



# europaena

connect

Continuing and evolving evaluation the big  
data way

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CIBER and University of Tennessee  
[http://ciber-research.eu/CIBER\\_news.html](http://ciber-research.eu/CIBER_news.html)



*Europeana is an innovative web portal that opens a doorway to the digital resources of Europe's museums, libraries, archives and audio-visual collections. Visitors can discover, share in, re-use and be inspired by the rich diversity of Europe's cultural and scientific heritage.*

It has the potential to revolutionise the way Europeans (and the rest of the world) explore and consume culture. Connecting cultures.

Through 'big data' research methods CIBER are providing a comprehensive analysis of the consumption of European culture by millions of scholars and citizens in Europe and the rest of the world. We have done this for a four year period (2009-2013).

No researchers before have been in a position to map the consumption of culture on such a global, detailed and robust scale. Provides an evidence base which will test many of our assumptions about how culture, especially digital culture, is consumed.

Europeana - Homepage - Mozilla Firefox


File Edit View History Bookmarks Tools Help

Europeana - Homepage

www.europeana.eu/portal/

☆ europeana

Home My Europeana Choose a language



europeana  
think culture

Search


Search

Help

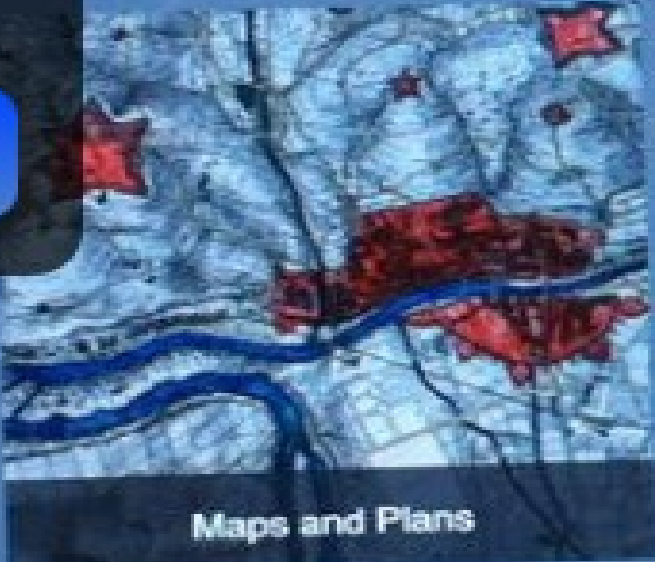
# Europeana Open Culture app

Our first free iPad app introduces you to specially selected collections from Europeana - explore, share and comment on them.


Download




Search with a selection of Europeana's collections





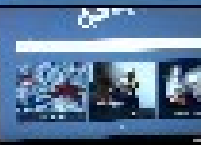
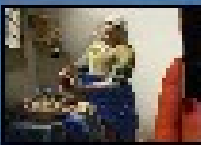
Maps and Plans



Treasures of Art





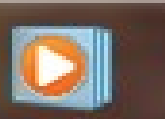




Treasures of the Past










#AllezCulture

From the blog



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20/06/2013

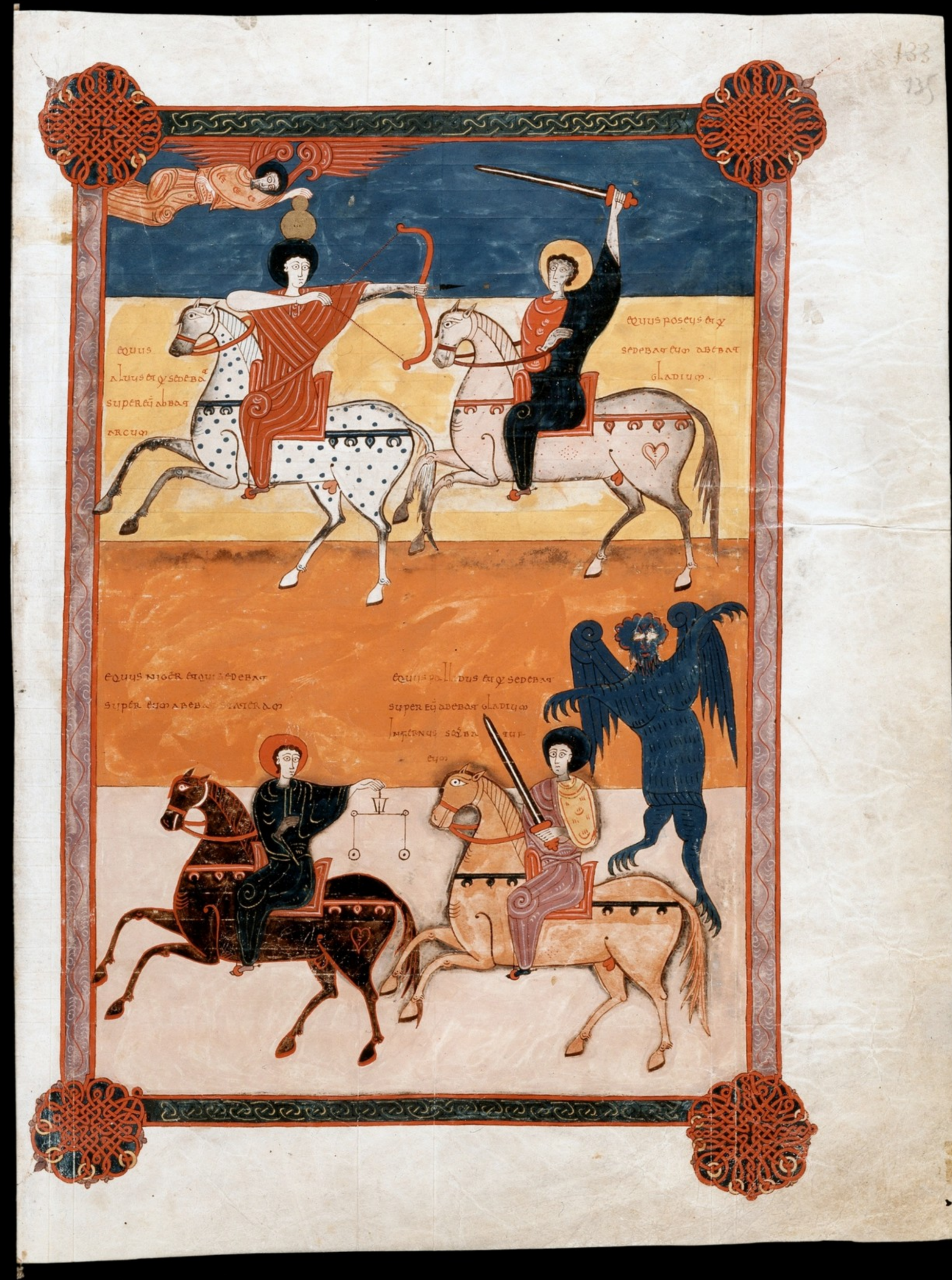


## Background: multi-lingual and multi-media

- Launched in 2008
- French answer to Google but since then the Germans and Google have taken over
- Multilingual access to 26 million European cultural objects, 2200 institutions from 34 countries.
- Web portal/search engine but has aspirations beyond that; digital economy, online exhibitions and crowd sourcing experiments (WW 1)
- Using other channels to distribute their content, most notably (and ironically) Google, Wikipedia, Facebook etc.

### **Re-use**

- 5 million users currently





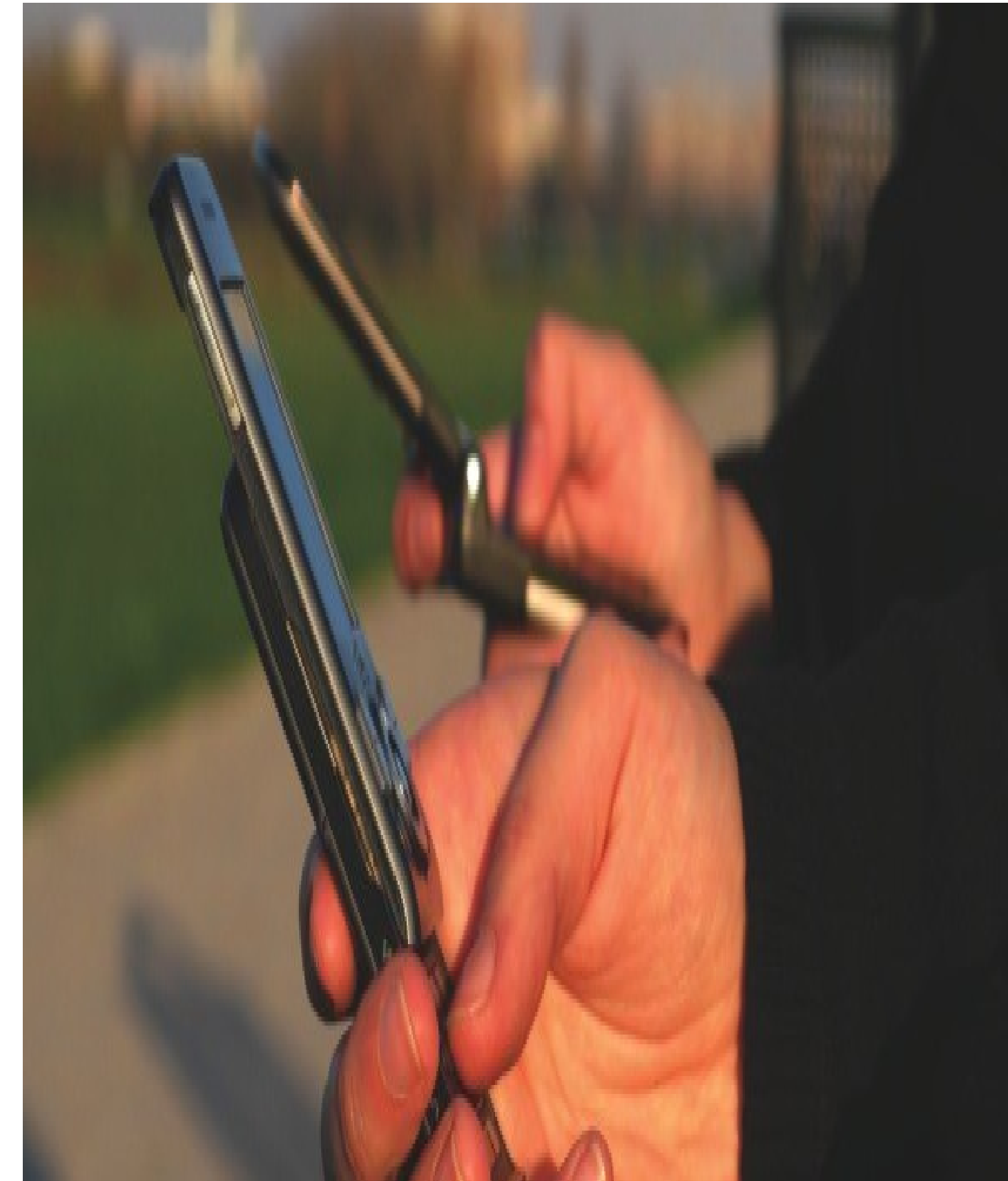
# The methodology



- Deep log analysis (HTTP access) enhanced by ClickStream logs and Google Analytics.
- Deep log transforms **activity data** found in logs into **information seeking and usage behaviour**; then transforms that data into **user behaviour** by relating it to demographic data, and finally turns the resultant data into **outcome data**, enabling satisfaction and success to be established.
- Deep log data analysis offers the following benefits:
  - Record of what people actually did online; not what they said they did, thought they did, or hoped they would do;
  - No sampling
  - Non-intrusive
  - Massive reach: **200 million** plus page views made by **8 million** unique visitors every day for four years. **We have come a long way methodologically speaking**

# Case study: second digital transition to the mobile space

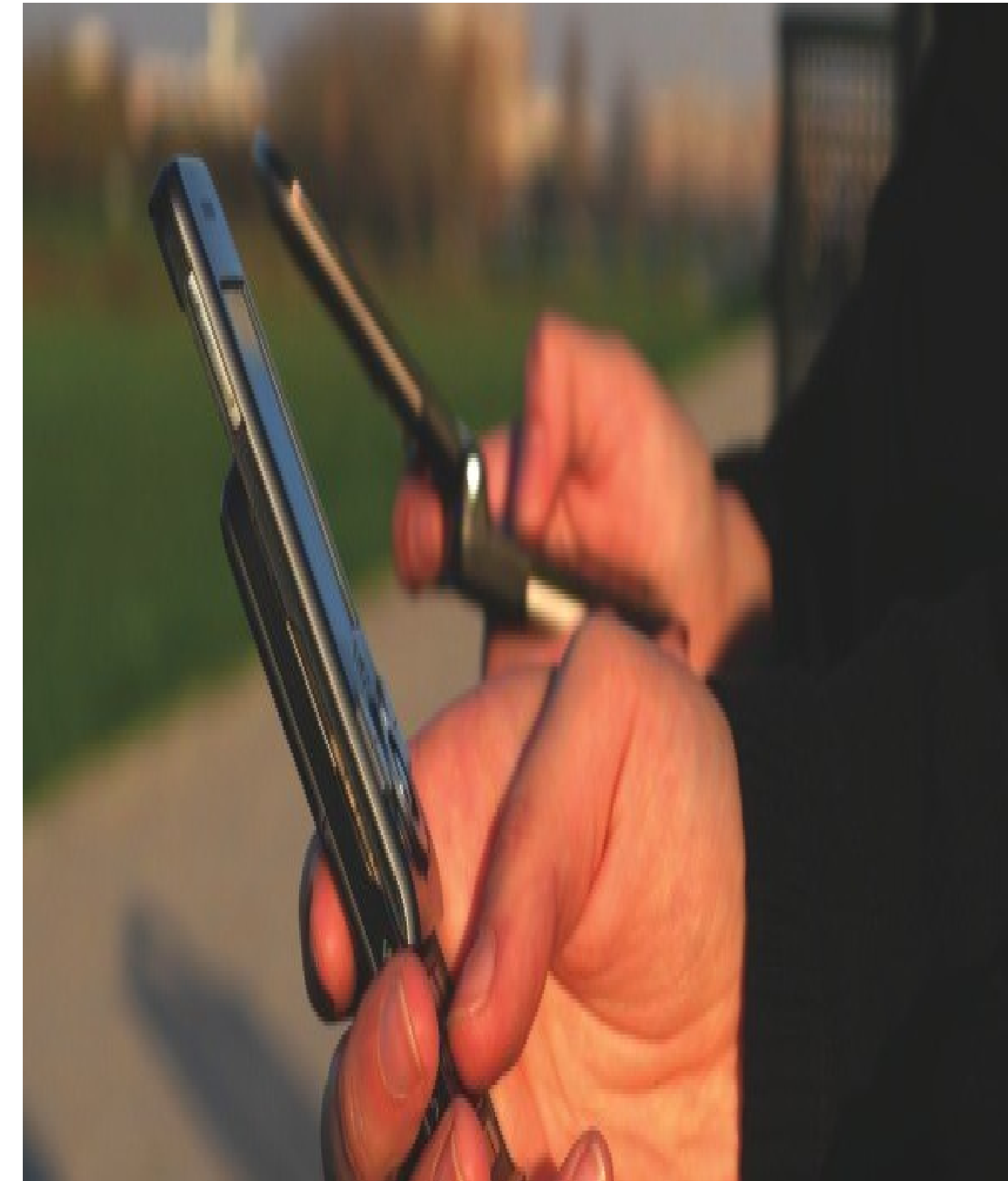
- Next year the platform of choice for accessing Web;
- Info. behaviour no longer mediated/conditioned by office or library, but by street, coffee shop, home; by social norms. Usage moved environments and time-shifted too;
- Meet information needs at time of need, rather than store until reach office or library. More needs met; not forgotten or overwritten by another need;
- While library Big deals gave fantastic access to information to a privileged few, mobile gives access to masses of information to everyone and anywhere; and open access publishing increasing the haul;
- Social media devices - stride the informal & formal domains;
- Intrinsic part of the digital consumer purchasing process. Might expect more pay per views;
- Problems of definition (smartphones, tablets): tethered/fixed



# Case study: second digital transition to the mobile space (cont.)



- Appear to trust the mobile more than other forms of information & communication technology
- Limited real estate; simplified interfaces
- Ask a young person (and growing numbers of not so young) about their library and they will point to smartphone or tablet.
- Europeana, with one eye on a strategic market, tourists, who are interested in culture and benefit from information on the go, and the other eye on Google Generation started thinking mobile back in 2011
- Been successful and have 155,000 mobile visitors, and numbers increasing five times faster than PCs . Their behaviour is the subject of this talk. **Is it different?** Compare them with PC or 'fixed' users.

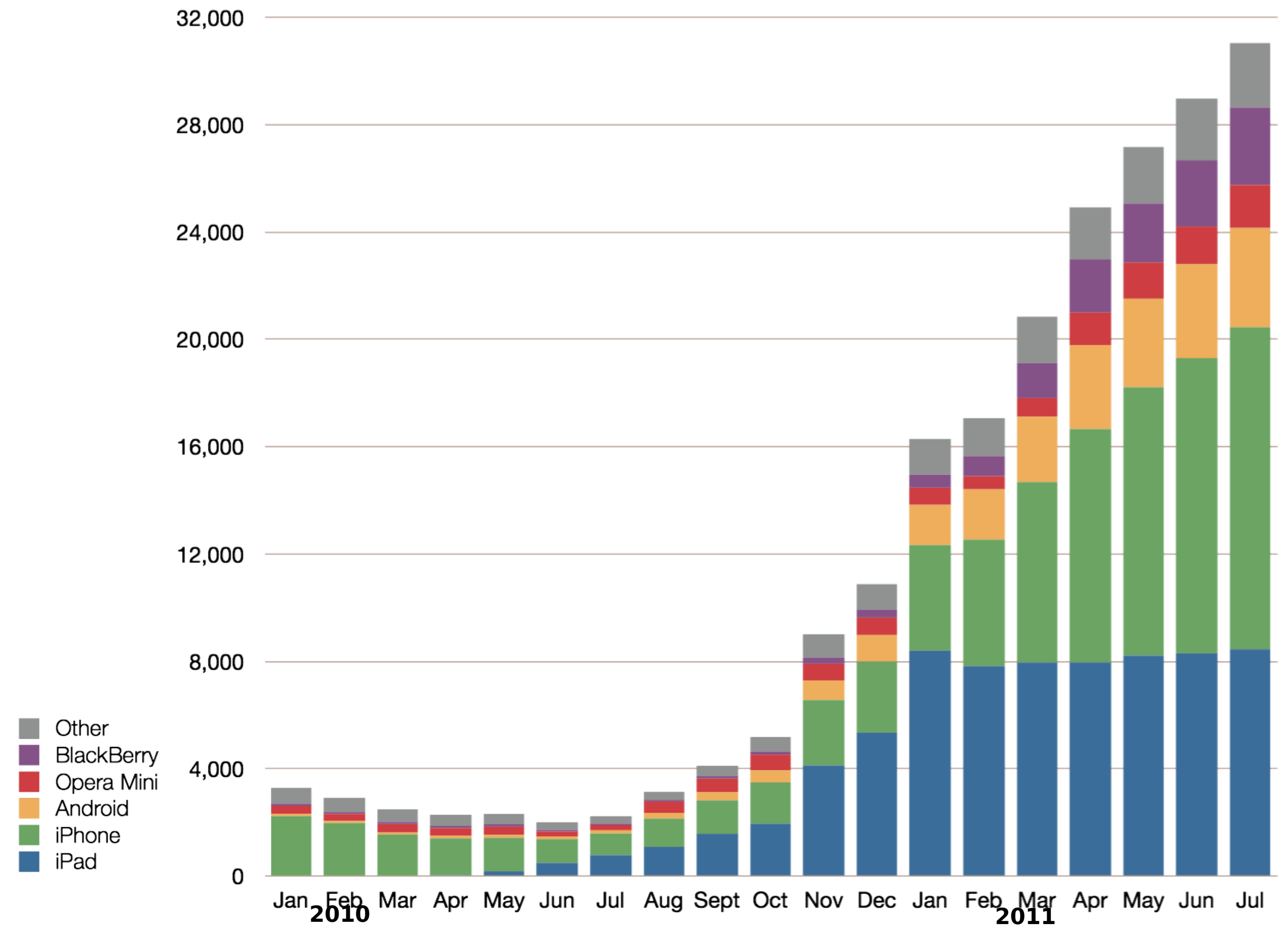


# Growth in Europeana mobile use



Shows monthly numbers of page views and exceptionally rapid period of growth following SEO (Nov 2011)

From August 2010 to July 2011, page views from mobile devices grew at a rate than four times greater than from fixed devices, with the fastest growth coming from the iPhone (green column).





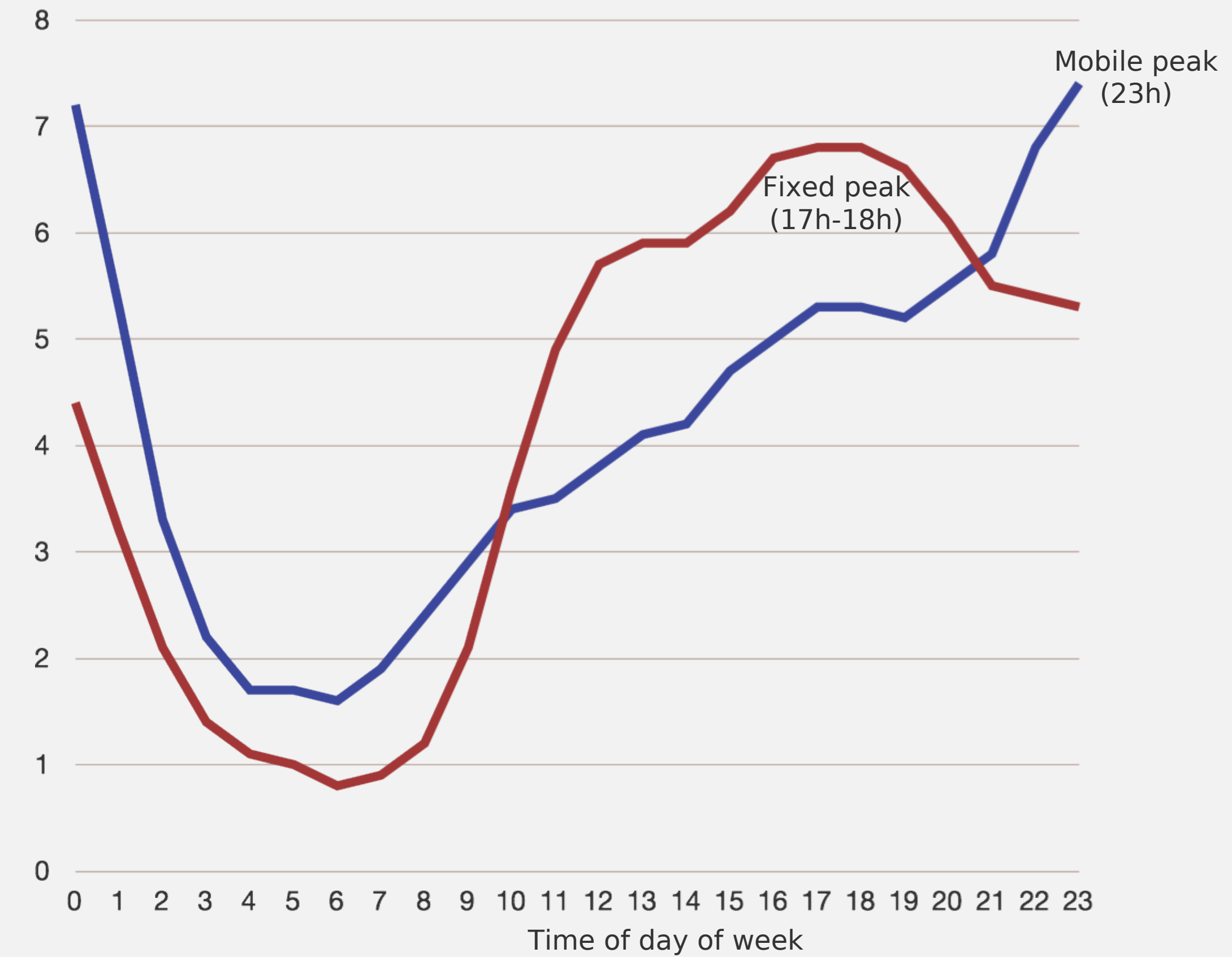
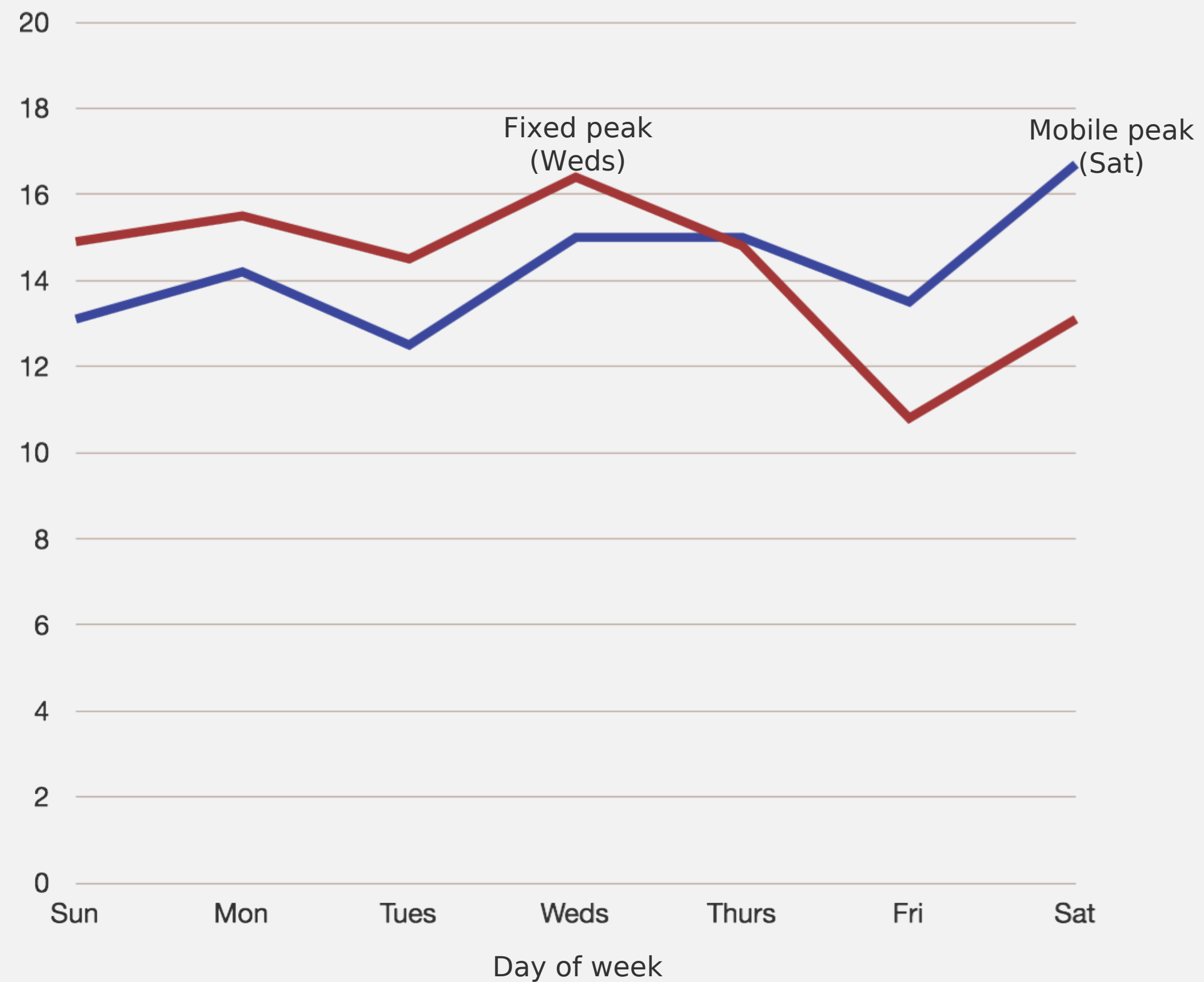
# Referrals and social media (where does usage come from?)



- 70% of the 4.5M visits to Europeana in 2012 were search referrals, nearly all (97%) from Google.
- Just 1% of all visits to the site were social referrals.
- Dominant network Facebook with nearly 30,000 referrals a year. Followed by WordPress, nearly 9000 referrals, Blogger (over 4200), Twitter (3300) and Netvibes (2000).
- Overall doubling of traffic on the site not matched by a corresponding growth in social referrals year on year: Facebook and only small increases. Only WordPress, showing good growth (162%)
- Twitter interesting case because dwell time has doubled. The average for Twitter was 2.5 minutes in autumn 2011, 5 minutes in 2012. More engaged?



# When is Europeana used?





## Which countries top the list for mobile use of Europeana? Jun – Dec 2012

Country	Total	% of total
Germany	74,036	9.9
USA	63,337	8.5
Netherlands	60,320	8.1
France	53,071	7.1
UK	50,343	6.8
Spain	47,292	6.4
Norway	42,135	5.7
Italy	39,914	5.4
Sweden	25,557	3.4
Denmark	17,009	2.3
All 'Mobile'	744,686	100
% Mobile	4.18%	
All Users	17,819,822	

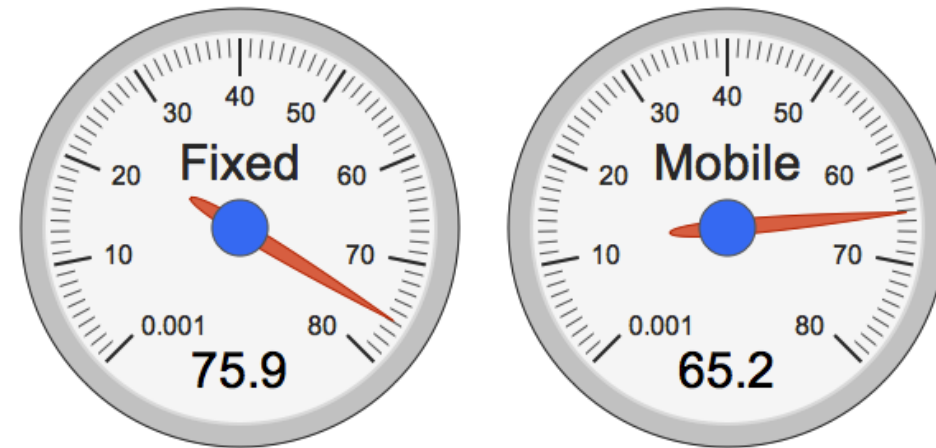
## Which types of mobile device do Europeana visitors use? Page views. June – Dec 2012

Device	Total	% of total
iPad	351,855	47.2
Android	169,018	22.7
iPhone	161,358	21.7
Opera Mini	25,844	3.5
Other mobile	16,730	2.2
BlackBerry	9,166	1.2
Windows	4,274	0.6
Symbian	3,727	0.5
Opera	2,714	0.4
All 'Mobile'	744,686	100
% Mobile	4.18%	
All Users	17,819,809	

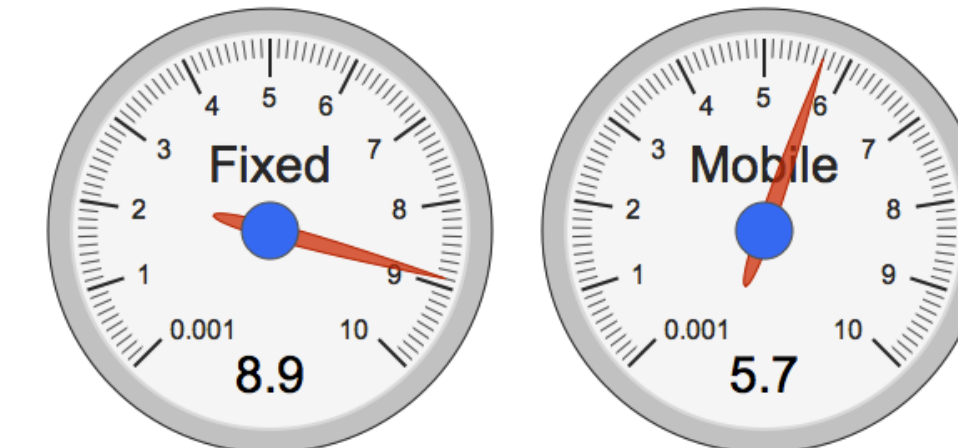


# CIBER dashboard: fixed and mobile users compared

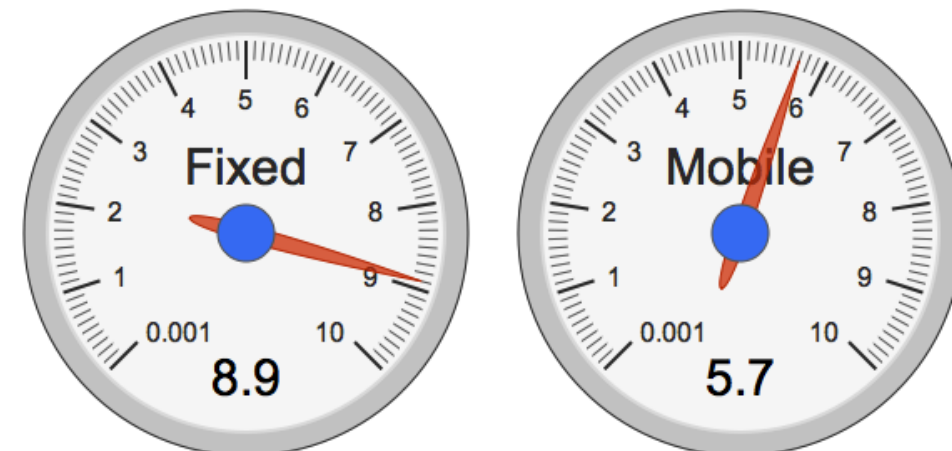
**Duration of visit (seconds)**



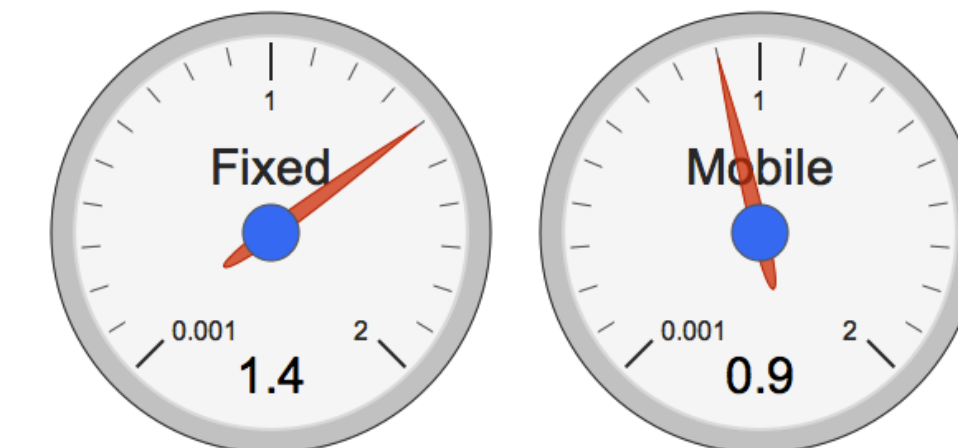
**Search page views per visit**



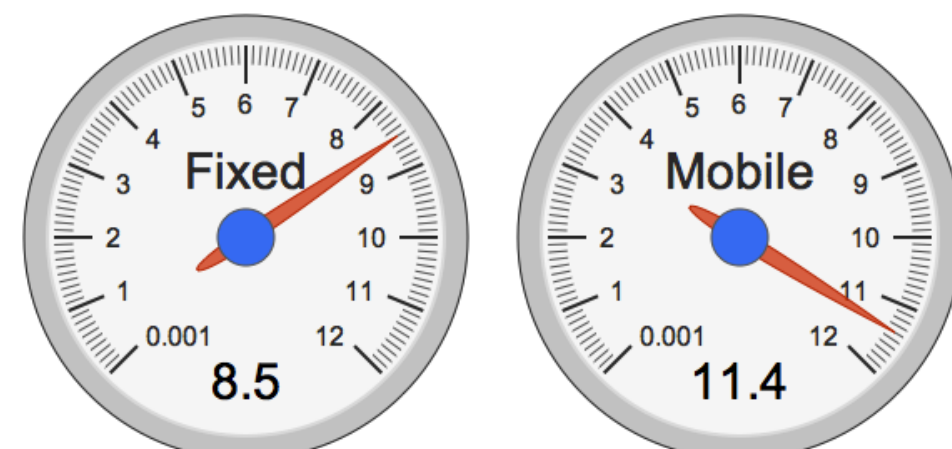
**Page views per visit**



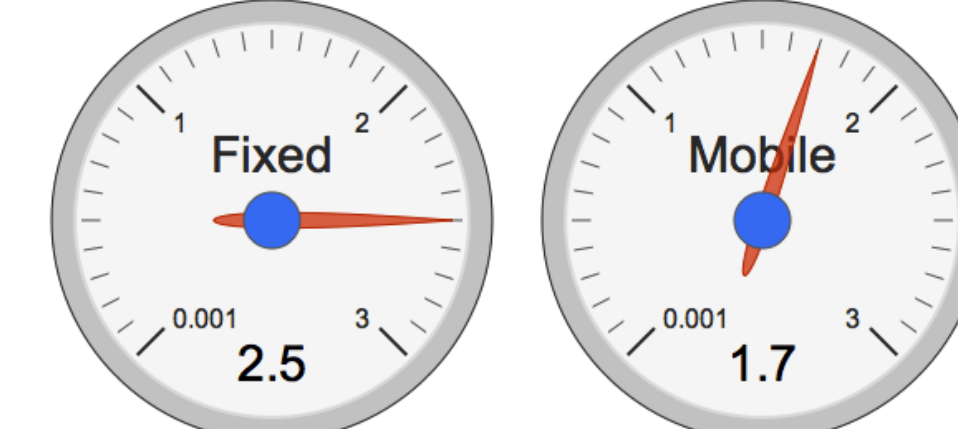
**Queries per visit**



**Time per page (seconds)**



**Record views per visit**





# CIBER dashboard: mobile platforms compared

**Duration of visit (seconds)**



**Search page views per visit**



**Page views per visit**



**Queries per visit**



**Time per page (seconds)**



**Record views per visit**





# Multi-media

- What do users plump for when searching the multi-media gateway?
- Clearly images; well over three quarters of views to images and yet just over half the database consists of images. Videos also punch more than their weight – representation 1% and usage over 2%
- Text not very popular – people go online to avoid reading!
- Important differences by platform: text most viewed on iPad and images most viewed on android phones

COVERAGE			USAGE			
			Desktop	iPad	iPhone	Android
<b>ALL</b>	20,163,672	100%	100%	100%	100%	100%
<b>IMAGE</b>	10,982,303	54%	78	71	79	84
<b>SOUND</b>	446,938	2%	1	0	0	0
<b>TEXT</b>	8,293,361	41%	20	25	17	12
<b>VIDEO</b>	165,523	1%	2	4	4	4
<b>3D</b>	23	<1%	0	0	0	0

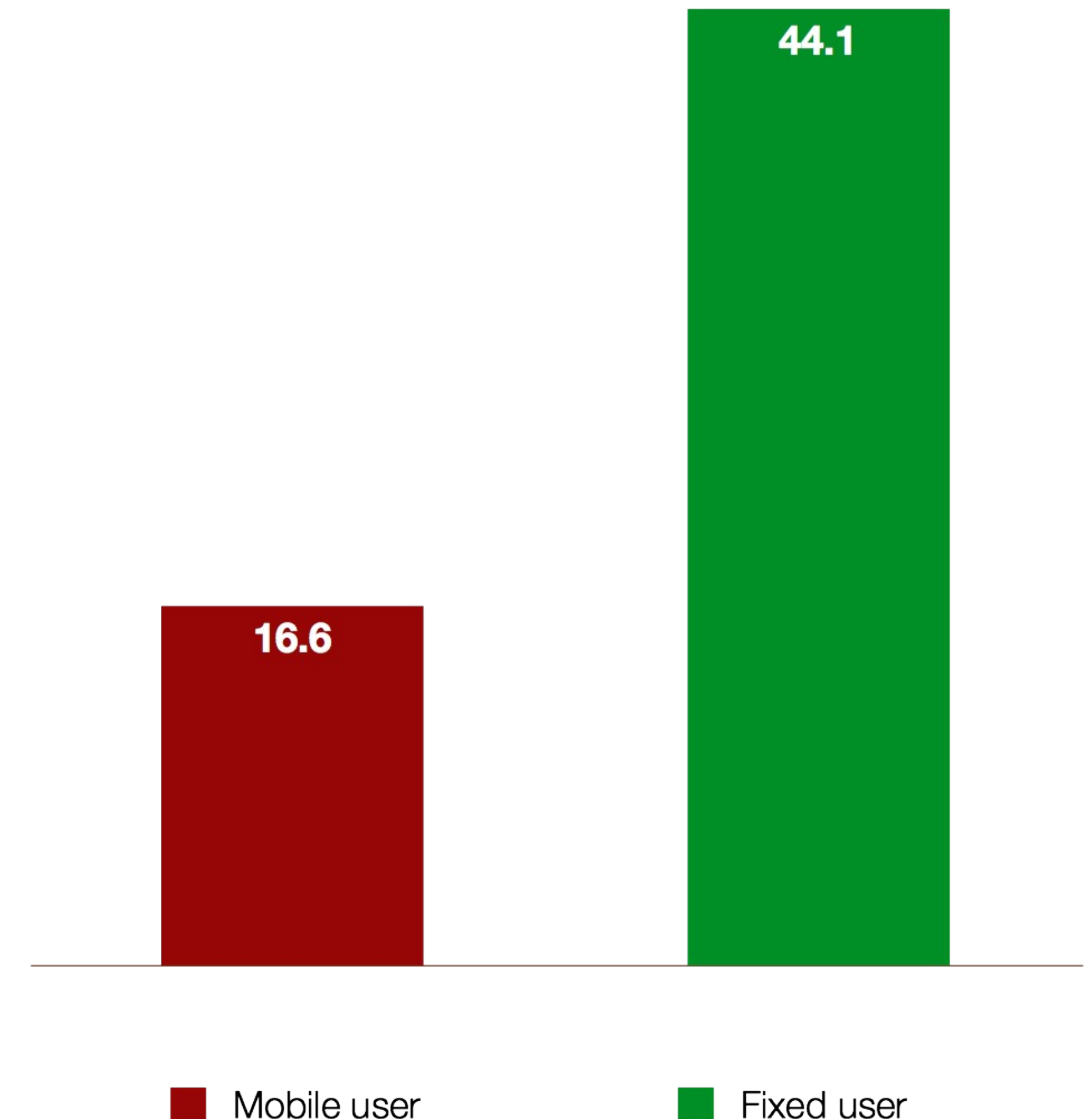
# CIBER dashboard: are mobile users satisfied and loyal?



A click-through 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. Satisfaction proxy.

For fixed users, 44 per cent of page views lead to a redirect to a content provider but for mobile users, click through rate is just under 17 per cent

Less likely to return. 84% of mobile users made just a single visit. This compares to a figure of 73% for fixed users.





# Conclusions and implications

- Mobile use **personal use**, happens in evenings and weekends; occurs in home or 'anywhere but the office'. It is about consuming content not creating it.
- Fast food analogy: mobiles ultimate **information take-away**: more bouncing, more new visits, fewer repeat visits, shorter visits and simple and less productive searching are a feature of their use.
- Given differences are **publishers** ringing the changes on their websites? Few look like Europeana (simplicity and visuals). Look like they were designed for people doing their searching in libraries, enjoying fruits of Big Deal. Opportunities for pay-as-you-go are there but charging too much for an article - evident in mobile marketplace.
- A bigger challenge for **librarians**. Library's information universe increased less than everyone else's. Scholars' information horizons once bound by the library but not anymore. Libraries increasingly seen as *incomplete* sources of information and researchers do not trust librarians to make the critical decisions on what is and what is not in walled garden.

