

# Bring Your Own Devices (BYOD) at Loughborough University Library



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December 2013

University Library



## Executive summary

In 2013, the Library and IT Services at Loughborough University undertook a small scale investigation into the impact of Bring Your Own Device (BYOD) and students. In recent years an increasing number of people coming into the Library building were equipped with their own laptops or tablets or smart phones (or a combination of them all). At the same time it is becoming increasingly easy to access content via these hand held devices. The purpose of the study was to inform the Library's 2013 refurbishment.

Information collected as part of the SCONUL data between 2009 and 2012 was analysed. This showed that the occupancy of the Library building was increasing, the number of people with their own devices with them in the Library was also increasing and the demand for networked PCs in the Library was at a constant high level. A short survey was completed by 129 Library users in February 2013 focusing on students and BYOD. Various similarities and differences were identified in how students were using laptops, tablets and smart phones. Other questions about using ICT also generated some valuable data.

This study has been used to contribute towards how BYOD has been supported in the refurbished Library which opened on the 30th September 2013. This is best demonstrated in the new workstations provided in the Library. The fast moving nature of the technology means that the Library and IT Services need to continually monitor how the changes are developing.

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## 1. Introduction

On the 30th September 2013, Loughborough University Library opened after a major refurbishment. One driver behind the building changes was to enhance access to Information and Communication Technologies (ICT). In order to ensure that the planning decisions were appropriate, evidence was used wherever possible. In January 2013, it was realised that the Library did not have enough intelligence about the impact Bring Your Own Devices (BYOD)'s impact. In recent years, students were observed increasingly using palmtops/ laptops/tablets/ i-pads/smart phones in the Library. The Library also provides access to over 100 fixed pcs. The Library needed to develop a better understanding was needed to shape the physical space to accommodate BYOD. The work was done in collaboration with IT Services who are responsible for many aspects of ICT delivery in the Library.

It was agreed that the study would be small scale as the work was completed within existing workloads. A project team was made up of people from the Library and IT Services:

- Gary Brewerton, IT Services
- Matt Cunningham, Library
- Ginny Franklin, Library
- Graham Walton, Library
- Clive Woodhouse, IT Services

## Methodology

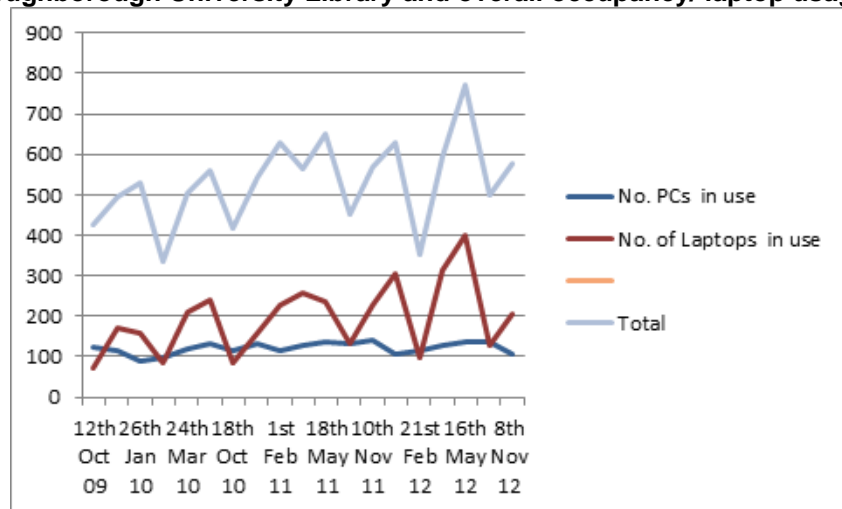
The Library collects a wide range of data on a regular basis on how various Library services are being used. This is done both for internal purposes as well as to contribute towards the data collected nationally for SCONUL. The SCONUL data for Loughborough University Library was examined between 2009 and 2012 specifically on levels of occupancy, numbers using PCs and numbers using 'laptops'. To complement this, a short questionnaire (see Appendix 1) was completed by 129 students in the University Library in February 2013.

## Results and discussion

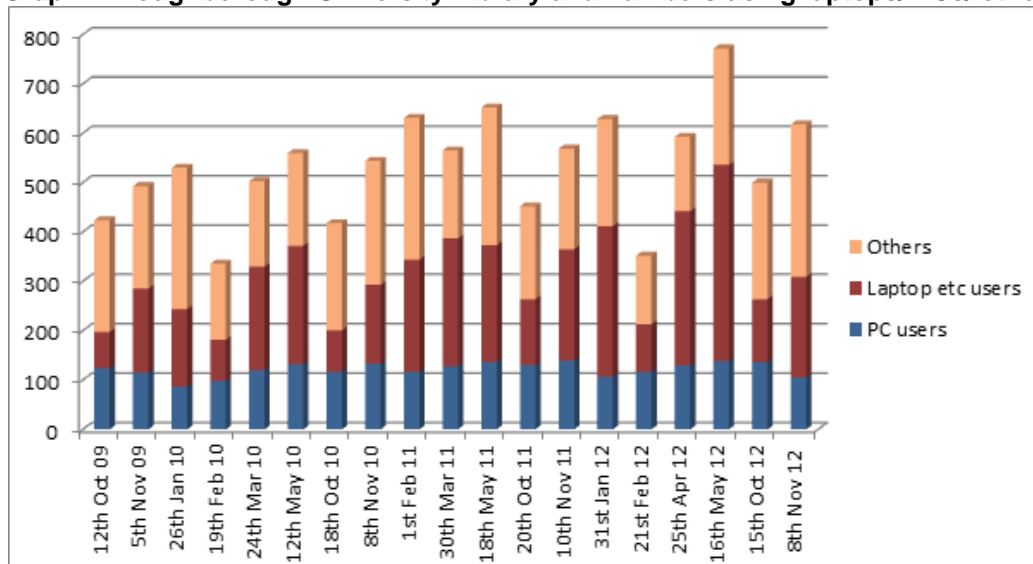
Graphs 1 (overall occupancy/ laptop usage/ PC usage) and 2 (numbers using laptops/ pcs) are based on information collected for SCONUL. These illustrate various trends with the general direction being:

- increases in the number of people physically using the Library
- increases in the number of individuals visiting the Library with their own hand held devices
- level of demand for Library networked pcs remains at a constant high level.

**Graph 1: Loughborough University Library and overall occupancy/ laptop usage/ PC usage**

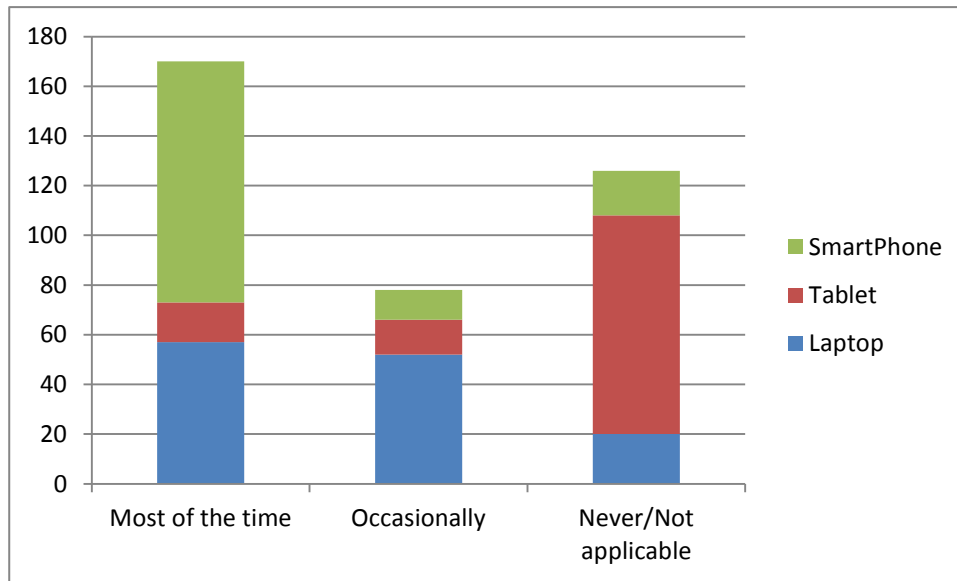


**Graph 2: Loughborough University Library and numbers using laptops/ PCs/ other**



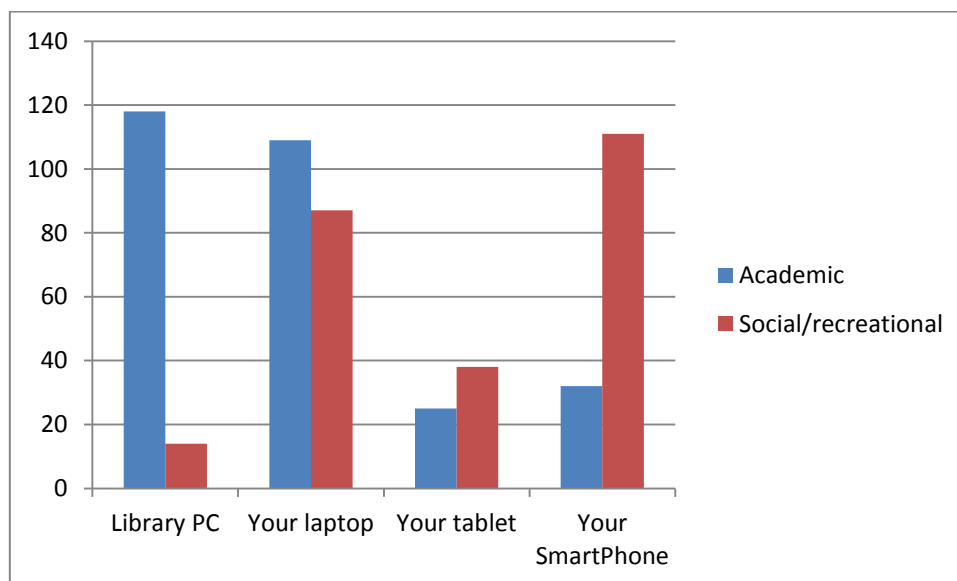
The Library undertook a student survey as it did not have data on the extent to which BYOD technology was prevalent in people using the building. Graph 3 shows the frequency that people who completed the questionnaire bring in laptops/ tablets and smart phones.

**Graph 3: Extent to which users have smart phones/ tablets and laptops when visiting Library**



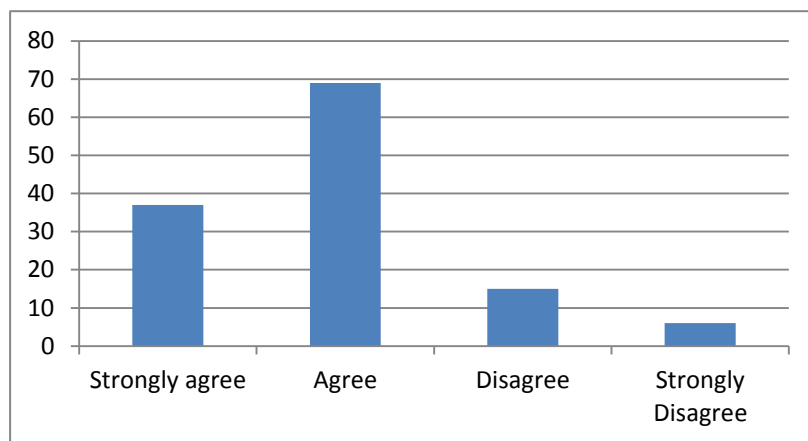
Library users had all three BYODs (smart phones, tablets and laptops) present at some time. Smart phones were more likely to be present than the others with tablets being the least likely. These trends should be seen as a snapshot from February 2013 as the rapid technological changes will influence users' behaviour very quickly. It was also important for the Library to understand what the different technologies (including networked pcs) were being used for. It was decided to differentiate the uses between academic purposes and social life (see Graph 4).

**Graph 4: Extent to which networked pcs/ smart phones/ tablets and laptops are used for academic and recreational purposes**



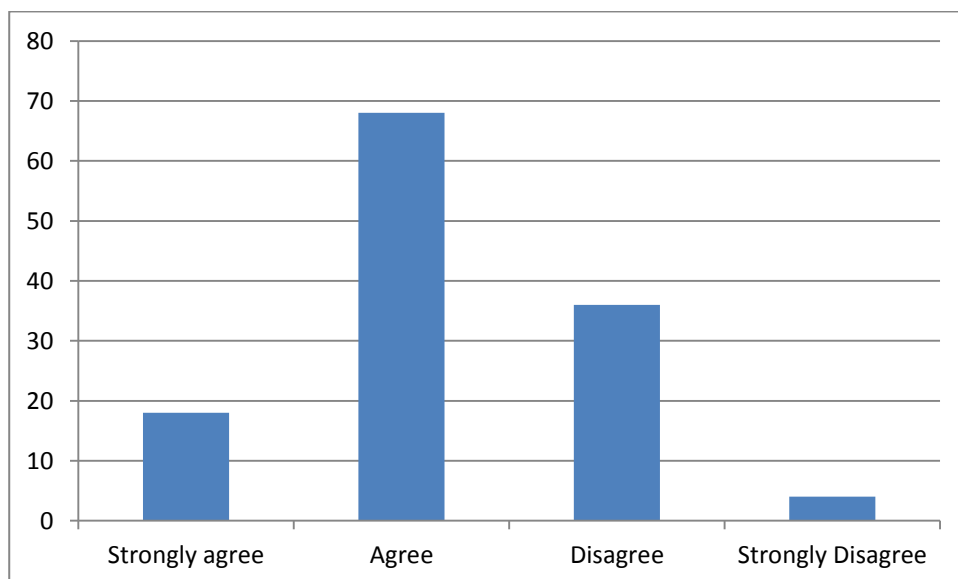
Significant differences in the applications of the various devices are shown. The most obvious are that Library networked pcs are used primarily for academic work whereas smart phones have a social function. Laptops are more likely to fulfil both needs. Tablets have the lowest levels of use. Again it is probable that this picture will change as the technologies themselves develop. Various other aspects of using ICT within the Library were also explored in the questionnaire. In Graph 5, the results are shown about whether the Library provided access to the software that people required.

**Graph 5: Extent to which people can access the software they need in Library building**



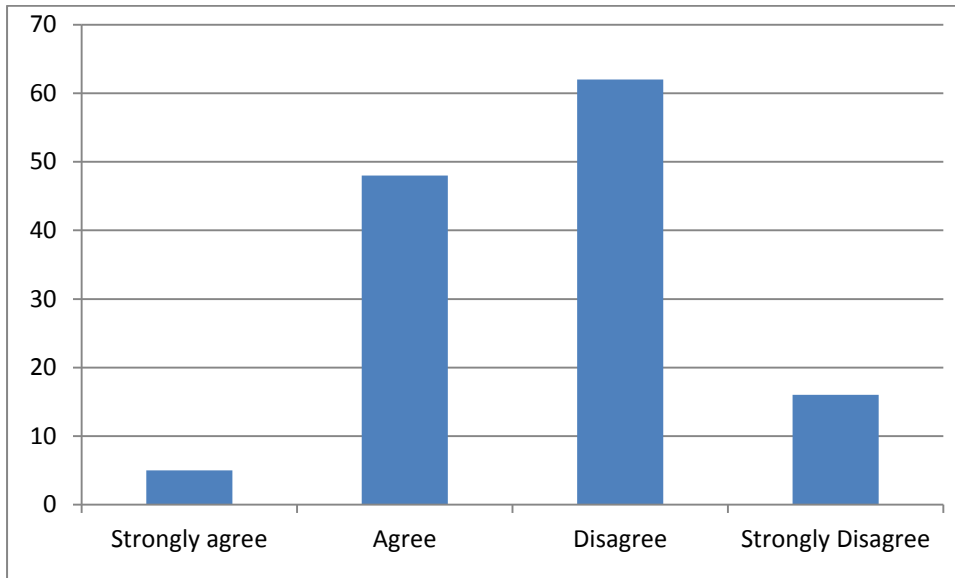
The results indicate that for most Library users, they are provided with the software they need. The Library has made available short stay pcs since 2012 and Graph 6 indicates the ease with which they can be accessed. These findings point to most users being able to find a short stay pc when needed.

**Graph 6: Extent to which users can access short stay pcs in Library**



There is a contrast between the ease with which people can access a short stay pc in the Library compared with other fixed pcs (See Graph 7).

**Graph 7: Extent to which users can access pcs in Library**



It is only the minority who agreed that it is very easy to be able to find a fixed pc in the Library when it is needed. People were asked what they did when they could not find a fixed pc to use in the Library.

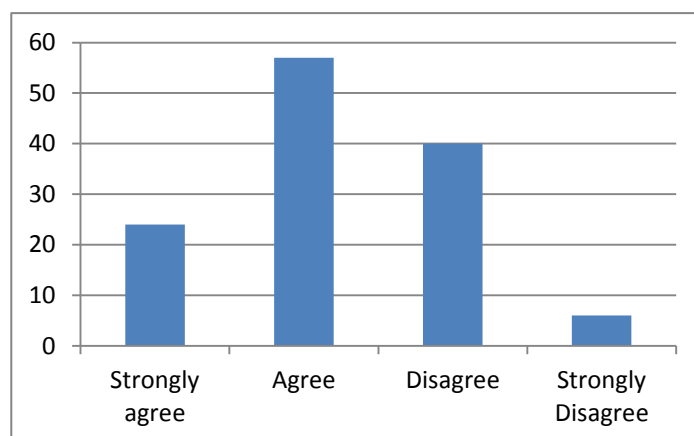
Use laptop – 42	Wait – 13	Use phone - 1
Go home – 33	Ask Library staff - 3	
Go to dept – 27	James France - 2	
Haslegrave – 14	Read newspapers - 2	

This shows that not that many people went elsewhere on the campus where other pcs could be located if they could not find a pc to use in the Library.

As part of the refurbishment, the student PC Clinic in Haslegrave was re-located into the Library. The questionnaire identified the extent to which students would value having support provided in the evenings and weekends (Graph 8).



**Graph 8: Extent to which it would be helpful to have weekend/evening IT support in Library**



This demonstrated that users would value having this extended IT support at weekends and evening.

### **Conclusions and recommendations**

This study provided the Library and IT Services with some useful data to inform how the Library refurbishment should support BYOD. The results were incorporated into the discussions about how ICT should be configured and how it should be enhanced. The key trends that had to be addressed were the increasing numbers of people using the Library building, their increasing likelihood to have their own device and the need to be able to access easily fixed pcs. Alongside other evidence, these findings informed the following features that were planned and delivered in the refurbished Library:

- Library work stations have two electric sockets and data point to enable students to easily use different devices at same time
- Group study facilities have multiple electric sockets and data point to enable groups to easily use different devices at same time
- Number of power sockets have been significantly increased to support students own devices
- Provision of study spaces for people to use laptops has been increased
- Number of networked pcs has been increased
- PC Clinic has increased its opening hours to cover evenings and weekends for a one year trial basis

- Information is provided to users where else on campus they can find a pc to use apart from the Library

There is no expectation that the trends and developments identified in this study will remain unchanged. There will be technological developments which are on the horizon that completely change students' needs and expectations. Will smart phones become more central to academic work? Will the increased profile and use of technology such as ipads continue? The Library and IT Services will need to continue their close co-operation and partnership to ensure future services are shaped by how BYOD develops.

## Appendix 1 Questionnaire used to explore 'Using technology in the Library'

### 1. How frequently do you bring the following devices with you to the Library?

	Most of the time	Occasionally	Never/Not applicable
Laptop			
Tablet			
SmartPhone			

### 2. What purposes do you use the following devices for?

	Academic	Social/recreational
Library PC		
Your laptop		
Your tablet		
Your SmartPhone		

### 3. Please indicate whether you agree or disagree with the following statements

	Strongly agree	Agree	Disagree	Strongly Disagree
I can access the software I need in the Library* (please state unavailable software.....)				
Short stay PCs are always available in the Library when needed				
PCs are always available in the Library when needed				
Having weekend/evening IT support in Library would help me				

### 4. If you can't access a PC in the Library, what do you do?
