

## UB Gent Mobile

**Mobile phones will overtake PCs as the most common Web access devices worldwide by 2013, according to a 2010 forecast by research firm Gartner ( <http://internet2go.net/news/data-and-forecasts/gartner-predicts-mobile-web-beats-pc-2013>). Gartner estimates that the combined installed base of smartphones and browser-equipped enhanced phones will surpass 1.82 billion units by 2013, eclipsing the total of 1.78 billion PCs by then. In some parts of the world, this is already a fact, as Google CEO Eric Schmidt mentioned on the Mobile World Congress. In developing countries such as India, Google searches are more likely to be made from a mobile phone than from a desktop computer.**

Furthermore, the mobile market is more than just phones. Beyond smartphones there is a plethora of mobile devices nowadays; e-readers like Amazon's Kindle, tablets like the iPad, MP3 players, gaming devices, etc. Students in higher education nowadays often own more than one of these mobile devices. When looking at the evolution of mobiles in the last decade, you can't ignore that they are becoming increasingly capable. The rapid pace of innovation in this area continues to increase the potential of these little devices, and they challenge our ideas of how these features should be used.

In 2009 the library decided that it was time to start mobilizing some of its services. First experiments were concentrated on the library catalogue. Based on familiar technologies like HTML and CSS, programmers in the library developed a dumbed-down mobile version of the catalogue.<sup>[h12](#)</sup>Development of this web app took less than two days. While being a simple web app using pure HTML, it seemed very difficult to create a good user experience for all mobile platforms, mainly because of the variety of screen sizes and the wide range of browsers on mobile devices.

The library soon learnt that designing for mobile devices is more than redesigning regular websites so that they can fit on smaller screens. Instead, when designing mobile apps, specific characteristics of mobile devices and the context in which they are used have to be considered. Not only the form factors differ but user interaction is also different with touch screens and motion detection. Clicking hyperlinks and entering text is often cumbersome. Mobile interfaces tend to use menu systems and ease typing by executing real time searches. Mobile users might have other information needs than desktop users. Typically they are on the go and they often need contextualized real time information like phone numbers or directions. Considering this, a mobile catalogue search might not be the first goal of a mobile user. Informational services, like looking up addresses, maps or phone numbers, etc., might be better suited to be mobilized first. The main advantage of this first application was that the university library had a mobile presence and had thus bought some time to study the issue more closely, and think about which services mobile users expect in addition to a catalogue search and what opportunities mobile platforms offered for new library services. To get an idea about UGent student and researcher's behavior, and to know their preferences and activities in regard to mobile devices, the library conducted a survey in 2010. 75% of the respondents (N = 120) owned a Nokia or Samsung and only 6% owned an iPhone or an Android-based phone. Only 13% of the respondents reported regularly using a mobile phone to go on the Web.

Based on these figures it was decided to develop a new service that would benefit a majority of our users. The possibility to receive a text message alert when a requested book was available to be picked up was added to the catalogue.

At the same time the library decided to have a close look at what other libraries were doing. Looking for international examples of libraries with mobile applications, we were delighted by the WorldCat mobile app.<sup>3</sup>Boopsie, the company that developed this application, had a very interesting offer for libraries. In a relatively short time they could build a turnkey service based on a native app (a program installed on the phone) that works on all types of smartphones.<sup>4</sup> Furthermore, it was easy to manage using a Google Docs account. The license cost, based on number of Full Time Equivalents (staff and students), came out much cheaper than the estimated cost for in-house development of a similar application. At the beginning of 2010 the library decided to go for the Boopsie app.

The catalogue search on the Boopsie platform can be implemented in two ways: via Z39.50 or MARC dumps. To keep things simple, the University library chose weekly dumps of the ALEPH (Ex Libris ILS) catalogue and this also allowed to make use of Boopsie's Smart Prefix system. The latter is a technology enabling mobile consumers to search by using short SMS-like messages with search results that are shown instantly.

The app, UB Gent Mobile, developed by Boopsie in collaboration with the university library, is more than a mobilized catalogue. Library users can quickly find addresses of the more than 200 UGent libraries. Using the geolocation software on the smartphone, libraries closest to the user are shown first, and distances and directions are displayed for each library. Users can log in to their library account and request books or renew their loans. They can also contact the library helpdesk via instant messaging (libraryhelp). Furthermore, the app contains links to a list of databases with a mobile interface, the library's RSS feed, the mobile Facebook fan page and recent Twitter messages with the hashtag #UGent.

The Boopsie app is a so-called hybrid app. It allows for a mix of native and mobile web pages. For instance, the main menu screen runs as a native interface; the "Infodesk Live Chat" is implemented as a static web page. Using Google Docs templates, menu screens can be easily added and integration with existing mobile web pages is easily achieved. Changes appear within a few seconds without the need for the user to run any update. A hybrid app combines the benefits of native and web apps. Your application is more visible as it is available in the AppStore, Android Market, etc. It is easier to use the hardware features of the device (GPS) and users don't need to run updates for every minor change to the application.

Three people in the university library were involved in developing the app for a very limited part of their time. Uploading addresses of the Ghent University Libraries in the required Google Docs format has taken some effort, but further development and implementation went very smooth. Once implemented, the management of the app is done by library staff. The content and layout of the app can easily be changed through the library's Google Docs account shared with Boopsie. Programming knowledge is not needed. Experience with spreadsheets and word processing is sufficient in order to add menu items, including a list of mobile databases or a link to a Facebook page.

In early 2011 the library held a second survey among its library users. In this survey, 37.9% of the respondents (N = 140) reported that they regularly surf the web with a mobile phone. A remarkable increase compared to the 13% in the 2009 survey. This increase is also visible, though less pronounced, in the usage data of the UB Gent Mobile app, which Boopsie makes available monthly through the Google Docs account.

Very recently the library built a mobile version of the university's academic bibliography and institutional repository using HTML5 and jQuery mobile, which can be consulted as a beta interface on <http://biblio.ugent.be/m>. Because of the hybrid nature of the Boopsie app, it can also easily be integrated as a menu item or added to the list of mobile databases.

The development of mobile services was a very interesting learning experience, from which the university library not only gained knowledge about mobile technology, but also about the benefits of outsourcing compared to inhouse development and cloud computing. With great enthusiasm, library staff is now considering how the library should respond to the current success of e-readers and tablets.

1 <http://search.ugent.be/meercat...>

2 .

3 <http://www.worldcat.org/mobile>.

4 <http://www.boopsie2.com/>.



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## **Résumé**

### **Deutsch**

**Dieser Beitrag zeigt in einem Überblick das Projekt und die damit verbundenen Entwicklungen, die zur Einführung eines M-Library-Angebots an der Universitätsbibliothek Gent geführt haben. Die Bibliothek hat mit der Verbreitung von Dienstleistungen über das Handy im Jahre 2009 entschieden, eine Katalogsuche mit dem Natel einzuführen. Für die grosse Mehrheit der Nutzer, die über kein Smartphone verfügen, wurde ein SMS-Modul dem OPAC hinzugefügt. Um für die weitere technologische Entwicklung gut vorbereitet zu sein, wurde 2010 die kalifornische Firma Boopsie beauftragt, eine App für die Bibliotheksdienstleistungen zu entwickeln. In jüngster Zeit wurde eine HTML-5-Webapplikation für die wissenschaftliche Bibliografie der Universitäts- und der Institutsdatenbanken entwickelt.**

### **Français**

**Cette contribution présente une vue d'ensemble d'un projet ainsi que ses développements connexes qui ont conduit à l'introduction d'une offre de type Bibliothèque Mobile à l'Université de Gand. La bibliothèque a décidé en 2009 d'un élargissement des services mobiles avec l'introduction d'une recherche dans le catalogue par l'intermédiaire du téléphone portable. Pour la grande majorité des usagers, qui n'ont pas de smartphone, un module SMS a été ajouté à l'OPAC. Afin d'anticiper le développement des technologies, en 2010, la société californienne Boopsie a été chargée de développer une application pour les services de la bibliothèque. Récemment, une application web HTML 5 a été développée pour la gestion bibliographique scientifique de l'université et celle des bases de données de l'institut.**