

This work has been submitted to **NECTAR**, the **Northampton Electronic Collection of Theses and Research**.

Article

Title: Mobile trends – institutional implications for web and app development

Creator: Howe, R.

Example citation: Howe, R. (2013) Mobile trends – institutional implications for web and app development. *Panlibus Magazine*. **28**(Summer), pp. 8-9. 1749-1002.

It is advisable to refer to the publisher's version if you intend to cite from this work.

Version: Accepted version

Official URL: <http://storage.capita-software.co.uk/cmsstorage/capita/files/0f/0fa50309-10f9-49f9-bd70-32ec56f10c4c.pdf>

<http://nectar.northampton.ac.uk/5585/>



Mobile trends – Institutional implications for web and app development

(Rob.Howe@northampton.ac.uk)

Over the past few years, The University of Northampton had identified a rapid growth in the number of staff and students with mobile devices. The institution aimed to provide a proactive response to the growth but needed to better understand about the nature and purpose of the devices which were being routinely used.

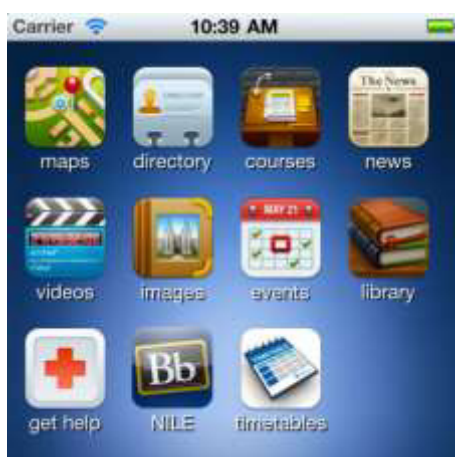
In 2010 a group of key stakeholders within the institution came together to discuss how they could best support mobile developments. Three key areas were identified through the group as areas for action:

- Marketing and promotion (e.g. institutional news, pictures and videos)
- The availability of key institutional administrative data (e.g. timetables and contact information)
- Development of an infrastructure to support learning and teaching (e.g. access to the VLE and library services)

In order to better understand the need of the University staff and students, a survey was developed and deployed in December 2010 (<http://bit.ly/mobile-survey-2010>) This was completed by 772 respondents. In addition to providing detailed information on current ownership of devices, it also provided key information on the types of services which staff and students needed to be delivered in a more flexible way.

As a result of the 2010 survey, a University app (iNorthampton <http://www.northampton.ac.uk/mobile>) was developed and a number of changes to the institutional web services were implemented (<http://blogs.northampton.ac.uk/learntech/tag/inorthampton/>).

iNorthampton Springboard



Whilst the analytics provided basic information on downloads and usage, the institution needed to better understand whether it was meeting the demand for mobile services. As a result a further survey was deployed in 2011 and completed by 678 respondents. The results of this

(<http://bit.ly/mobile-survey-2011>) identified that iNorthampton was generally well accepted and provided further information on key areas for development to support mobile devices.

In addition to evidence that iNorthampton was being used in marketing and the provision of administrative data, academic staff were increasingly exploring the opportunities of the mobile infrastructure for learning and teaching (<http://blogs.northampton.ac.uk/learntech/tag/malt/>).

iNorthampton – Quotes from users

Being able to post via a mobile means work in progress can be recorded in situ and shared spontaneously.

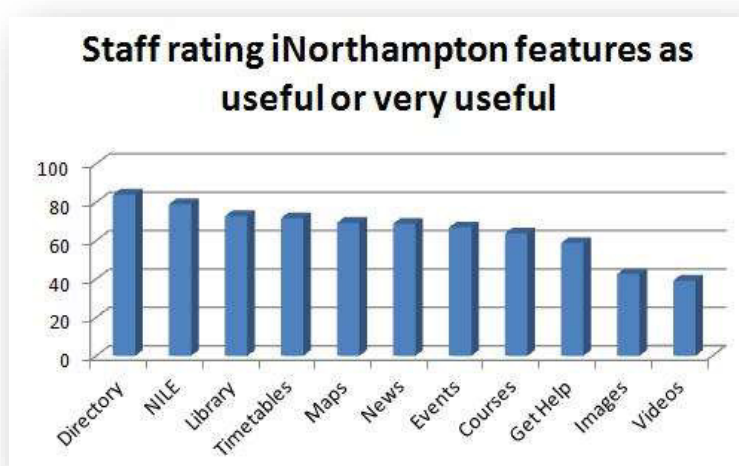
Am not tryna gas but thank God for the Northampton app because now I left my timetable at home, I would have been lost.

Can access NILE [the VLE] whenever I need to and if I need to check something quickly I can do. Also comes in handy if can't see properly in lectures as can bring them up on my phone.

Late in 2012 a third survey was provided to staff and students which built on the questions which were asked in the previous two surveys (<http://bit.ly/mobile-survey-2012>). The results of this survey, completed by 938 respondents, have identified further areas in which Northampton may improve its mobile provision and support, in addition to useful trend data.

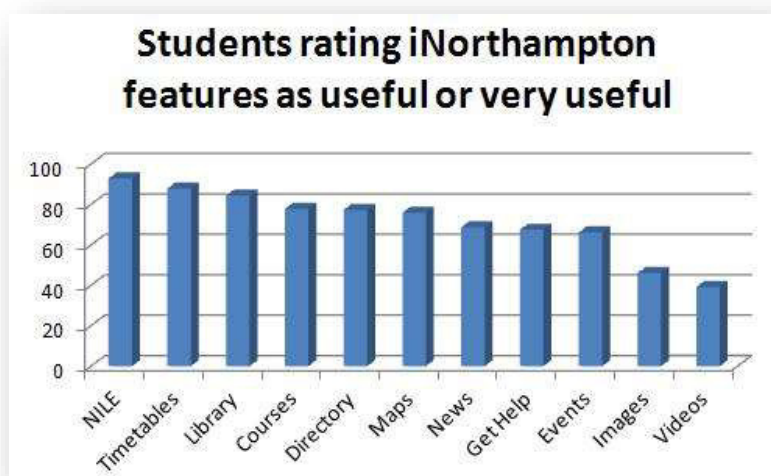
With regard to specific responses regarding the iNorthampton app, the staff (figure 1) and student (figure 2) responses have identified the most useful functionality currently in use.

Figure 1



For staff, the top three most useful features (Directory, NILE [MLE] and Library) reflect the patterns which were found in 2010/11 and 2011/12 surveys.

Figure 2



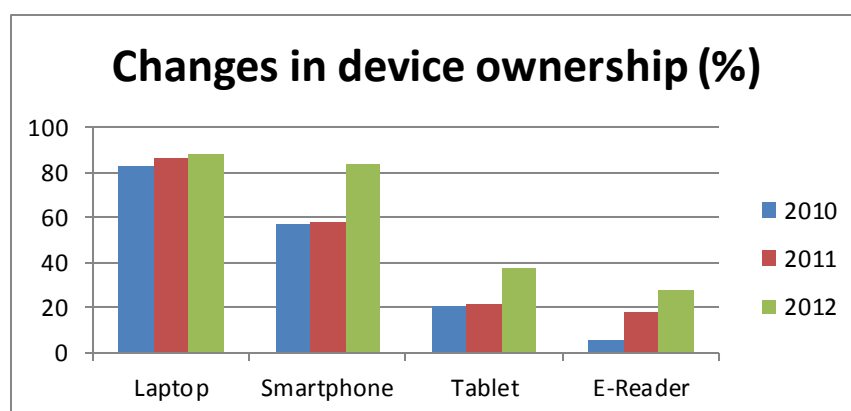
For students, NILE [MLE], timetables and Library still dominate the top three most popular features. The Directory value has significantly risen to 77.3% possibly indicating the increasing use which students make of this facility.

Whilst the Library website provides full access to all resources, the survey feedback is indicating that students are valuing the portability and ease of use of the app to assist them in finding resources.

Laptop – 88.2% (86%) and smartphone 83.4% (58%) ownership now dominates (See Figure 3). The rapid rise in smartphone ownership over the previous year and the increase in tablet ownership 37.5% (21%) is indicating a preference to move to these sorts of devices. 23.5% of respondents are planning to purchase a tablet device in the next 6 months. These results may not be surprising to those who walk around the libraries and may have implications for the types of devices which are

provided as loan devices. There does appear to be a trend in some areas for laptops replacing the need for some of the 'fixed' PCs – with the associated need for additional power sockets.

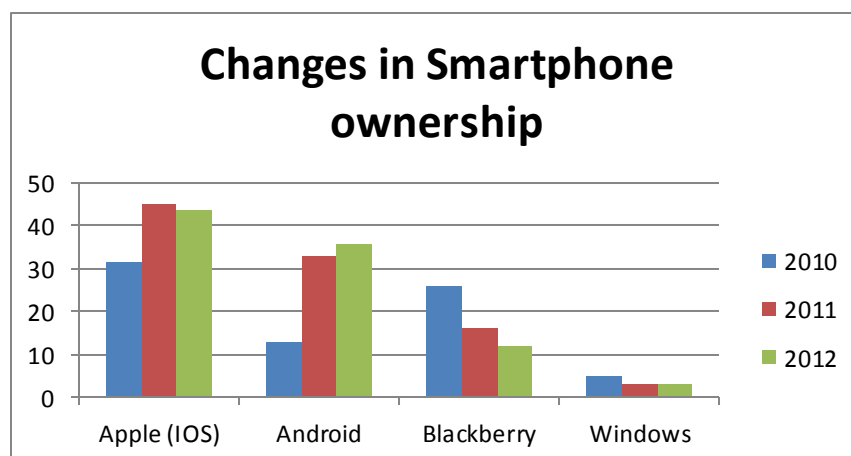
Figure 3



E-book reader ownership continues to rise 27.3% (18%) but it should be noted that many of the tablets and smartphones may also have E-book reader functionality.

Staff and student ownership of smartphones are indicating a preference for IOS 43.6% (45%) and Android 35.8% (33%) devices (See Figure 4). Blackberry represents 12% (16%). Other devices accounted for 7% which included Windows 3% (3%).

Figure 4



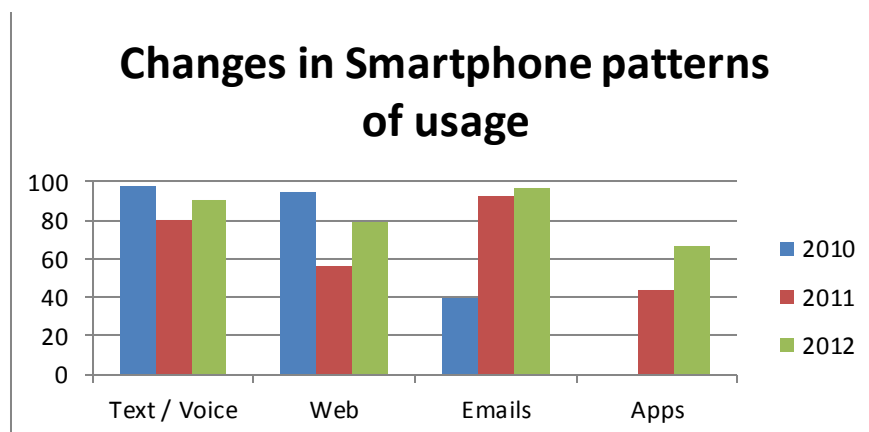
Accessing email 96.5% and accessing NILE 81.8% represent the normal weekly activity of staff and students - 92.7% are accessing email daily. General social networks such as Facebook were being accessed at least once a week by 75% of the sample – this dropped for professional networks to 40.9%.

With all types of technology use (personal and work related), a computer / laptop was mostly preferred over a mobile device - however the gap was close with regards to use of Facebook (60% used desktops compared to 58.5% using mobiles). Twitter was the only technology which was used more often on mobile devices (34%) than on desktops (26%). More detailed research is needed to

establish whether this preference is simply related to usability (screen size), or whether it reflects the limited provision of 'mobile-friendly' services.

With regards to patterns of use of mobile devices (See Figure 5), 90.8%(80%) use texts and voice calls regularly; 78.7% (56%) regularly use their device to browse the web; 71% use their device to read emails; and 67% (44%) regularly use mobile apps.

Figure 5



The move of the University of Northampton in 2013 to a responsive website has meant that pages are now scaling correctly for different devices. This has led to some of the springboard items within iNorthampton are now pointing directly to the website rather than using a customised data feed within the app. This is making it easier to maintain the data being displayed but some more work may be required to produce the same experience which users used to see through the app.

The changes in device ownership are raising opportunities for institutions who may wish to take advantage of new options for learning and teaching. For example smartphones may be used to interact in lectures / seminars; gather evidence for portfolios or enhance course communication facilities.

There are also considerations to be made with regard to:

- Infrastructure (Does your site have easy to access wireless?)
- Device inclusion (Do all learners have the same opportunities? Refer to Traxler (2010));
- Accessibility (Is all material provided available on students own devices? – Refer to Techdis for more support in this area);
- Training (Do all staff and students know how to get the best out of their devices?)

Whilst Northampton is continuing to refine its approach to supporting mobile devices, a number of key tips may be useful for other institutions who wish to learn from our experiences.

1. Conduct user surveys and focus groups to identify what stakeholders require from the institution and what they have already. Decide which needs you are able to satisfy now and in the future.
2. Develop a supportive infrastructure (technical and cultural)

3. Plan for provision of mobile devices. Provide guidance to staff on making material mobile accessible or better still develop a responsive website which means that material may be developed once but will be available on any device.
4. Ensure inclusiveness for all stakeholders. Some staff and students already have suitable devices – others may not. Decide on the implications for this.
5. Ensure that you remain well networked on cross sector developments. This is a rapidly evolving area.

References

TechDis on mobile learning:

http://www.jisctechdis.ac.uk/techdis/pages/detail/goingdigital/Adding_value_to_learner_with_m-learning

Traxler, J. (2010) "Students and mobile devices." ALT-J Research in Learning Technology [online] 18.2, p149-160. Available from:

<http://www.researchinlearningtechnology.net/index.php/rlt/article/view/10759>