Leeds Met Library Facebook application

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Introduction

At the Leeds Met staff development festival in 2008 a library graduate trainee, Anna Hepworth, took part in a 'Dragons' Den' event which saw staff propose new, innovative ideas to a panel of senior managers. Anna's suggestion was to develop a Facebook application (or 'app') for the library and it was one of the competition winners.

Anna's initial proposal was to create a Leeds Met library catalogue application, but after discussions with members of the library's 'technologies for learning' team it was decided to take the application a stage further, creating a mash-up using data from the library management system (Sirsi-Dynix Symphony).

The Facebook application would send a library catalogue search box to a Facebook profile, but would also add value by delivering customised user data, including library record details such as number of issues, reservations and overdues. There would also be links to the library website and online self-service functions from the application.
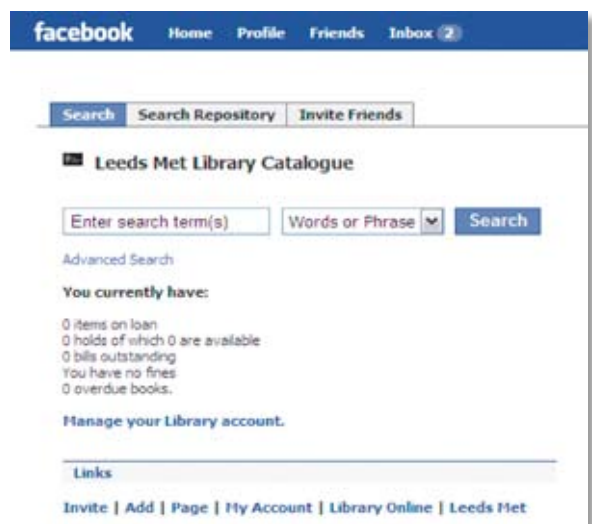
The business case for a library Facebook app

The business case for the application was to aggregate the functionality within the library catalogue to other external services, to increase the awareness and use of the system.

The university has worked hard over the last few years to decrease and standardise the number of usernames and passwords the students have to use. The library management system (LMS) is one of the last systems not to have been standardised. This is due to many issues, including hardware and software limitations with sections of the service (such as telephone renewal). Until these technical issues can be solved it was felt that a workaround that improved the student experience in this area would hopefully result in more people engaging with the system.

How the Facebook app works from a user's perspective

The student or staff member can find the application through the Facebook directory or via a link on the Leeds Met library website. Once they land on the application's 'canvas page' they are asked if they want to add the application and to confirm that they agree to both Facebook's and the university's terms and conditions. From this point they have 'added' the application, so they can see a library catalogue search box and other useful information and links. (See Figure 1.) They are then given the option of a one-off registration which will link their Facebook account with their library account. This requires them to enter their library ID and PIN. Once this registration is complete, they see an overview of their account, including items on loan, fines, bills, holds and holds available. The next time they visit Facebook and go to the application's homepage they can see their account details without having to log in again. We hope that this will increase users' awareness of the system and help users to engage with it more frequently.

Developing the application

The first challenge was to decide what data we wanted to be displayed in the app and how we would extract this from the LMS into a format that could be used by Facebook. After a meeting with colleagues from Leeds Met's information media and technology services (IMTS), it was decided that the best method would be to:

1 export the data from the LMS using the Scheduled Reporting API (application programming interface);
2 view this report as an external table and read the data into a temporary table;
3 merge this into the application table.

This resulted in an Oracle database used by the Facebook application, which is populated during the day from a temporary table and which is in turn populated by a report from the LMS.

The next stage was to use this data and turn it into a Facebook app. We registered a development and a production app with Facebook and were assigned an application key and secret – this is used behind the scenes throughout the app for identification and security between Facebook and Leeds Met. We then used the PHP5 Facebook API and created a series of web pages using PHP (a server-side HTML embedded scripting language) to output Facebook's own mark-up language, FBML, rather than standard HTML.

When a user visits the application's page the app passes the user's Facebook ID to the script. This then runs a query in the database and brings back the results of that user's account, which displays in a format that is in keeping with the Facebook look and feel.

Developing business processes and liaising with other departments

Throughout the project we worked with colleagues in IMTS on the technical aspects of the system. They developed the functionality to take the library report and import it into the database and also advised us on security and best practice.

As the project progressed we engaged with colleagues from the university's web and news and media teams to make sure that the application was in keeping with Leeds Met's online presence.

Once the application was complete we took it to the registrar and secretary's office to get approval from our legal team. This was very important because we wanted to make sure that we were adhering to data-protection laws and that our application met the criteria for data-sharing within the student contract.

The result of all these interactions with colleagues across the institution was that we had in place a documented approval process for further projects in this field, hopefully speeding up the cycle of development, approval and launch for future applications.

Publicity and launch

We decided to give the application a 'soft launch', with the initial release limited to colleagues in the library and IMTS. From this we received a lot of constructive feedback, enabling us to go back to the application and fine-tune the wording and some of the functionality.

With the test phase complete, the app was added to the Facebook directory and promoted via the Leeds Met website and various library communication channels, including our Twitter feed.

There have been a few minor issues such as data-load regularity to iron out, and during this time we decided we would not introduce any further publicity in the way of a large-scale launch. This is something we may plan for the new academic term to further increase awareness and use of the app.

Monitoring, maintenance and limitations

Since the launch we have monitored use of the App – so far it has had over 250 visitors and has 50–60 regular monthly users.

We are dealing with support queries via existing library and university help services. There have been very few queries to date and none have required escalation to the development team. This is in part due to the soft launch that allowed feedback from library colleagues to fine-tune the application.

Lessons learnt and future developments

There have been many learning opportunities and other outcomes from this small project, the most useful being the formulation of procedures needed for the approval of similar applications in the future.

We also needed to consider issues with the use of Facebook on library PCs, which has resulted in a few negative comments from students who feel that students using social networking sites on library PCs are socialising rather than working. We wish to engage with web 2.0 functionality as a library and have had to balance our desire to do this with the needs of all our customers. As a result, we have messages on many PCs in the library which read 'Just Tweeting or Facebooking? If you are, please let someone else use this PC for work.' This campaign was launched after liaison with the Students' Union.

Going forward, we would like to see news feeds from our website and Twitter feed included in the application. We are also currently in the process of evaluating an appropriate solution to provide a pass-through mechanism between the Facebook application and the library catalogue. This will allow users to just click a button in Facebook and be automatically logged into the library catalogue.

Since the app was launched we have reused the bulk of the code and data we developed to provide the same functionality within our university staff and student portal.

We would also like to use the data for both an iGoogle application and an iPhone application, which would sit well with our institutional use of Google apps and also our partnership with Apple. For further information on any of these developments, please contact us on our e-mail addresses above.