europeana

connect

Culture on the go

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Austrian National Library, 5 October 2011

Introduction: the pebble in the pond
Culture on the go

Three years ago you threw a little pebble (Europeana) in a rather big pond (the Web)

Since then been studying what is happening to the pebble using a methodology called digital footprint analysis (deep log analysis)

From these millions of footprints we have created a picture of what *3 million people* actually did in the virtual space, called Europeana. Not what they say they did!

Today will focus on the footprints of one particular Europeana community, and a very strategic one at that: the *thousands of 'new kids on the block'* that choose to access Europeana via mobile devices.

Especially want to know how big the community is, how fast it is growing and what are its characteristics, because we know very little about this community, even outside cultural sector.

Shall not ignore people using PCs and laptops in the office, because what we also want to know whether mobile users behave differently.

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Why mobiles are really interesting
Culture on the go

- **Massively popular**. Mobile devices used more and more for accessing the Web for information and forecast to be *the* platform of choice in a few years, so the tail could wag the dog.
- **Cool and social.** So extend the reach of websites and draw in a wider range of people.
- **No boundaries**. Mobiles enable people to search on the move, virtually anywhere and at any time – and in the social space.
- **People pay to use them.** Mobile consumers used to paying to access information.
- **Small is beautiful**. People search on smaller devices, which typically have less functionality.
- **Restricted functionality.** Mobile user presented with a simplified ‘lite’ interface, without some of the search functionality available to the PC user.
- **They are not all the same.** Three years ago Europeana was prescient in its design for users with mobile phones, but in past year tablets have taken off. Mobile, touch-sensitive, lacking keyboard and mouse, but no longer a tiny screen; the design of tablet interfaces is feeding back into the desktop.
- **The big question**. Clearly then web use via mobile phone and tablet offers a different user experience from the desk-bound PC so does this have an impact on information use and seeking behaviour?

The general very healthy picture
Europeana use and users

- **Insatiable demand for Europeana content**

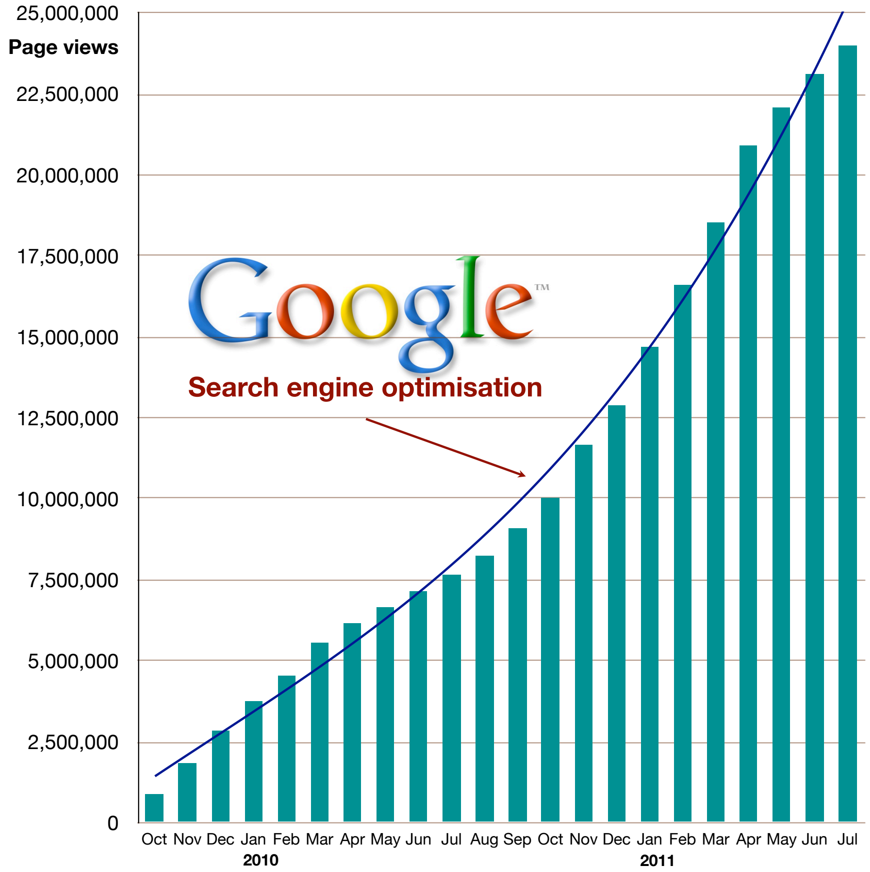
Since it was launched in November 2008, Europeana has delivered nearly 25 million page views and traffic is growing at a remarkable pace, with page views increasing annually by 214%.

- **The power of Google**

Opening up Europeana to deep indexing by Google has been a major factor fuelling this growth, leading to a six-fold increase in the volume of transactions. Google is now responsible for more than half of all visits to Europeana. As well as creating a wider audience for Europeana content search engine indexing has changed the way the site is used. New Google-directed users go straight to content rather than navigating their way from the home page.

- **Big growth in user numbers as well as activity**

Based on current trends, Europeana is on the brink of a major breakthrough in terms of unique visitor numbers. During the period September 2010 to August 2011, almost 3 million people visited Europeana and we expect this to grow to 5.5 million during the calendar year 2012.

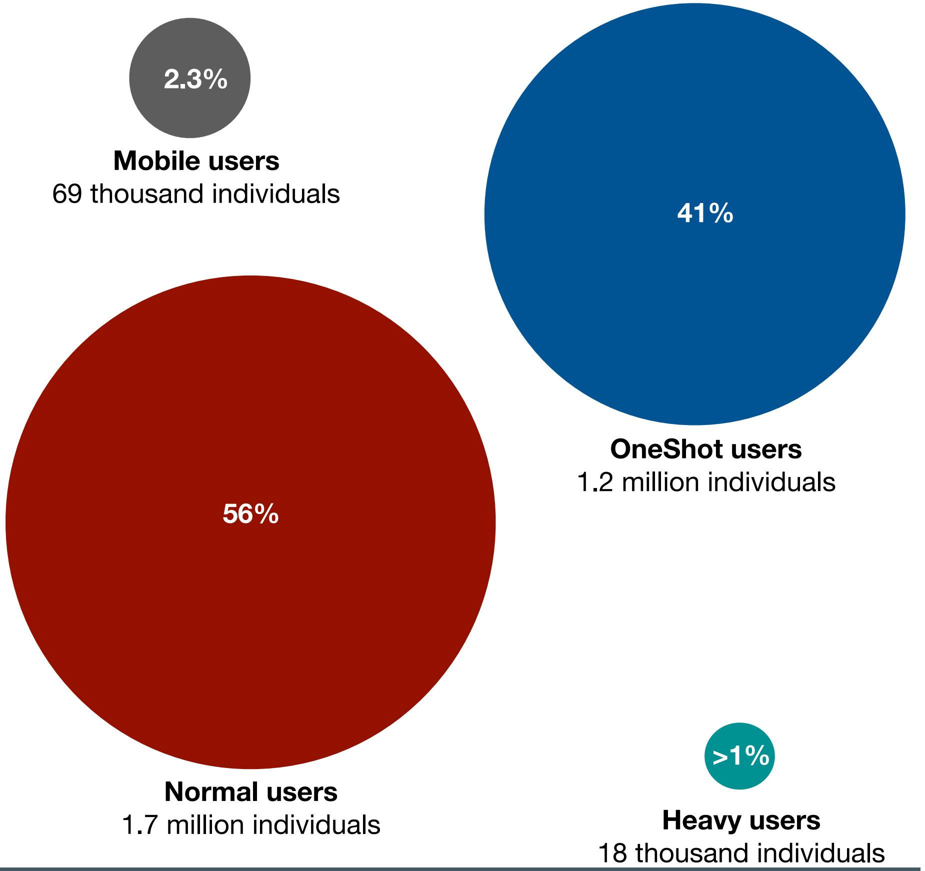


Cumulative monthly growth of Europeana page views
December 2009 to July 2011

Categories of Europeana users: a perspective

Europeana use and users

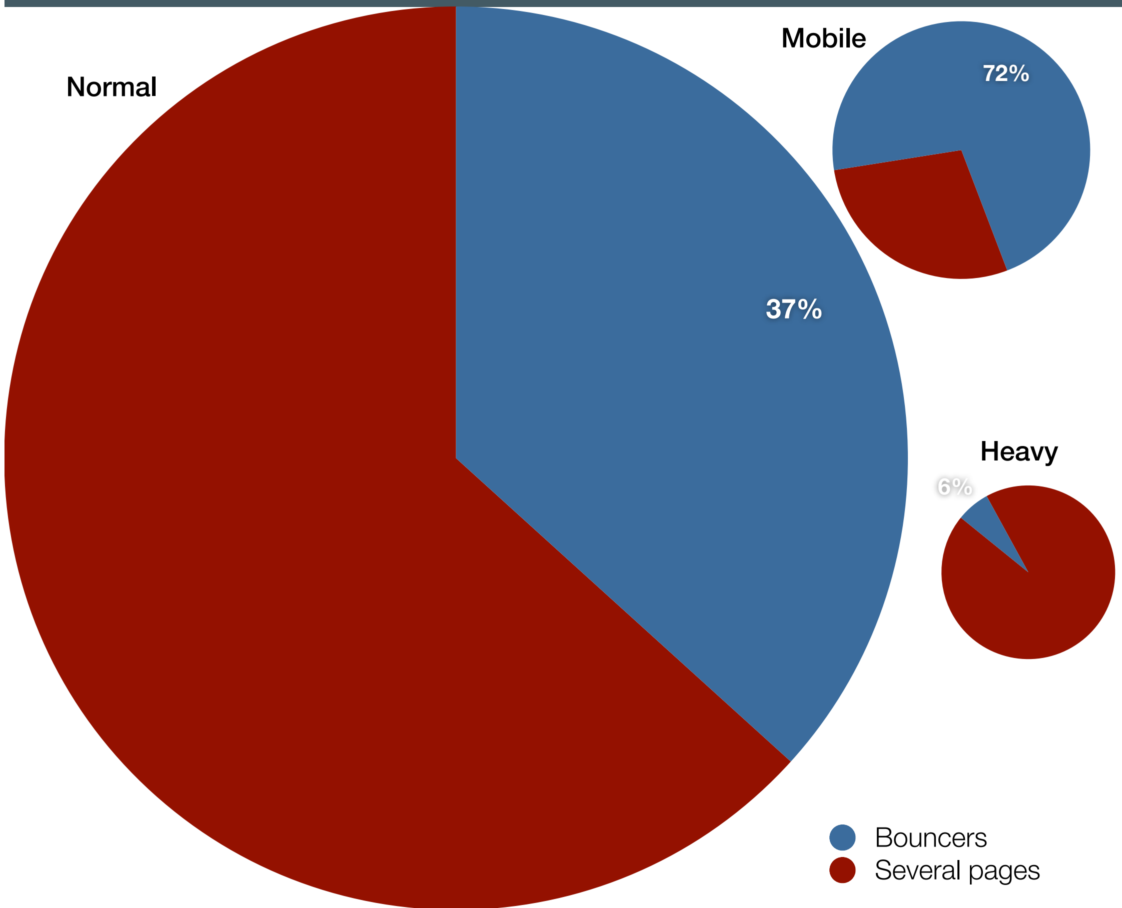
- In 12 months September 2010 to August 2011, Europeana had around three million unique users. They can be divided into four groups:
- **Mobile users**, the focus of this paper accounts for 2.3% of users.
- **OneShot users** are a large and interesting group, who only view one page and who have not yet paid a return visit to Europeana since we began looking at the logs in October 2009. Low on engagement.
- Remaining users can be usefully divided into `**heavy**' and `**normal**' by number of page views made. Heavy users tend to be institutions involved with Europeana: use here includes both development activity and general use from public kiosks, schools or colleges.
- Heavy users represent less than 1% of all users, but account for a far higher proportion of visits and page views. They score higher in terms of `engagement' but because this category includes internal use by Europeana project such `engagement' might not be typical.
- Mobile visitors fastest growing category: 17% of visitors by 2012. Conservative estimate because of enhancements to the mobile Europeana experience and fact that installed base of internet-ready mobile devices will overtake that of desktops/laptops in 2013.



Unique visitors to Europeana: September 2010 to August 2011
CIBER estimates

Bouncer visits

Europeana mobile use and users



Have seen how many users only viewed one page and never came back. Now let's look at a similar phenomena: the proportion of single page visits of people who do come back.

Cannot measure engagement in case of bouncing visits, and can only guess the context or motivation that brought someone to Europeana. However reasonable to suppose that nature of the page view will be a significant factor. A single view of a page such as 'aboutus' may provide a satisfactory answer, on other hand Europeana homepage, offers little to engage user who goes no deeper into the site.

Notable effect of the search engine optimisation in early 2011 was to greatly increase the number of bouncing visits going to a record page rather than the homepage.

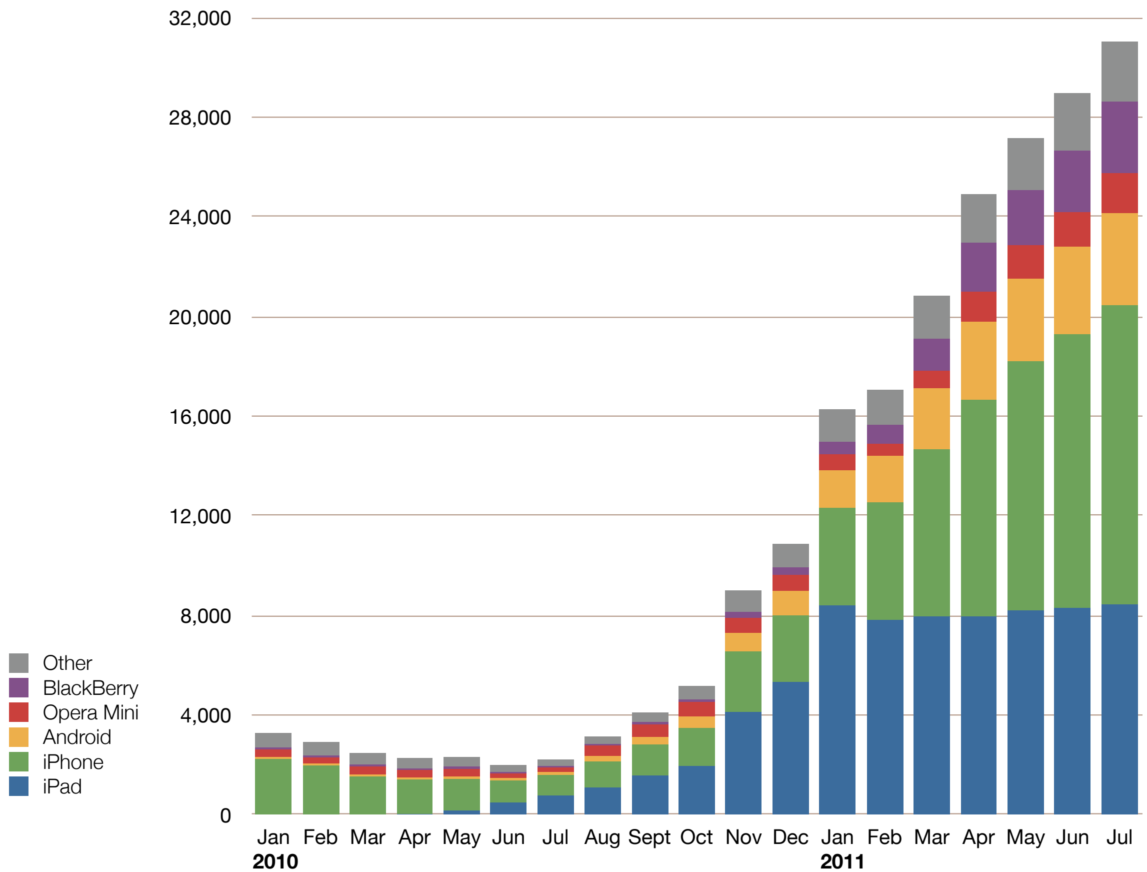
Mobile visits nearly twice as likely to be bouncing ones than normal users, and more than ten times as likely for heavy users. They are 25% more likely to view the homepage, 25% less likely to view the record.

Percentages of bouncer visits by user type
Normal, heavy and mobile users compared, January to July 2011

Growth in Europeana mobile use

Europeana mobile use and users

- Chart opposite shows monthly numbers of page views for individual mobile devices and an exceptionally rapid period of growth following search engine optimisation.
- Fastest growth coming from the iPhone.
- If these trends continue, as we confidently expect, then mobile access is likely to become a significant component of Europeana's future traffic, with considerable implications for system design.

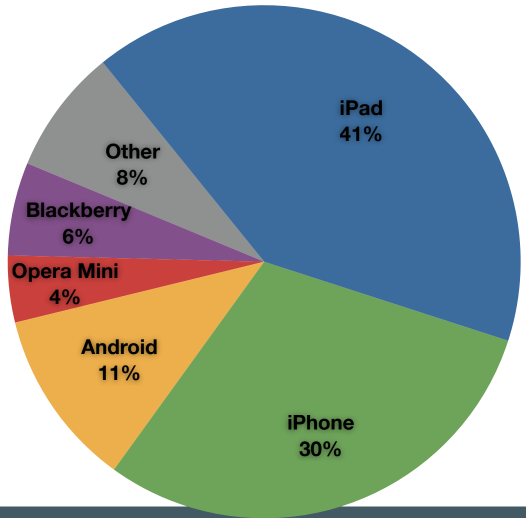


Europeana: Mobile page views by platform
January 2010 to July 2011

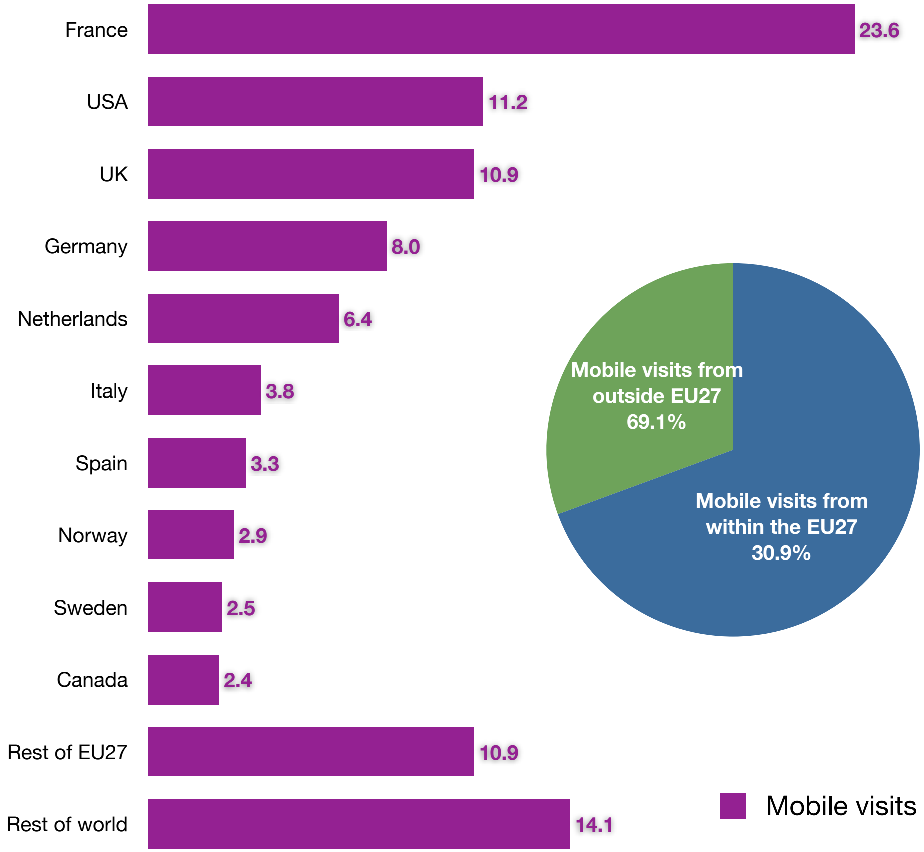
Who uses Europeana on the go?

Europeana mobile use and users

- Europeana's mobile users are huge fans of Apple cool, with traffic dominated by Apple's iPad and iPhone which, in July 2011, accounted for more than 70% of all mobile page views. These devices particularly suited to viewing cultural content because of their very high definition.
- French users dominate the mobile market for Europeana content within the EU-27, despite having the second lowest number of mobile subscriptions per 100 inhabitants. Note the Americans – second!



Europeana mobile page views by platform worldwide
January to July 2011



Europeana mobile visits by country global % market shares
October 2010 to July 2011

What do Europeana mobile users look at?

Europeana mobile use and users

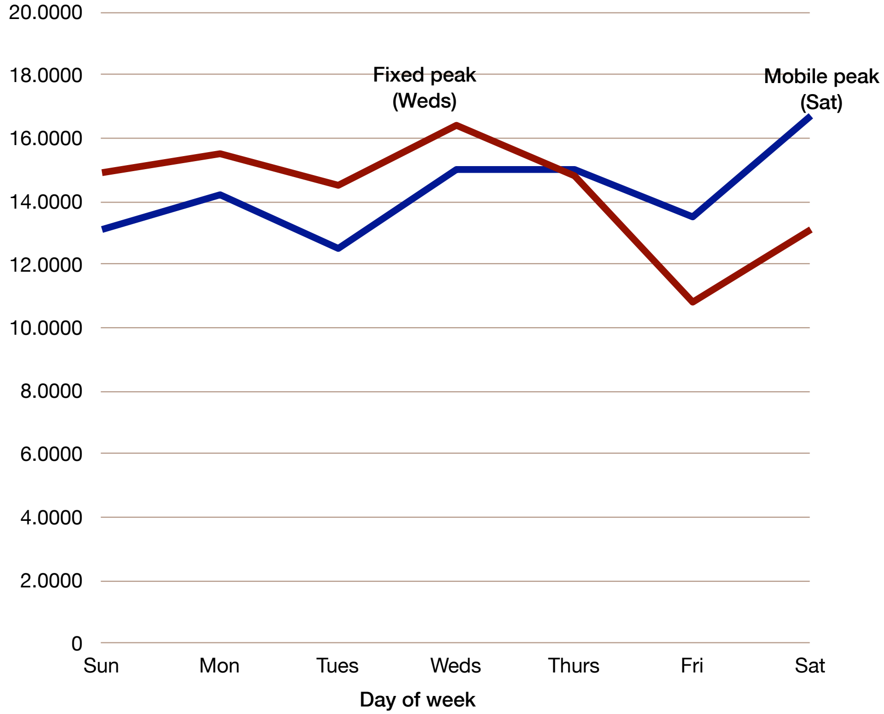
- The ten most popular destinations for Europeana users on the go are shown opposite, with French materials highly represented in rank positions 1, 3, 4 and 5. France contributes the second largest amount of content to Europeana.
- As in so many other areas of information consumption, use of Europeana is highly skewed. These top ten collections which represent a little under 3% of all collections serve up just over half of all the page views made by mobile visitors.
- Far from being a negative, the mirror image of this distribution is a long tail of lower intensity use across a large number of collections, providing users with fantastic diversity and choice and opportunities for even the most specialised and esoteric tastes to be satisfied.

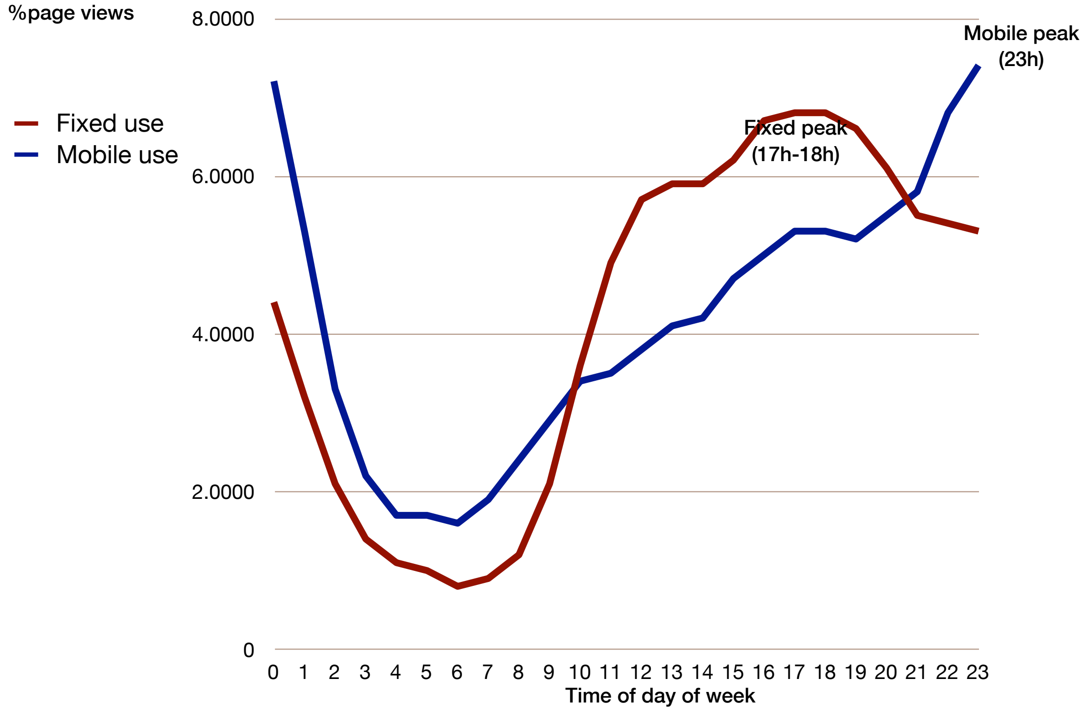
Collection	Provider	% mobile page views
Joconde (French museums)	Culture.fr	10.1
SCRAN (Scottish museums)	SCRAN	9.0
RMN Grandpalais (French art)	Culture.fr	6.5
INA (French TV and radio archive)	Institut national de l'audiovisuel	5.5
Gallica (French monographs)	Bibliothèque nationale de France	4.6
Deutsche Fotothek (German picture archive)	Sächsische Landesbibliothek	4.5
DigitaltMuseum (Norwegian museums)	ABM Utvikling	3.8
Ga het na (Dutch national archive)	Nationaal Archief	3.7
Digitale Bibliothek (Bavarian digital library)	Bayerische Staatsbibliothek	3.0
IMC (Irish census records)	Irish Manuscripts Commission	3.0
Total		**53.7**

Ten most popular Europeana collections viewed by mobile users
EU-27 percentage market shares by page views, January to July 2011

When do they look at Europeana?

Europeana mobile use and users





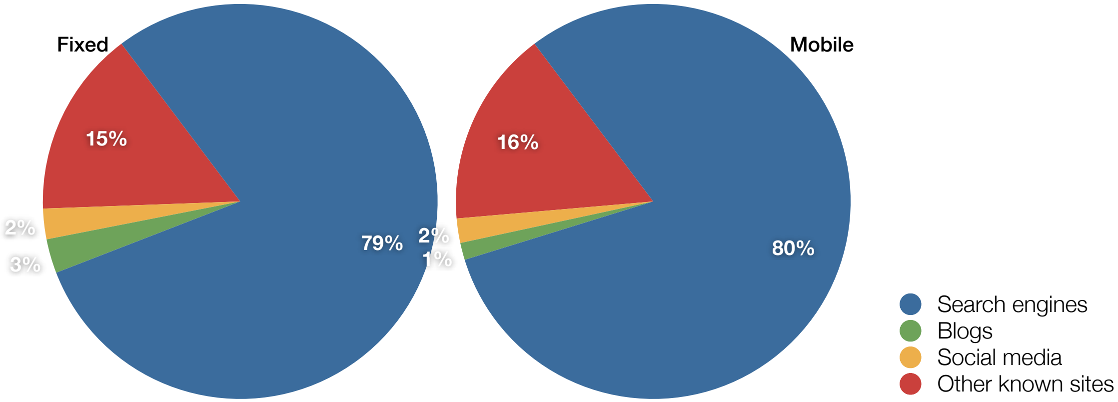
Intensity of use varies between the week and the weekend and at different times of the day as people shift between different contexts and personas, from the professional to the personal perhaps.

Percentage of Europeana page views within category: mobile and fixed users by day and time
October 2010 to July 2011

Referrals from other web sites

Europeana mobile use and users

Referrals to Europeana
Percentages of known referred visits, January to July 2011 (OneShots excluded)



Web sites of different types direct traffic to Europeana. Bulk of referrals come from search engines. The remainder from institutional sites and via the wisdom of the crowd through blogs and other social media.

Mobile and fixed users do not differ really in terms of their pattern of referral.

Different types of referring sites have a big impact on where people land once they get to Europeana. Search engines typically take them straight to a record page, blogs to the homepage, and social media to a wider variety of entry page types.

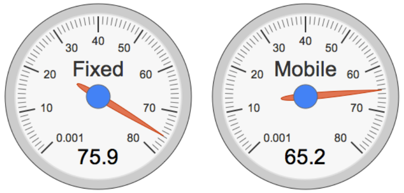
	TYPE OF REFERRING WEBSITE		
ENTRY PAGE	***Search engines***	***Blogs***	***Social media***
homepage	18	90	55
search	-	1	12
record	82	1	23
redirect	-	4	5
other	-	4	5
All entry pages	**100**	**100**	**100**

Types of referring websites and entry into the Europeana web site
Column %s, users and mobiles combined, January to July 2011

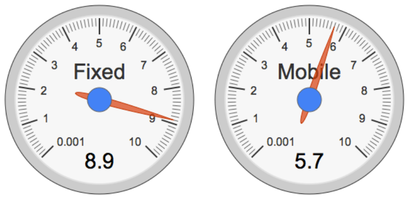
CIBER dashboard: fixed and mobile users compared

Europeana mobile use and users

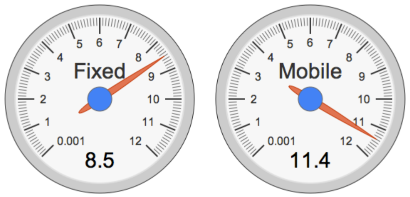
Duration of visit (seconds)



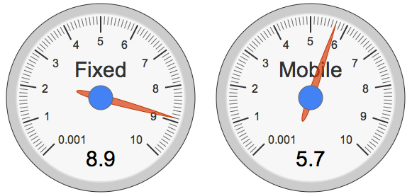
Page views per visit



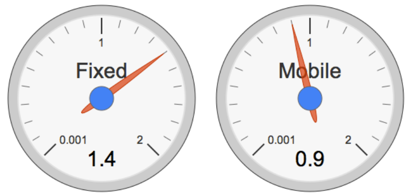
Time per page (seconds)



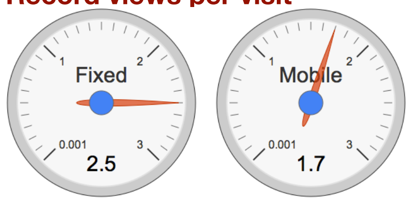
Search page views per visit



Queries per visit



Record views per visit



Visits from mobile devices are much less interactive than those from fixed platforms. Fewer pages are viewed, and fewer searches are conducted. Mobile users spend on average more than twice as long per page,

Key Europeana visit metrics for fixed and mobile users
October 2010 to July 2011 (OneShot users excluded)

CIBER dashboard: mobile platforms compared

Europeana mobile use and users

Duration of visit (seconds)

Search page views per visit

Page views per visit

Queries per visit

Time per page (seconds)

Record views per visit

Compares three popular mobile platforms and shows that the behaviour of users on the go is heavily influenced by the kind of device they use. The limited screen real estate and slowness of the Blackberry is clearly a limiting factor for in-depth research. On the other hand, the tablet iPad generates usage metrics that are not dissimilar from desktops or laptops.

Key Europeana visit metrics for BlackBerry, iPhone and iPad users
October 2010 to July 2011 (OneShot users excluded)

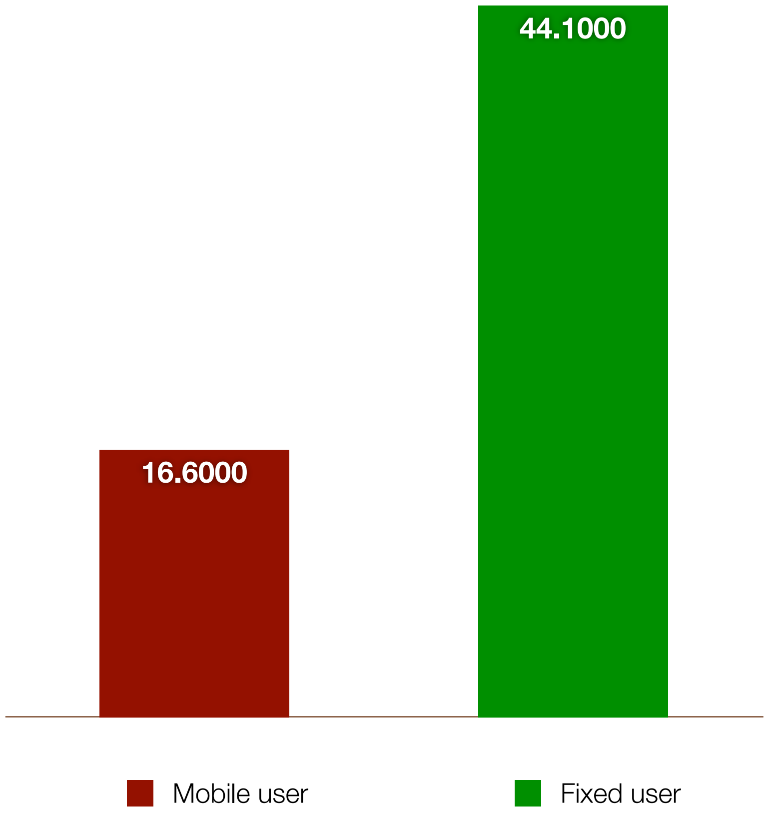
CIBER dashboard: are mobile users satisfied?

Europeana mobile use and users

Can only really nibble away at edges of understanding satisfaction since logs cannot tell us what was the specific purpose, context or motivation that brought someone to Europeana in the first place. But we now have a proxy that suggests very different outcomes for fixed and mobile users: our new clickthrough metric.

A clickthrough involves the viewing of two pages where the user moves from a Europeana record to the collection provider's web site. It is a download in publisher or a 'conversion' in e-commerce terms.

There is a substantial difference in clickthrough rates between fixed and mobile users, as we can see opposite. Europeana's proposed investment in improved mobile interfaces is needed and we expect to see the gap to close considerably once the changes are made.



Clickthrough rates as a % of visits
Fixed and mobile users compared, January to July 2011

Conclusions

Europeana mobile use and users

Mobiles are a very fast growing market segment for Europeana, still small, but it has quadrupled in the past year. The real change for Europeana has not been in smartphones but in tablets. The iPad has achieved a breakthrough making the tablet (big touch-screen, unencumbered by wires or peripheral devices) a popular platform where previous attempts have failed.

It redefines the consumer 'personal computer' experience; in fact it is an 'interweb' access-device rather than a computational machine. It makes apparent the difference between telephone/internet access and PC as office machine (even if office at home). Tablet-oriented interfaces are influencing design of PC interfaces e.g. Gnome3, KDE4. The iPad has shown the way to go and is now being chased by rivals such as Android.

Mobile use is personal use, happens at evenings and weekends; occurs in the home or 'anywhere but the office'. It is about consuming content not creating it. Social networking, courtesy of the mobile, may be creating contacts and networks but it is not content as envisaged by those who suppose 'content is king'

Three years ago Europeana was prescient in considering the mobile user in its development plans. But since then 'Pad' has changed the way we conceive the 'mobile' user. Where once there was a clear difference between mobile and PC the differentiation that is opening up is between Office and Personal. The Office is the desktop and laptop, keyboard and mouse, work and study, documents and organisation. The Personal is 'Pad and 'Phone, touch-sensitive and wireless, conversation and affiliation, in a word mercurial.

Annex

Most intensively used mobile platforms

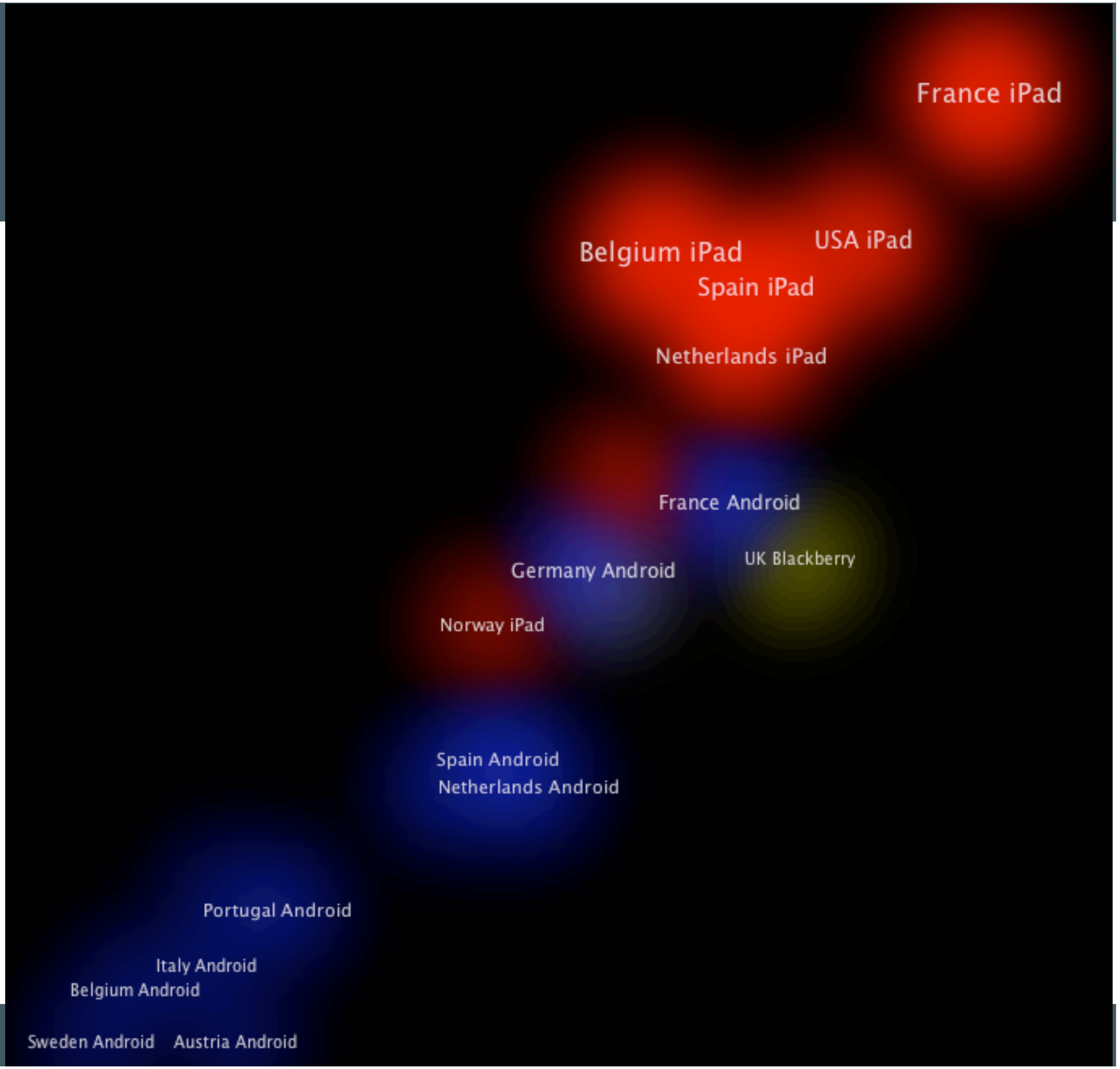
Europeana mobile use and users

This graphic identifies the mobile platforms and countries that make the most intensive use of Europeana.

Intensity of use is defined here as a function of the number of pages viewed (vertical axis) and the time spent online (horizontal axis). The blobs are scaled to the number of individual users and the colours represent the iPad (in red), iPhone (in blue) and Blackberry (in yellow).

Message is very clear: the iPad tablet provides a user experience that encourages longer, deeper sessions in Europeana and this represents a step change in behaviour compared, for example, with Android users.

French iPad users have pulled away from the pack as the largest group and the most intensive consumers of Europeana on the go.



Engagement with Europeana by referral source

Europeana fixed users

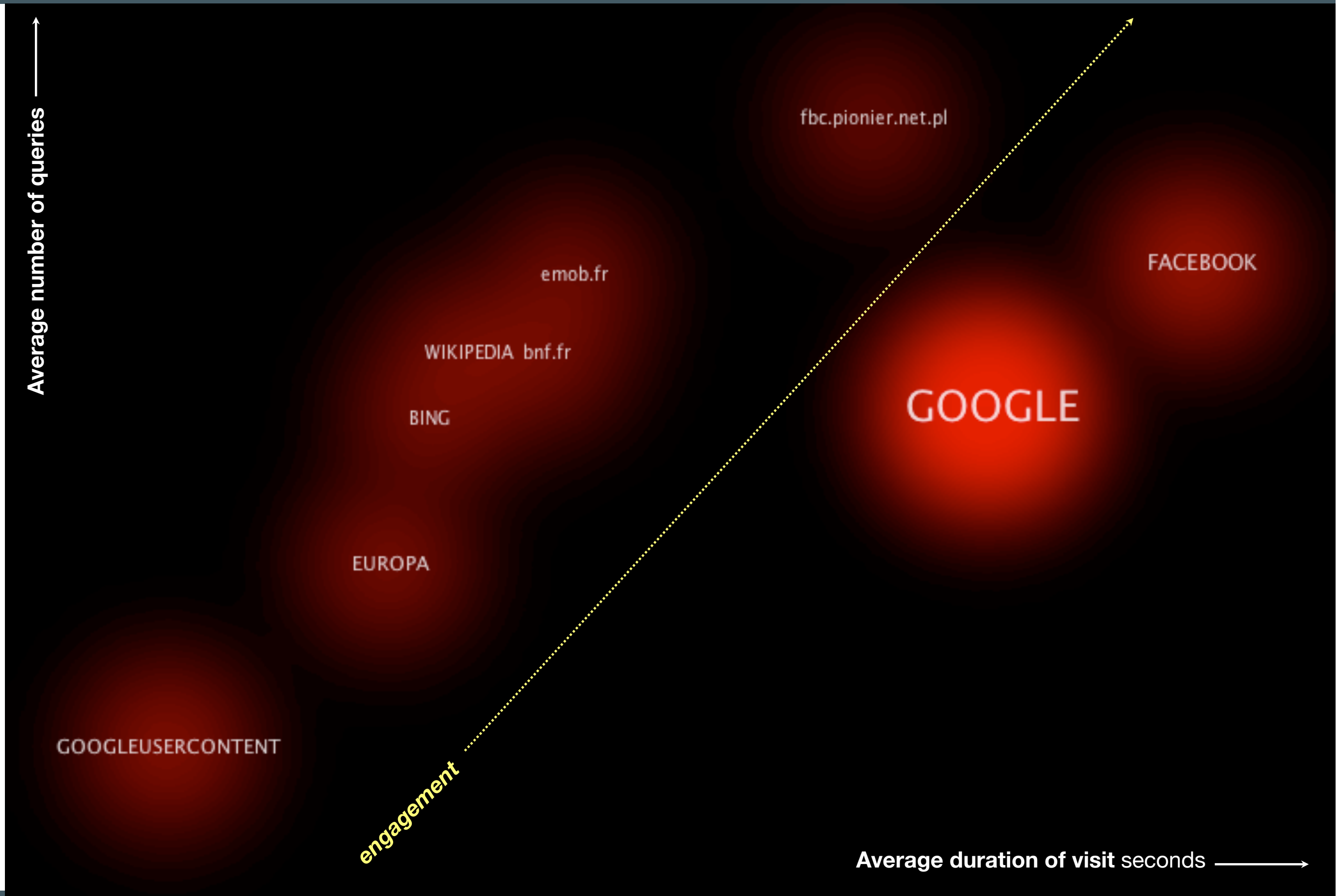
Introduce a new concept: `engagement', by juxtaposing the average duration and number of queries in a visit.

High values for both (top right) highly engaged use.

The text size scales to the volume of traffic. Once we have enough data we shall perform the same analysis for mobile users: early signs are that we do not expect things to be much different.

Referring site delivering the highest level of engagement overall is the Polish PIONIER Consortium, fbc.pionier.pl. Google scores highly and the wisdom of the crowd also seems to provide a highly effective filter for Europeana, with social media such as Facebook and Wikipedia bringing in significant numbers of highly engaged users.

Looking in more detail, we can see that Facebook and emob.fr average around the same number of queries per visit, but visits referred from Facebook are significantly longer.



Average number of queries and visit duration by top 10 known referring site: User category
VOSviewer data visualisation, January 2011 to July 2011 (OneShot users excluded)