The National Accessibility Portal and Social Networking Sites: How to Make Facebook and Twitter Work for You

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Abstract: The National Accessibility Portal (NAP) is a website specifically designed to give South Africans living with disabilities access to important information which may enhance their lives. This information includes lists of schools for children with disabilities, copies of legislation, interesting news articles, calendar of events applicable to people with disabilities, lists of vendors of assistive devices, etc. Facebook and Twitter, on the other hand, attract millions of users. The question we asked was "Is there a way to harness the popularity of Facebook and Twitter in order to more widely publish the important information to be found on the NAP portal?" This paper describes how the developers of NAP used the various Facebook and Twitter facilities to reach a wider audience.

Keywords: disabilities, NAP, accessibility, Facebook, Twitter

1. Introduction

The South African National Accessibility Portal (NAP) is an internet presence aimed at addressing the marginalisation of South Africans living with disabilities. Special care was taken during the development of NAP to ensure that NAP was accessible and usable by people with visual disabilities [1], hearing disabilities [2], and other disabilities including mobility disabilities and mental disabilities.

Statistically, however, the majority of South Africans living with disabilities do not have computer workstations at home connected to the internet [3]. In view of this, NAP has also experimented with disseminating the information found on the NAP website via SMS and IVR (Interactive Voice Response) [4].

This paper describes a further enhancement to the South African National Accessibility Portal where information on the website was also forwarded automatically to two popular social networking sites, Facebook and Twitter. These enhancements are attempts to disseminate information to more people in South Africa who are living with disabilities. Information such as events, job vacancies, and news items which would be of interest to people with disabilities are published to an additional wider audience by using Facebook and Twitter.

2. Social Networking

An electronic Social Network is one in which participants can create a profile describing themselves, maintain a list of friends, invite people to become a friend, send and receive messages, etc. Examples of electronic Social Networks include Mxit, Facebook, Twitter, and MySpace. Various Social Networks allow participants to create extensive profiles of

themselves (such as Facebook) and other Social Networks have minimal profiles (such as Mxit). A quick search on Facebook for terms such as "wheelchair" or "disabled" in the South African Network finds South Africans who clearly identify themselves (or family members) as having disabilities. By comparing these names with the names of the registered users on the National Accesibilty Portal, we found that the majority were not aware of the National Accessibility Portal itself.

The question we asked was "Could we leverage the use of Facebook and Twitter to more widely distribute the information published on the NAP portal?"

3. Using Facebook as a Gateway to your Web Application

Facebook is more than just a social networking site. Facebook can act as a portal or gateway to other websites. Most of the applications which are available on Facebook are not written, supported, or hosted at Facebook. This can be seen by executing one of the applications (or, if you prefer, by "playing" one of the many games on Facebook). A footnote at the bottom of the screen will say something like "Built by [application name]". This links to an information page for the application which looks similar to:
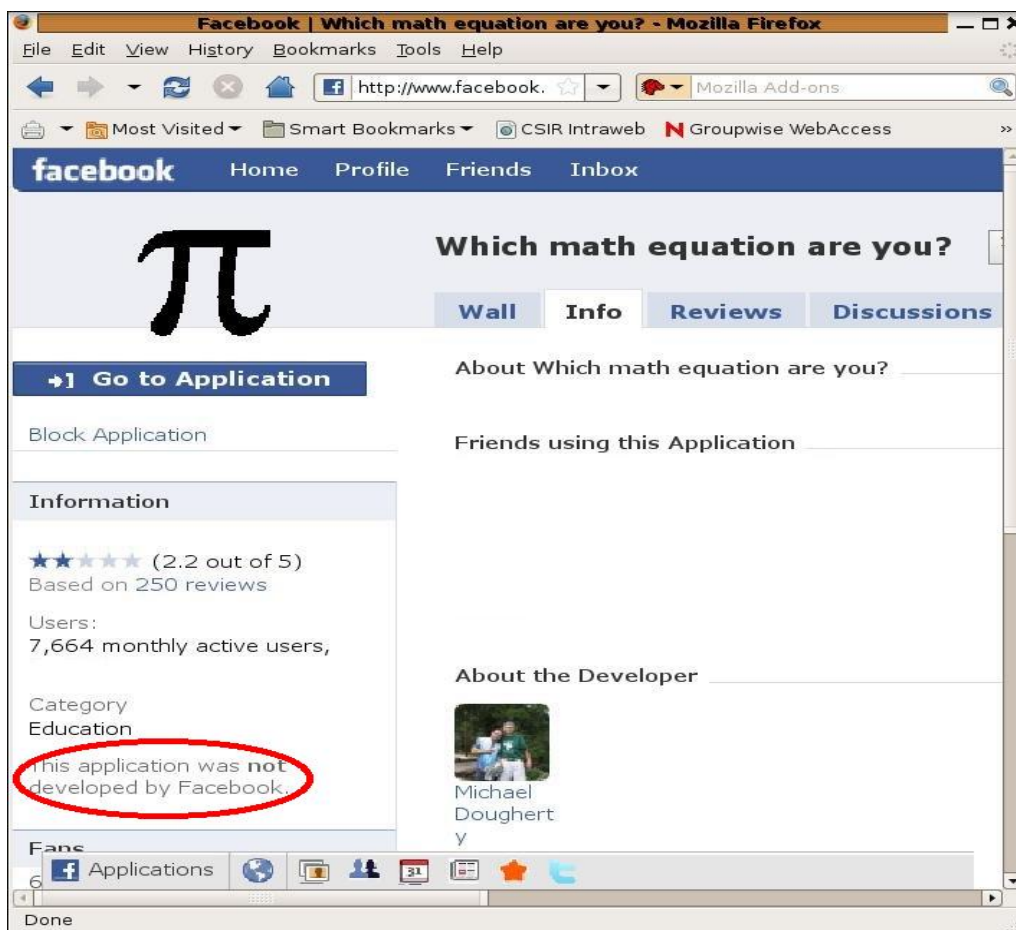

Applications which are not developed by Facebook are clearly indicated with "This application was not developed by Facebook." When a Facebook user executes this application (or plays this game), it will be running on a non-Facebook server.

4.   How Facebook Applications Work

At at the lowest level, a Facebook application is a servlet which exeuctes on a non-Facebook server when the user clicks through to this application or game. Facebook applications can be written in many languages. There are specific libraries available in numerous languages including PHP, Java, C++ and Perl. The officially supported Facebook API is in PHP.

In view of the fact that the National Accessibliity Portal is a J2EE application running under JBOSS, we chose to use one of the Java APIs for the development of our NAP Facebook application. A full description of the technical issues in linking the National Accessibilty Portal to Facebook can be found at [5]. The National Accessibility Portal Facebook application can easily be installed in a user's Facebook Profile.
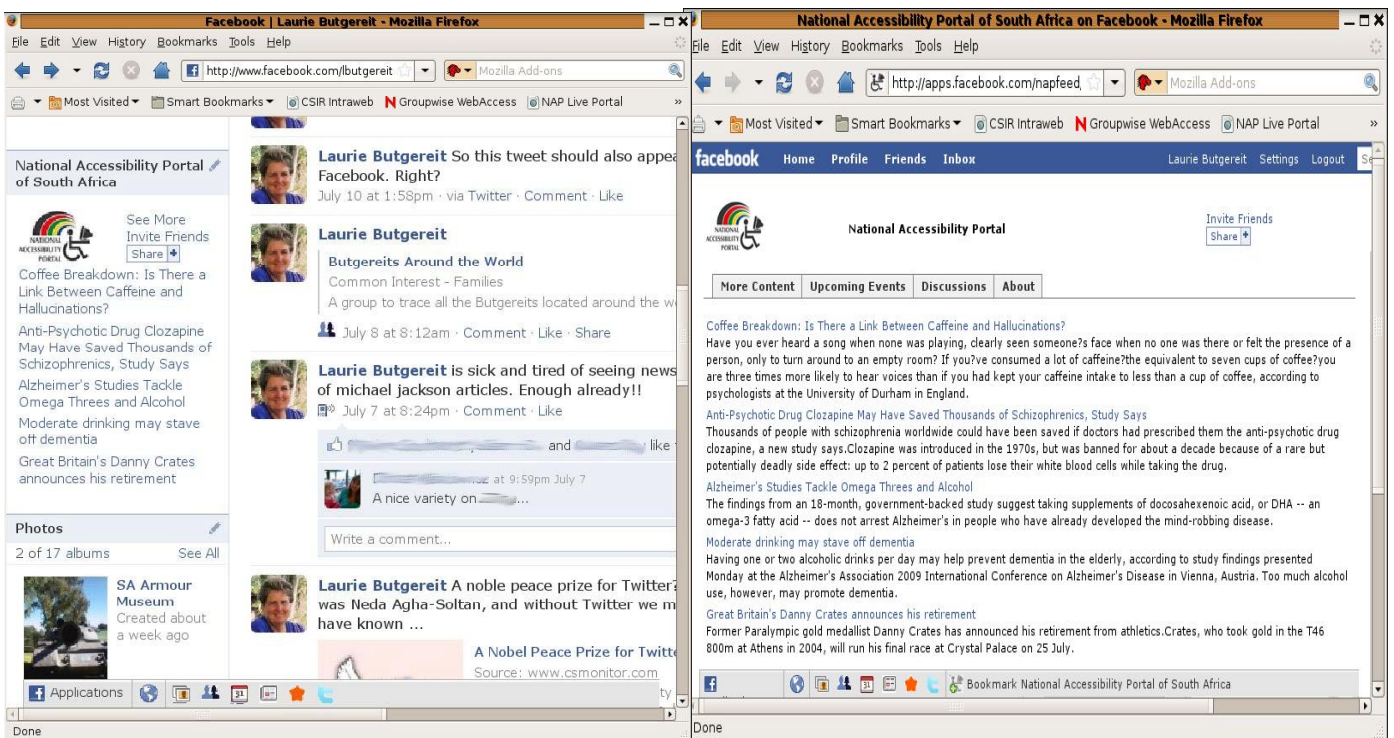
It can also be viewable on a Facebook page on its own:

5.   NAP Website Traffic and Bandwidth Issues

The National Accessibility Portal is a specialized website for a very targeted user group. It is not a high traffic website. Within 2 weeks of deploying the NAP Facebook application, however, it had increased the number of unique users getting information from the NAP portal by nearly 10%. Some of these new users also became registered users on the National Accessibility Portal itself while many of the application users only used Facebook to click through to the National Accessibility Portal.

We did encounter one problem by using Facebook as a gateway or portal to the National Accessibility Portal. Servers which host Facebook applications must have fast connectivity to the internet. This requirement is due to the fact that when Facebook attempts to execute the application on the non-Facebook server, Facebook will only wait a short period of time for the non-Facebook server to respond. This period of time does not seem to be documented and is not configurable. If the non-Facebook application does not respond within this period of time, Facebook assumes that the application has "crashed" or has a "bug" and prints an appropriate message. This is an unfortunate situation. There are

a number of public servers spotted around the world which host Facebook applications for free or for cost. We will be investigating this possible solution in the near future.

6. Twitter Grows Up

Twitter is a micro-blogging site where participants can post short 160-character messages about themselves [6]. Participants "follow" each other to receive a running commentary about what their friends are doing. Originally Twitter messages were simply a running commentary of a person's day with messages such as "In a meeting" and "Buying food for dinner." However, Twitter has evolved into more than just a social site where friends keep track of other friends. Twitter has become a mini-broadcast facility. According to the popular press, the Twitter tag #iranelection had more than two million "tweets" [7, 8]. Traditional news websites now often send out Twitter headlines. Celebrities and well know people such as astronauts regularly "tweet" to their followers.

7. National Accessibility Portal, Twitter and Sharing Content

Twitter provides APIs in numerous computer languages to allow developers to easily embed functionally into their software applications to allow them to automatically publish information on Twitter. We enhanced the National Accessiblity Portal so that the headlines of the new content published on the portal would also be published on Twitter simultaneously with a link back to the NAP portal itself.
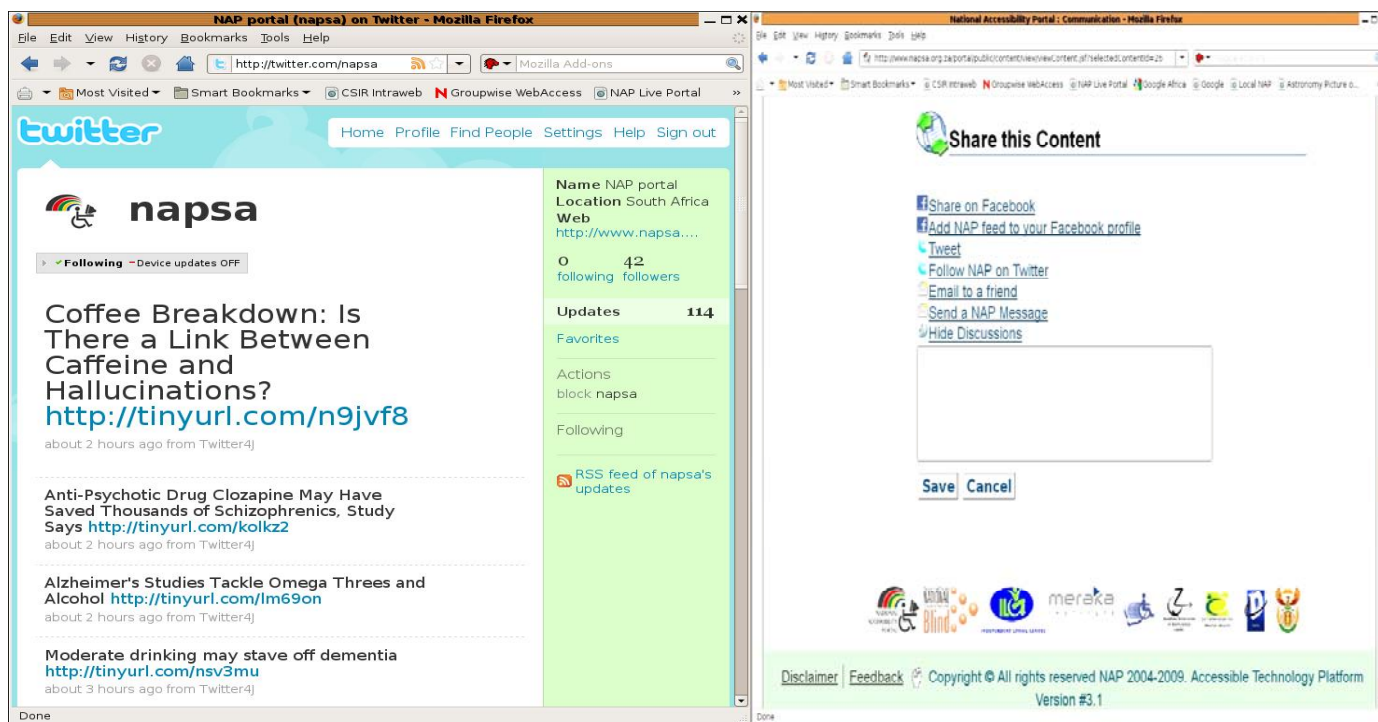
Another mechanism which can be used to leverage social networking sites is to encourage regular users to share your content on social networking sites they also visit.

8. Conclusions

We have found that by using free social networking sites, the National Accessibility Portal has been able to more widely publish important information to the people that need the information. Although the National Accessibility Portal is not a high traffic site, additional users have been able to obtain the information published on the National Accessibility Portal by accessing it through Facebook and through Twitter.

In comparing the uptake with both Facebook and Twitter, we have found that more people "follow" the National Accessibility Portal using Twitter than actually go to the effort of installing a Facebook application to allow them to track the National Accessibility Portal using Facebook.. Both mechanisms, however, are assisting in providing more South Africans living with disabilities information which may be of interest to them.

Although it is difficult to compare Twitter user names, Facebook user names, and the names of registered users of the National Accessiblity Portal, it is clear from the list that many of the Twitter and Facebook users are not registered users of the National Accessibility Portal. We are there reaching new people using these social networking sites and are providing them with important information which they may not have received if it were not for these social networking sites.

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