

Information seeking behaviour and usage in the digital world

Introduction

- Talk based on robust evidence-base of what people *do* in the digital space and not what they *say* they did or *wished* they did. People have problems recalling what they did in digital space.
- Need methodology, a non-intrusive one, to study behaviour in anonymous, remote virtual space. CIBER obtain data from millions of digital footprints people leave when visiting a website/using a digital service, via mobile, laptop, personal computer and digital television.
- Been making sense of these footprints for ten years in media, education, publishing, health and, most recently, in cultural field (Europeana). But policy makers not taking notice
- Know exactly what information seeking and reading behaviour of millions of people looks like and will describe key characteristics in this paper.
- Data points to fact that information behaviour has fundamentally changed as a result of disintermediation and migration to virtual space and . Or we got it wrong in the first place!
- Let us have a look at the key characteristics...

Lots of activity, loads of noise and much of it robotic

Absolutely staggering volumes of activity – 2 billion scholarly article downloads, for instance

Access and disintermediation the main driver

More drawn into information net (all scholars, researchers, journalists and librarians now!). All attached to the big fat information pipe

Existing users search more freely & flexibly. – 24/7 anywhere

Huge Growth. 40-60% annual increase in scholarly publishing alone:

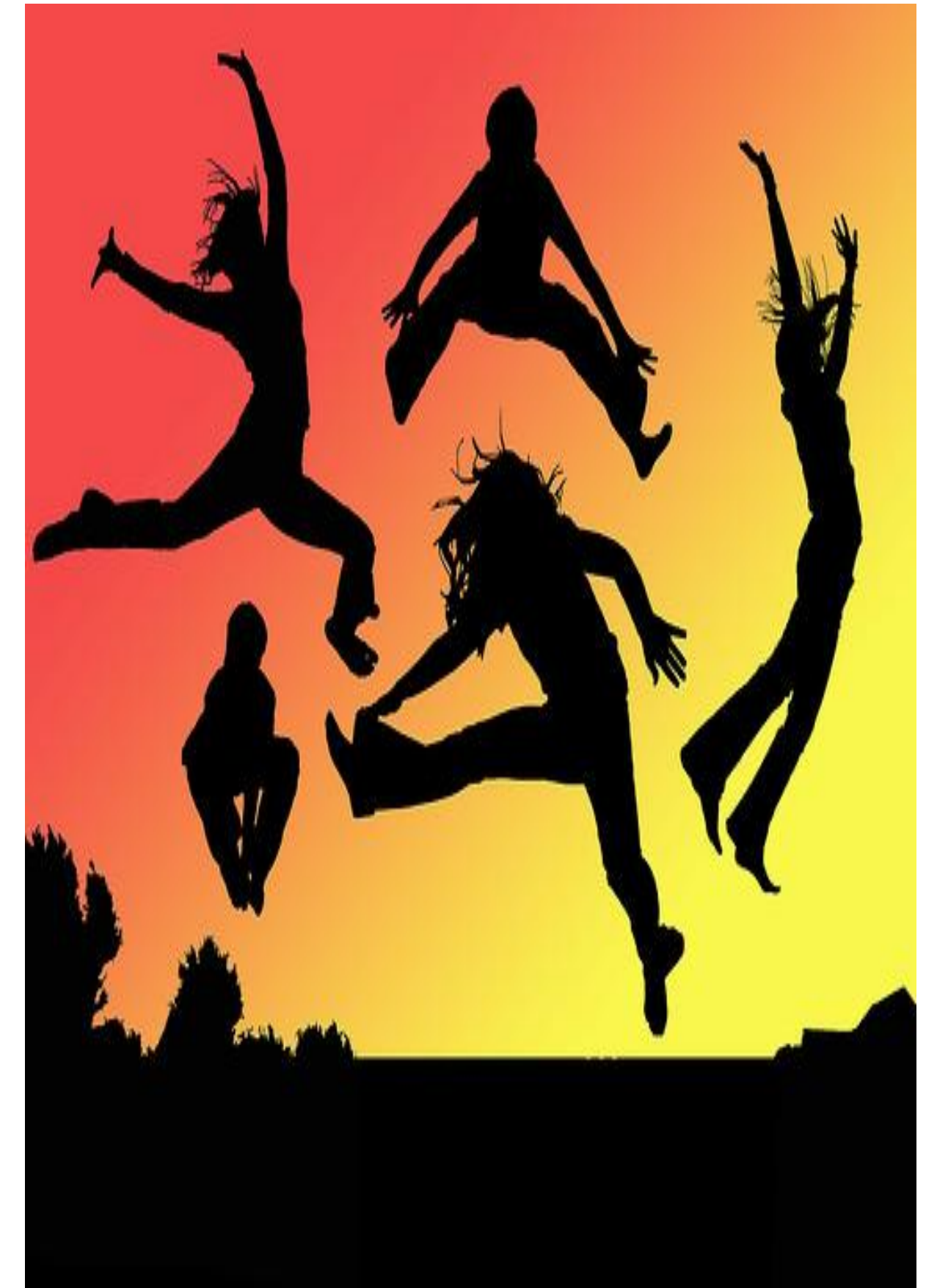
a) more digitization; b) preference for everything digital; c) wireless/broadband; d) mobile devices ; e) India and China

However, lots of 'noise', *robots* account for 80-90% of all activity.
Robots the new intermediaries?



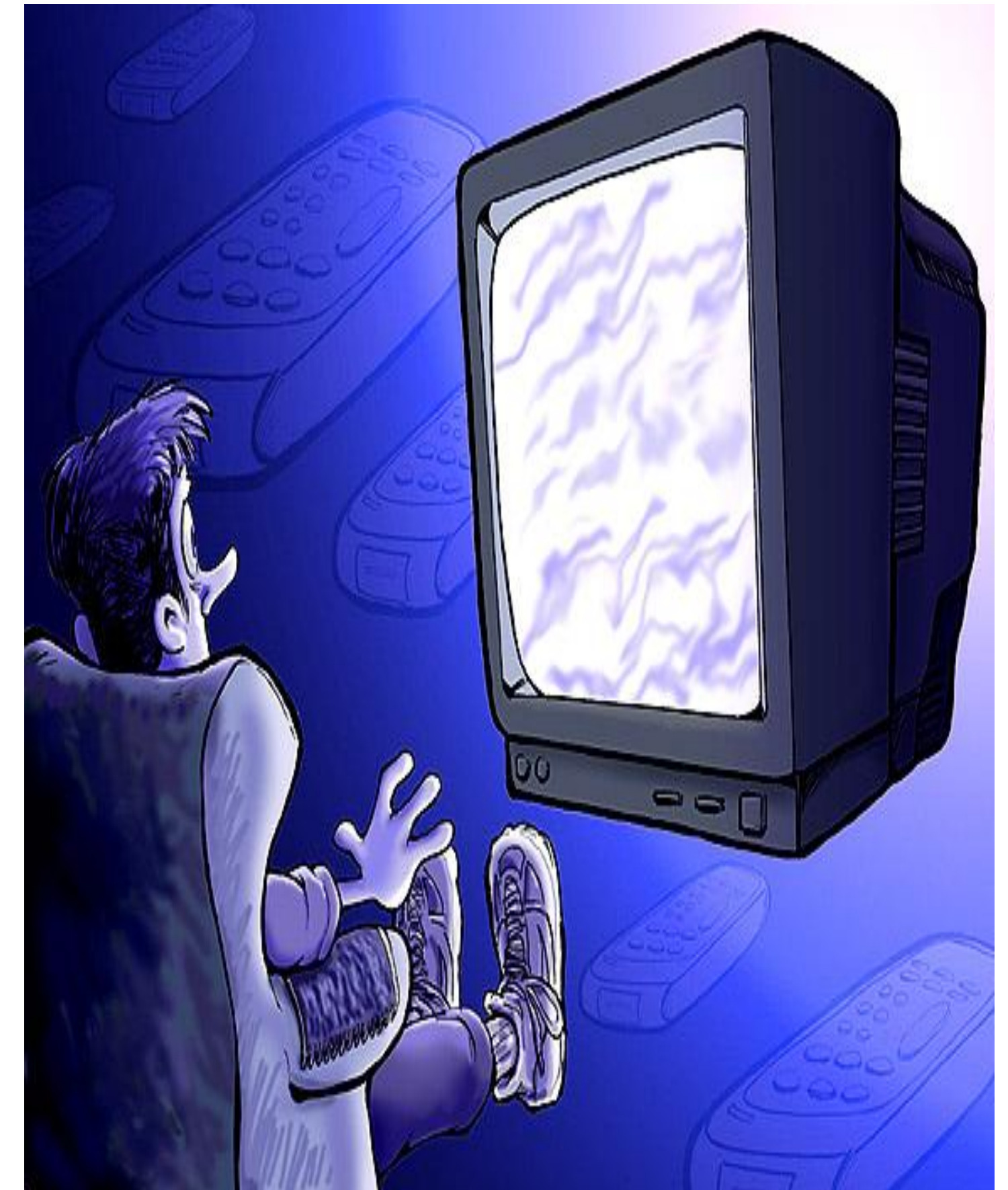
Bouncing the predominate human behaviour

- Most people view only 1 page from the thousands available; 3 is a lot
- Around 40% do not come back
- 'One-shots' abound
- Young people bounce the most
- Bounce because of:
 - search engine searching and links
 - massive and changing choice
 - an 'acceptance of failure' - pragmatism, shortage of time & overload
 - poor retrieval skills (2.3 words) – what do you expect?
 - leave memories in cyberspace, which adds to 'churn' rate
 - direct result of end-user checking, in absence of intermediaries we have become addicted cross comparison
 - there is so much rubbish out there



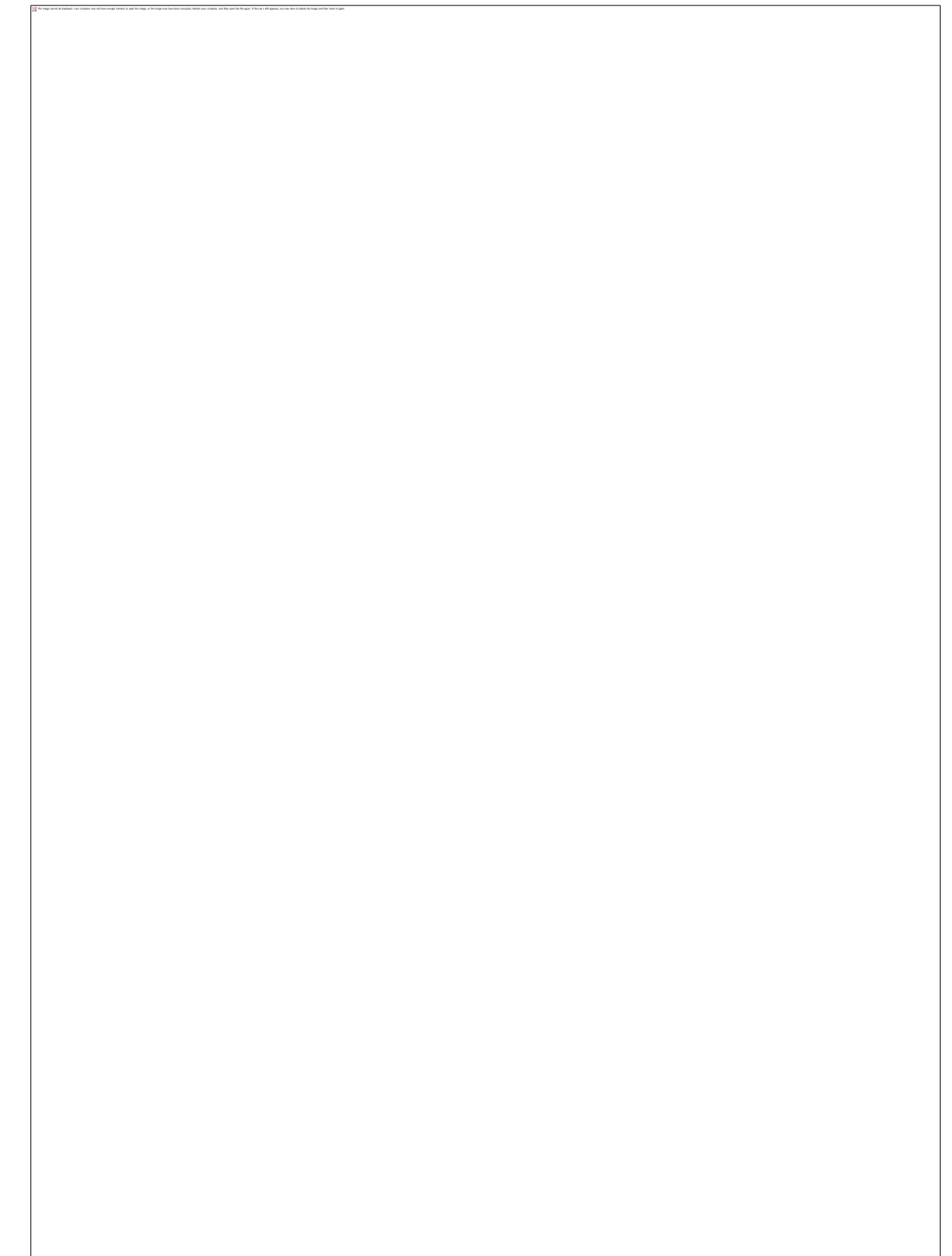
Which means the horizontal has replaced the vertical...

- In information seeking terms the horizontal has replaced the vertical: skittering (move rapidly along a surface, usually with frequent light contacts or changes of direction)
- People drive-thru titles, headings, contents pages & summaries at a fast rate and its pleasurable. Charge for abstracts and give away PDFs!
- Creation of new digital motorways through content means movement itself is highly desirable and interesting



a. and the snack has replaced the three course meal

- Been conditioned by emailing, text messaging, tweeting and PowerPoint to like/produce/want fast information
- And then there is multi-tasking
- Deep divers; 'fast bag pick-up' the gold standard
- Avoid carefully-crafted discovery systems. Love Google



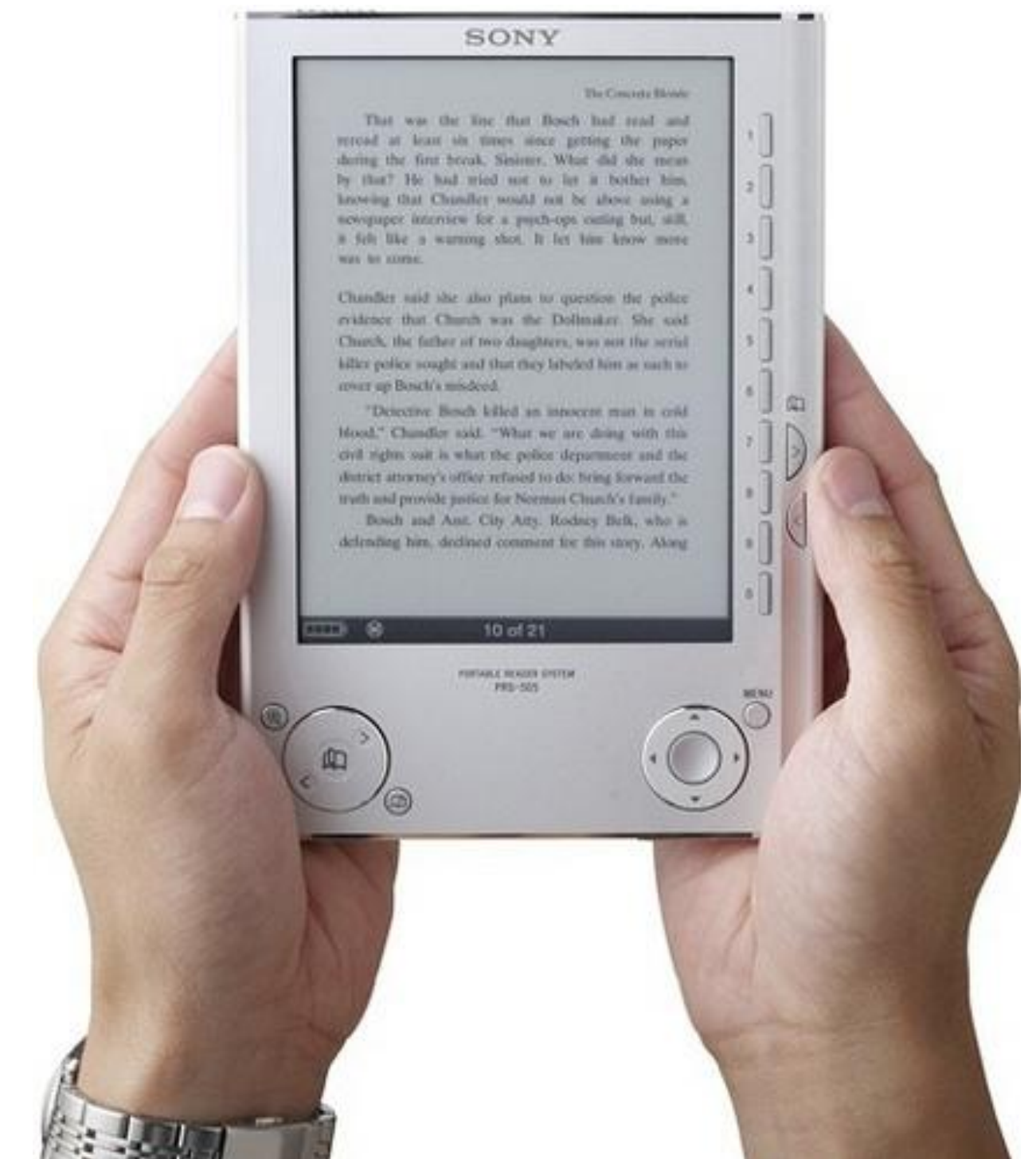
...and viewing has replaced reading...

No shock then nobody in this environment does much reading or certainly not what is traditionally thought to be reading

Yet web designers & content providers thought we would all dwell

Logs tell us:

- a) Typically, only a few minutes spent on a visit, and 15 minutes a very long time to stay;
- b) If it is an article then they spend about 3 minutes on it;
- c) Short articles have much bigger chance of being viewed;
- d) If article long summary will be read or it will be downloaded -squirreled away for another day. Digital osmosis.



The smart phone is going to take it all to another level

Massively popular: and forecasted to be *the* platform of choice in a few years

Cool and social. Extend reach of websites and draw in wider range of people

Considerably **widens access** to weekends and outside of traditional office hours.

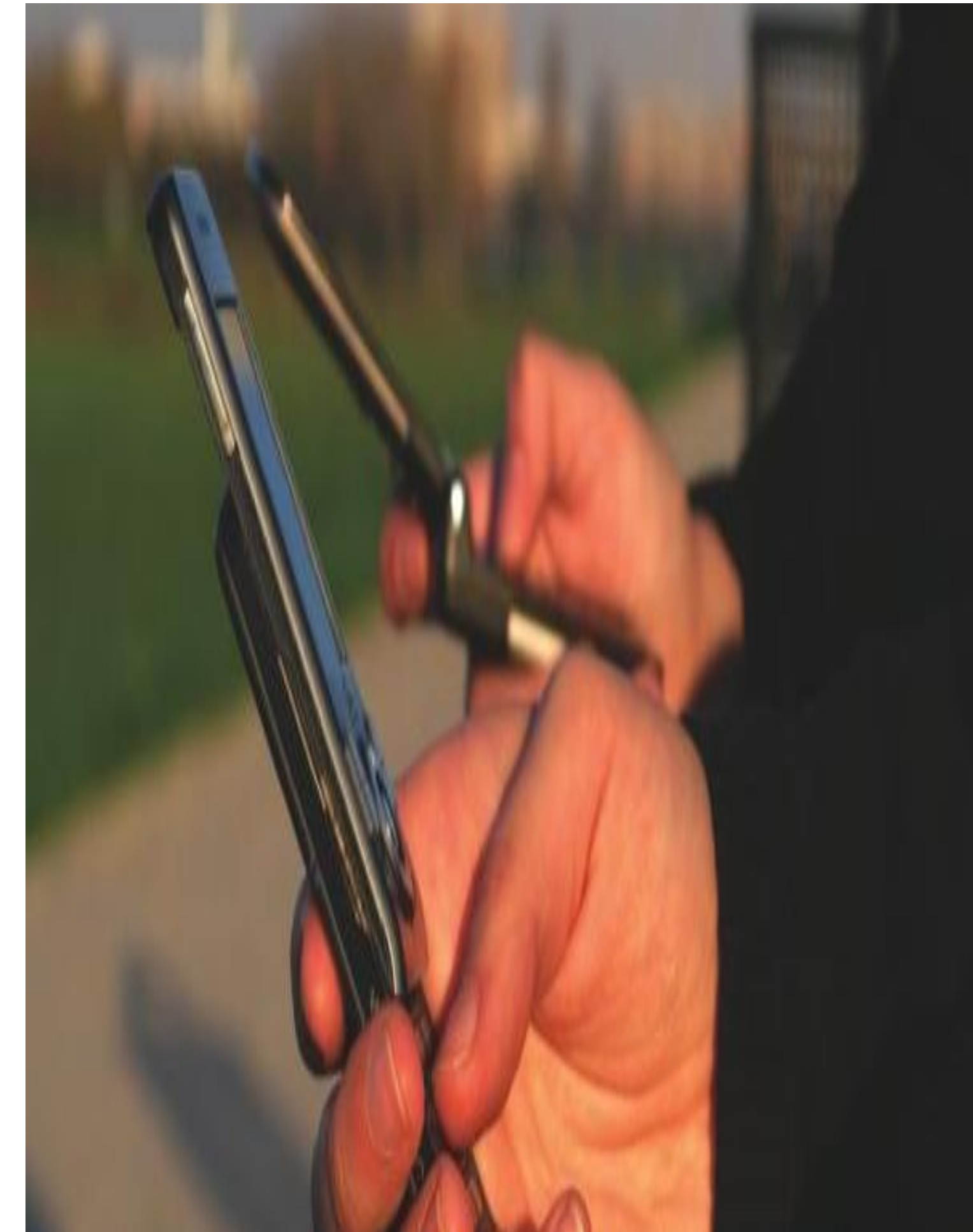
No boundaries. Search on the move, virtually anywhere and at any time – and in the social space

Restricted functionality. Mobile user presented with a simplified ‘lite’ interface, without some of the search functionality available to the PC user

Not all the same. Big difference between tablets, smart phones and BlackBerrys

The big question. Clearly then web use via mobile phone & tablet offers a different user experience from the desk-bound PC so will have an impact on information use and seeking behaviour

Ask a **young person** about their library and they will point to their phone

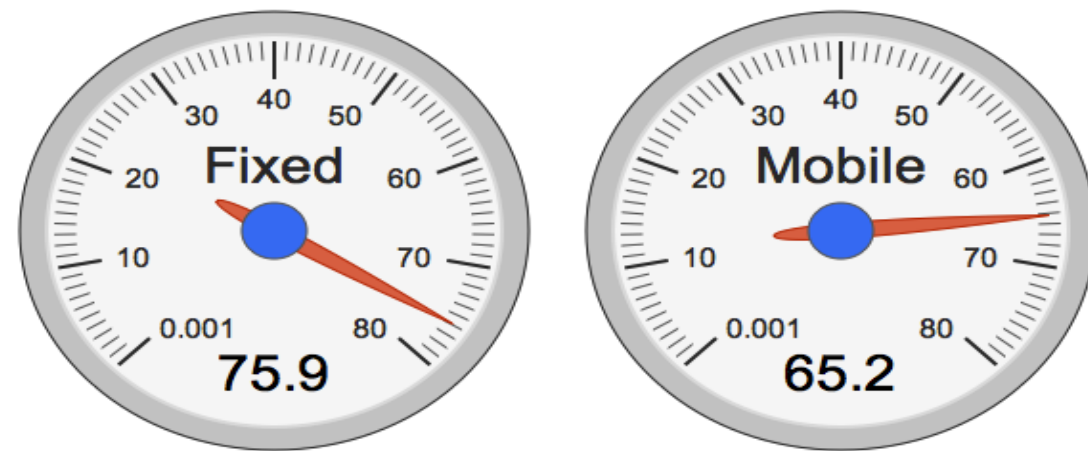


CIBER dashboard: fixed and mobile users compared

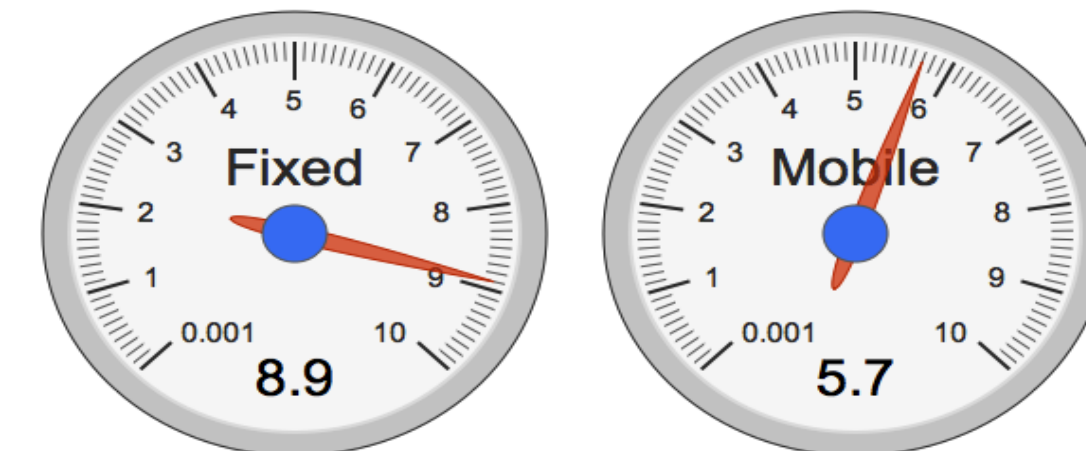
Fast is the future



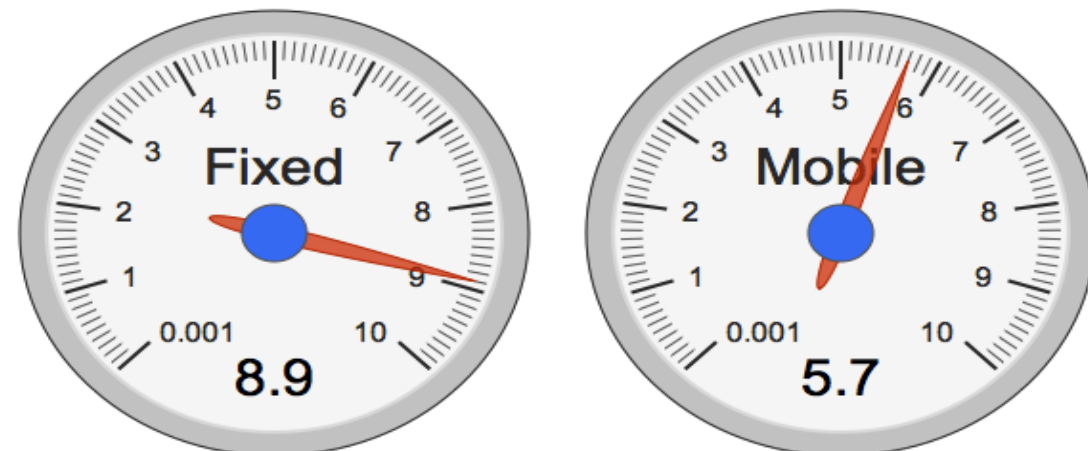
Duration of visit (seconds)



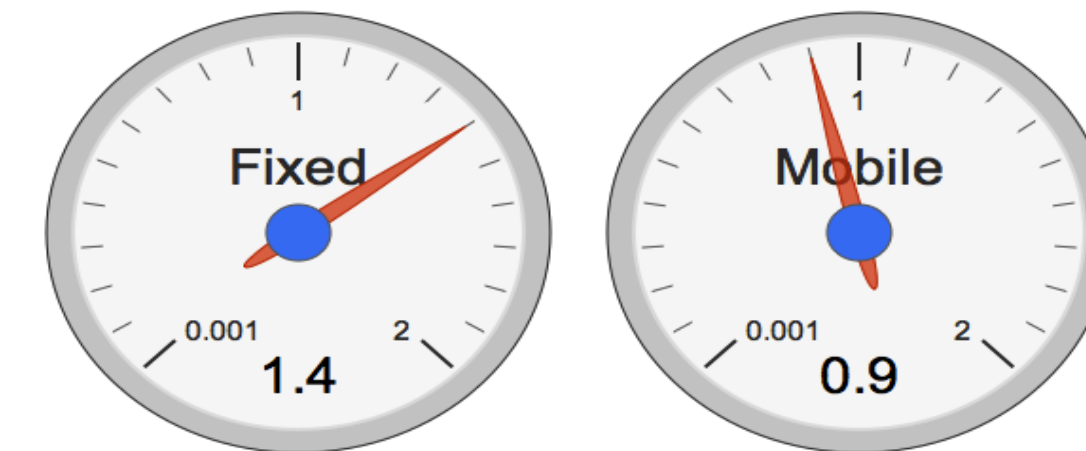
Search page views per visit



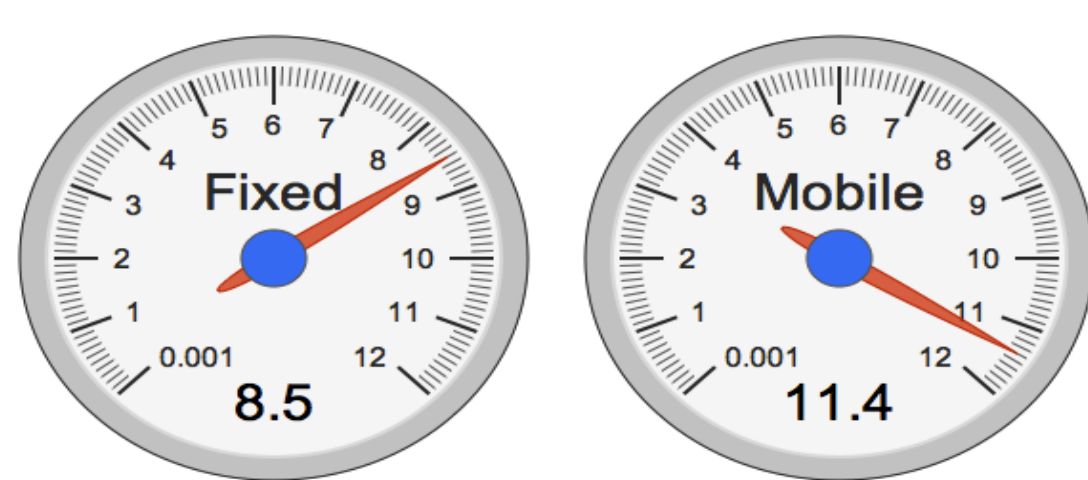
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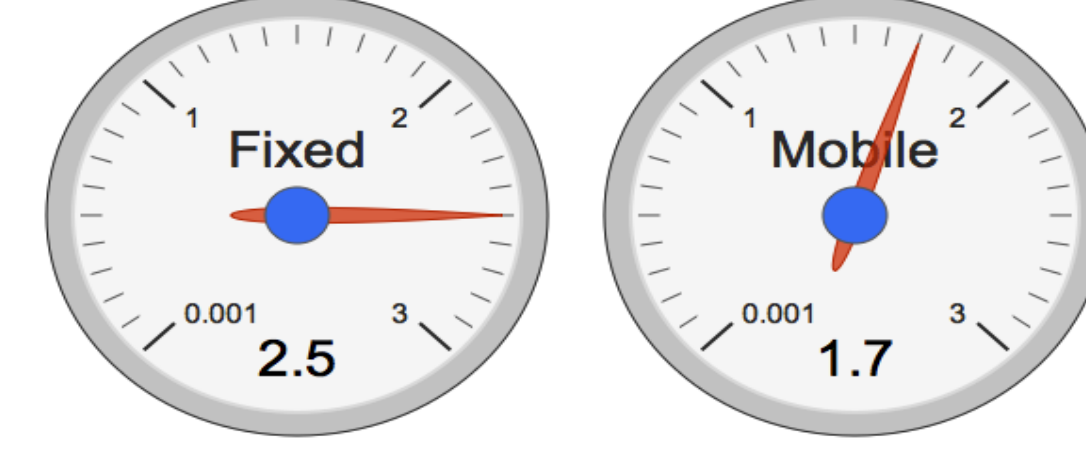
Queries per visit



Time per page (seconds)



Record views per visit



Visits from mobile devices 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, but only to be expected given the relatively slow performance of these devices.

Trust and authority in the virtual space

Difficult in cyberspace: responsibility/authority almost impossible to establish in digital environment – so many players and brands, and so much churn

Also what you think is brand is not what people think. Younger they are less likely to recognise traditional brands. Tesco!



And then there is...the Google Generation

- Those born digital, been conditioned since birth, are those with greatest appetite for fast information and skittering.
- Quickest searchers, spend least amount of time on a question – a fraction of the time spent by adults. By own admission, the least confident about their answers. Lack of confidence explained by their behaviour – view fewer pages and domains and undertake fewer searches in answering questions.
- Search statements much closer textually to the questions posed, making them, not just fast food generation, but also `cut and paste' generation. As for multitasking, which anecdote has it young excel, they do it a lot but not very well.
- Young fast forwarded from a world where the focus was on knowing one big thing really well to a world where you know many things, but not very well.



Big issues

- Propensity to rush, rely on point-and-click, first-up-on-Google answers, along with unwillingness to wrestle with uncertainties and an inability to digest and evaluate information, keeps young especially stuck on the surface of 'information age'; not fully benefiting from information society and 'always on' information/reading
- Skittering has negative consequences for fundamental skills. Brain rewards for finding information. Skittering chipping away at capacity to concentrate & contemplate which leads to reading problems. Speculation that digital makes us stupid – even damaging the brain!
- Consequences that result from what is absent from increasing numbers of digital users, especially the born digital - lack of a mental map, no sense of what a collection is and poor idea of determining what is good, relevant and true
- Writing been on wall for years about diminution of reading but lulled into complacency by sheer amount of 'activity' taking place in cyberspace.



Big issues

- McLuhan's universe of linear exposition, quiet contemplation, disciplined reading and study an ideal which we bought into and developed educational and information services around. But...
- ...always wanted to skitter and power browse. Difference is that opportunities for skittering are legion and this created more skittering and pace not letting-up.
- Witnessing death of reading? No, just displacement /marginalisation of deep reading, and emergence of power browsing or reading 'lite'.
- Big question will Google Generation turn out to be fundamentally different from older generations in attitudes, expectations and behaviour when become doctors, politicians, lawyers etc.? Will they even 'think' differently?
- And have we dumbed down or just different? Victoria!

