Secondly, components created as parts of Library Assistant could be copied, reused or adapted for use on other library websites within the CMS if required. Given these advantages, it was decided that development of Library Assistant would take place within the CMS.

**Structure**

The Library Assistant website was designed to be simple to use with the content determined through discussions with staff and students. Focus groups with students carried out at the beginning of the project had shown that if information is buried in complex websites it will not be found. A simple menu driven interface with a maximum of two levels of menus was proposed. The top level of the menus would describe broad areas of library activities such as 'Finding and borrowing items' while submenus would offer more specific topics couched in terms of practical questions. For example, under the 'Finding and borrowing items' main menu item there would be the submenu options of 'Can I borrow books from libraries?' and 'How do I renew my books?'. This maintained simple navigation while avoiding jargon. For instance, rather than 'How do I search the SOLO catalogue?' there is 'How do I find books and journals?'.

Under each submenu item would be a page of concisely written text and images describing how to accomplish a particular task. Alternatively the submenu item would lead to an interactive page requiring students to select menu options in order to be given appropriate information. An example of this functionality would be the ability for students to select their college and program of study in order to be returned a personalised list of the libraries in Oxford with collections most pertinent to their course.

An outline of the structure of Library Assistant was prepared in which the main menu and corresponding submenu items were listed. The decisions on which topics to include were based on
focus groups held with students in which they were asked to describe what they had found difficult or confusing about using Oxford Libraries and what three key pieces of information about the Libraries they would tell new students in order to help them. This draft structure was presented to groups of librarians invited from across the institution. The librarians were asked to comment on the draft and suggest refinements to wording and the selection of topics. To facilitate this task, individual menu items were written on to cards and packs of these cards distributed to small teams at the focus groups. Each team was asked to sort the cards into what they felt was the most appropriate order and also indicate any modifications to wording or additional items by writing on the cards. The sorted packs of cards were afterwards collected and the order suggested by each team recorded. Results from all teams were combined to produce a consensus ordering for the menus. This resulted in several changes from the draft in terms of both wording and ordering. This final version of the structure was then used as the framework for arranging the Library Assistant website and authoring appropriate content.

**Interface**

An interface to the Library Assistant website was required which fitted the menu driven structure. The interface had to be simple to use and work well on devices with small screens. In consultation with the web developers, a mock up for the design of Library Assistant was created. This mock up incorporated a main menu consisting of a set of rectangular buttons each displaying a topic and submenus made of a list of links to content pages. At the top of the page was a header section in which to display the Library Assistant logo and a series of function buttons allowing the user to jump back to the main menu, move back a step within the website, access help and search the whole of the site for keywords. Each of these functions was represented by an icon.

In order to test the interface we asked students to comment on a series of printed mock up screens. Students were asked to identify the function of different icons and how they would go about navigating the menu structure to accomplish a particular task. Students were also asked to provide general feedback on the presentation and layout of the site. From this feedback some refinements were made to the interface such as changing the order of the icons. A similar round of usability testing was undertaken after the web developers had produced a working version of the website.

**Content**

Once the structure and topics to be covered in the mobile induction had been determined it was necessary to produce text which would explain how to accomplish a particular task. A group of volunteers from amongst the University’s librarians was assembled to write sections of the text. To maintain consistency, a style guide was prepared which covered issues such as appropriate terminology to use. Texts submitted from these librarians were reviewed, edited and then transferred to the CMS.

**Marketing**

Ensuring that students were aware of “Library Assistant” from the start of their course was essential to the success of the project, and the availability of monies from the JISC enabled the Libraries to commission a graphic designer to design a “Library Assistant” logo, posters, wallet cards in the shape of mobile phones and phone holders to support the advertising campaign.

Colleges were asked to help with marketing by including wallet cards for “Library Assistant” in physical and electronic information packs sent out to Freshers. In addition, colleges and libraries were asked to promote Library Assistant on their web sites, social media and at physical inductions and welcome events across the University. The Libraries also ran a stand at Freshers Fair promoting “Library Assistant” with freebies including branded phone holders and a prize draw to win a Nexus 7 tablet.
Transforming physical inductions

Transforming the Libraries’ physical inductions was a key part of the project and therefore getting “buy in” from librarians was crucial. The staff focus groups were very positive in inculcating a sense of commitment to the project. Over the following months, awareness remained high due to blog posts and newsletter articles. Finally towards the end of the project, three induction “Exchange of Experience” events were held. These were not only an opportunity to showcase “Library Assistant” but also included group work where librarians could make a start on planning changes to their physical inductions. The events were well received, and it was noted that the project had been successful in bringing librarians from across organisations together to improve the student experience.

Impact

Three approaches were taken to collecting data which would make it possible to assess the impact of Library Assistant -

- Google analytics - data about site visits, most visited areas of Library Assistant and the devices used to access the site.
- Focus groups with students - information about student responses to Library Assistant including how useful they felt the site was and if it helped address their needs during induction.
- Staff survey - an online survey of library staff around the University used to assess how librarians had advertised and used Library Assistant and collect their views on the project.

Analytics Data

Google Analytics was used to collect data about visits to the Library Assistant site. Data for the usage of Library Assistant during the autumn (Michaelmas) term was extracted. This showed 1,692 visits to Library Assistant during the period (23rd September - 6th December) had been recorded leading to 4,408 page views within the site. Views of the website were not evenly distributed over the term but peaked around the 23rd of September and the 9th of October. These dates coincide with inductions for new students in the Department of Education on the 23rd of September and Freshers week inductions which took place between Monday 7th to Friday 11th of October. Visits to Library Assistant appear to trail off after the first couple of weeks of term. This pattern was not unexpected; Library Assistant is designed primarily as a tool for new students. It was expected that the need for the website would diminish as students learnt how to use library services and no longer required as much supporting information. Additionally, the high usage of Library Assistant during and immediately after Freshers’ Week may indicate that students were being made aware of the website’s existence during their physical library inductions and via the advertising campaign promoting the resource.

The analytics data also showed that the most popular pages were those relating to information about which libraries students could use. Other frequently viewed pages included those dealing with finding and borrowing material from libraries.

It was also possible to use the analytics data to identify the type of device used to access Library Assistant. Interestingly, this revealed that 61% of visits were from desktop or laptop computers with the remaining 39% originating from mobile phones and tablets.

Focus Groups

Focus groups were conducted with groups of first year students who reported that they either had or had not used Library Assistant.

Students who did not use Library Assistant gave several reasons -
- Unaware that Library Assistant existed
- Found help elsewhere (for example from library staff)
- Did not understand what Library Assistant was for or how to use it

A number of students who had not used Library Assistant felt that it would have been helpful for them had they been aware of it. Of particular value would have been the sections on which libraries to use and how to access Wi-Fi within libraries. Students suggested that better advertising of Library Assistant during inductions was necessary. The results of the focus group therefore underlined the importance of even more vigorous promotion of Library Assistant to students.

Students who had used Library Assistant were asked about what types of information they had been trying to find and if the resource had answered their questions. Students mentioned the following areas where they had been helped by Library Assistant -
- Using the photocopying system
- Logging into library computers
- Help with reading lists

It is notable that these problems represent topics that information on Library Assistant had been specifically designed to address. The students reported that, although the website was easy to use and navigate, it lacked visual appeal and this might discourage use.

The students interviewed had accessed Library Assistant by different means - either desktop or mobile phone. One student commented that they were more likely to use Library Assistant through a desktop computer.

The students who had used Library Assistant also emphasized the importance of promoting Library Assistant to new students in order to get them to use the website.

**Staff Survey**

Of the 30 libraries who responded to the online survey, 90% of respondents reported that they had actively promoted Library Assistant. Reasons given for not promoting Library Assistant included librarians stating that they wished to spend time focusing on their own library or that they were unaware of Library Assistant.

The most popular means of promotion reported were by using hand-outs and including details of Library Assistant in physical inductions. Some libraries made use of websites and social media to promote Library Assistant. Although librarians reported that they had received little direct feedback from students, they did comment themselves on how and why they felt the mobile induction would be beneficial to students. Seven respondents noted that the induction was beneficial because it provided a place to find basic information and help whenever needed. Other comments noted the usefulness of Library Assistant as a supplement and support for physical inductions.

**Conclusion**

The various measures of impact described in the previous section help to show that the Library Assistant project has been successful. The Google Analytics stats show that the site is being accessed regularly and that it was particularly well used at the start of the autumn term.

Comments from students and staff during focus groups and through questionnaires have also helped demonstrate that the content of Library Assistant is useful and it is actually being used to answer the types of questions for which it was intended. Positive comments about the ease of use and simplicity of the site also suggest that our design process was effective in making an accessible interface. The major project objectives of improving the student experience of Oxford libraries and the quality of support for inductions seems to have been filled in these cases.
It was also possible to obtain evidence of changes in induction practices via the staff survey. This helps to demonstrate the fulfilment of the transformational aspects of the project. For example, when asked about changes made to physical inductions as a direct consequence of Library Assistant, librarians indicated the following -

- Incorporated information and promotion of Library Assistant into inductions
- Spent less time on certain parts of induction
- Focused more on issues involved in using a particular college library
- Altered induction to avoid duplicating material that was available in Library Assistant
- Freed up more time to allow students to carry out some practical learning tasks in the library such as practicing finding books

A number of key lessons have been learnt during this project which will be useful in developing other Library services. In particular, engaging students through focus groups enabled the libraries to take an evidenced based approach to evaluating existing library inductions and designing a new service.

In addition, devoting time and resources to engaging library staff in the project was successful in ensuring that Librarians committed to transforming physical library inductions and to promoting Library Assistant to their students.

Finally, the project has demonstrated that students benefit when libraries work together to address student need irrespective of differing reporting lines and organisational structures. By working together across the institution, Oxford Libraries were able to deliver a “one stop shop” induction which covered all of Oxford’s Libraries in a clear and concise manner, without the need for students to grasp complex governance structures.

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