



The second digital transition

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The dam bursts!

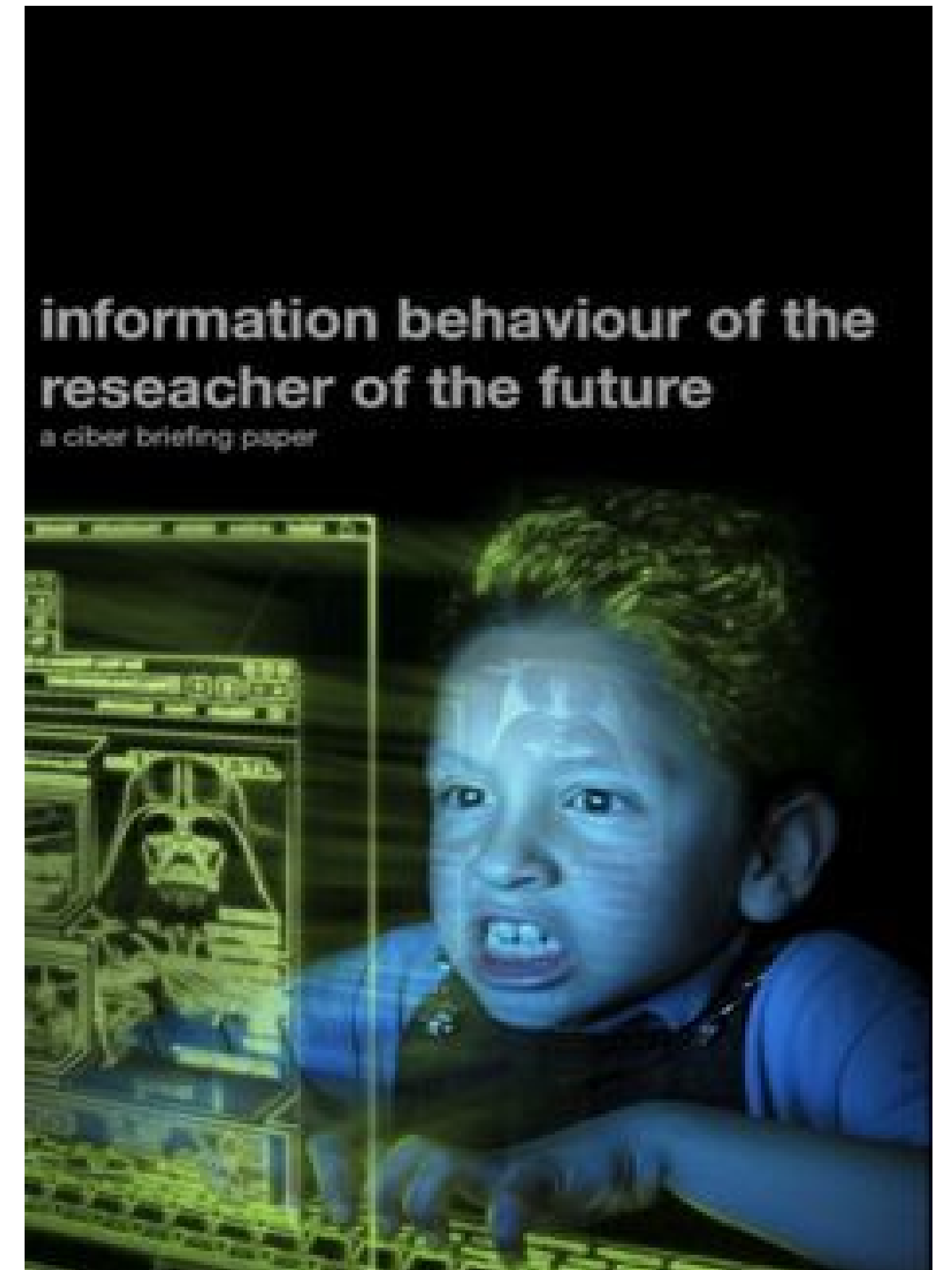
Not so long ago (2008) CIBER surprised information professionals with revelations of what the newly disintermediated Google Generation were up to in the virtual, unmediated information space [report opposite]

But seen nothing yet, with information professionals (and teachers) barely taken breath and stock, another revolution is on us, and has a greater weight behind it

Google Generation (and the rest of us) have been empowered by a mobile device (smartphone/tablet) that will take a form of behaviour alleged as 'extreme' to a completely different level. **The end of culture as we know it!**

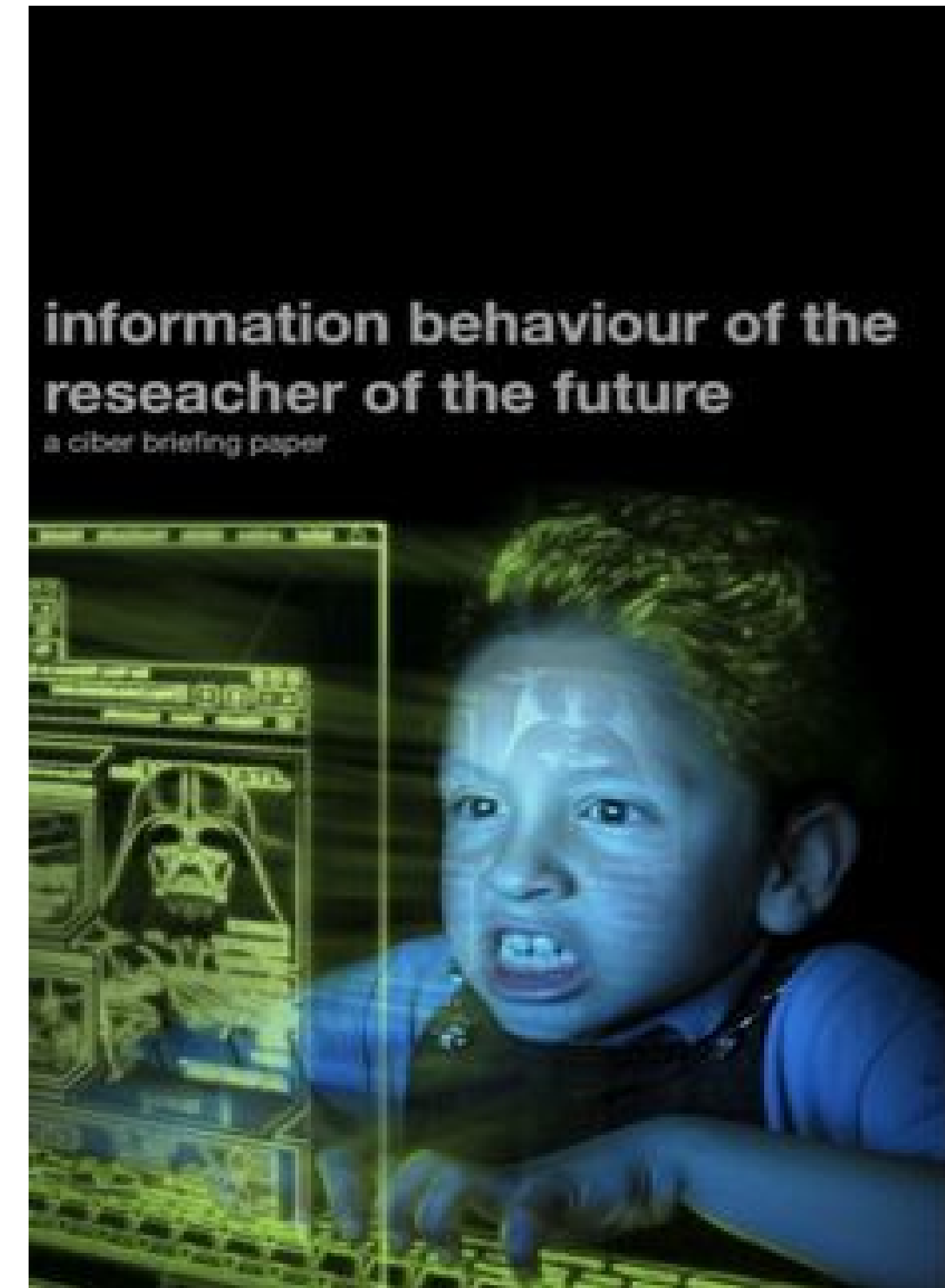
First transition, from physical to digital, transformed the way we seek, read, trust and consume information, but environment in which we conduct these activities had not really changed – still in the library/office, and on a device primarily designed for the desk/office bound.

This year mobile becomes the main platform for accessing the web and this means we are unthethered



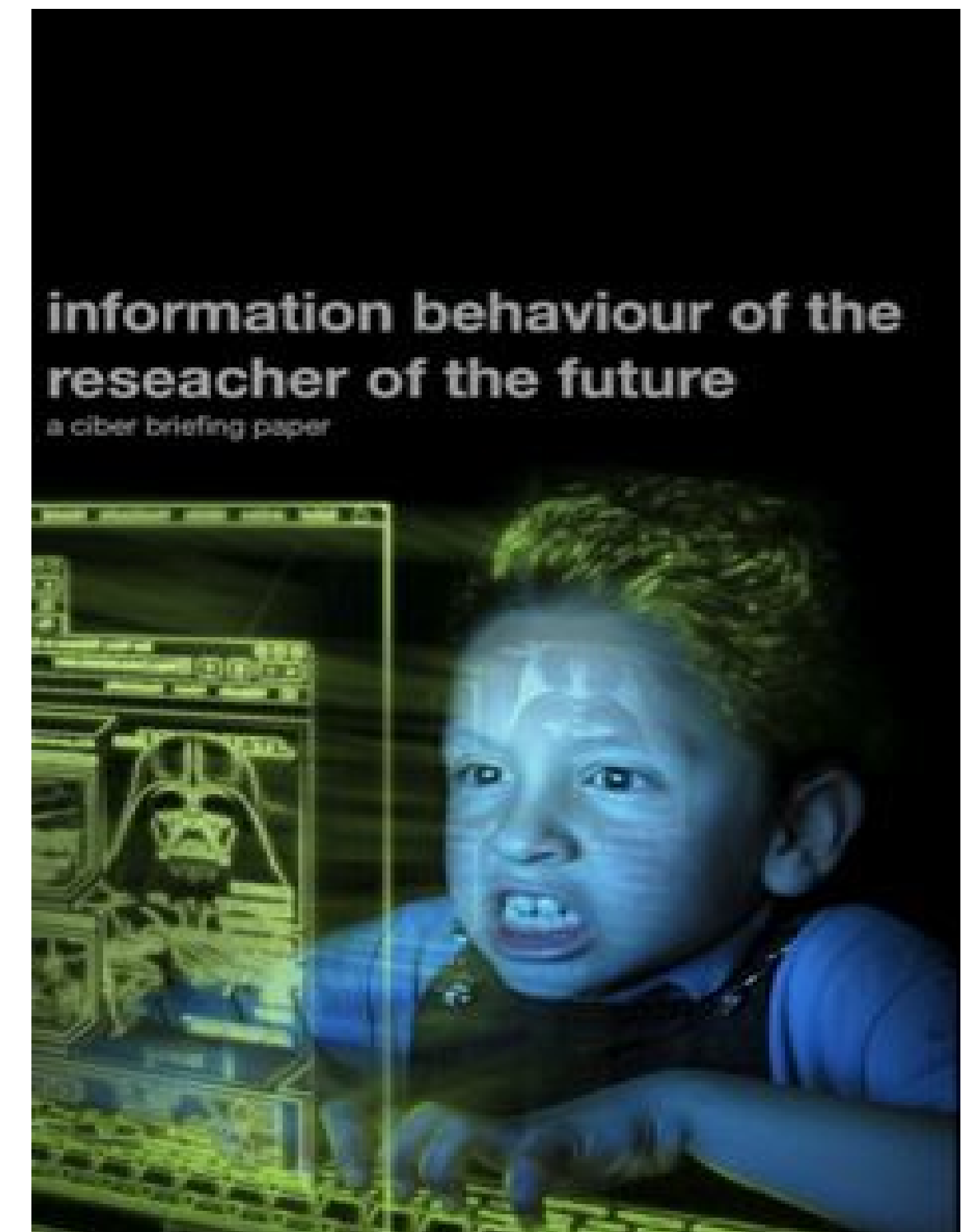
And bursts again!

1. Mobiles mean can meet information needs at time of need, rather than cold store until reach the office, library or home. Mean more needs are met, but perhaps not always that well.
2. 'Big deals' provide fantastic access to information to a privileged few; mobile provides access to masses of information for everyone and anywhere; and, open access increasing the haul;
3. Smartphones social media devices and stride major information worlds, informal & formal;
4. An intrinsic part of the digital consumer purchasing process – used to search for information prior to purchase, during process itself and to make purchase.
5. Trust mobile more than any other information/communication technology.
6. Smaller screens and different ways of interacting (via touch screens and voice recognition rather than keyboards and mice) and this impacts on use.



And bursts again!

- Not computational devices but access devices; also social, personal, cool and massively popular. A very heady cocktail!
- Mobiles devices have huge potential to:
 - a) draw in a larger and more diverse audience for (scholarly@ information
 - b) [further] change the nature of information seeking behaviour and to do this for billions of people,
- Despite the considerable challenges for all stakeholders in information industry know very little about a) how users behave in the mobile environment; b) how differently this behavior is from that associated with laptops and desktops.



Basic characteristics of (fast) digital information seeking behaviour

Foundations of digital behaviour already in place (brain rewiring) on which mobile-induced behaviour will build, so worth going over them

Hyperactive: love choice and looking. Connected to big fat information pipe 24/7

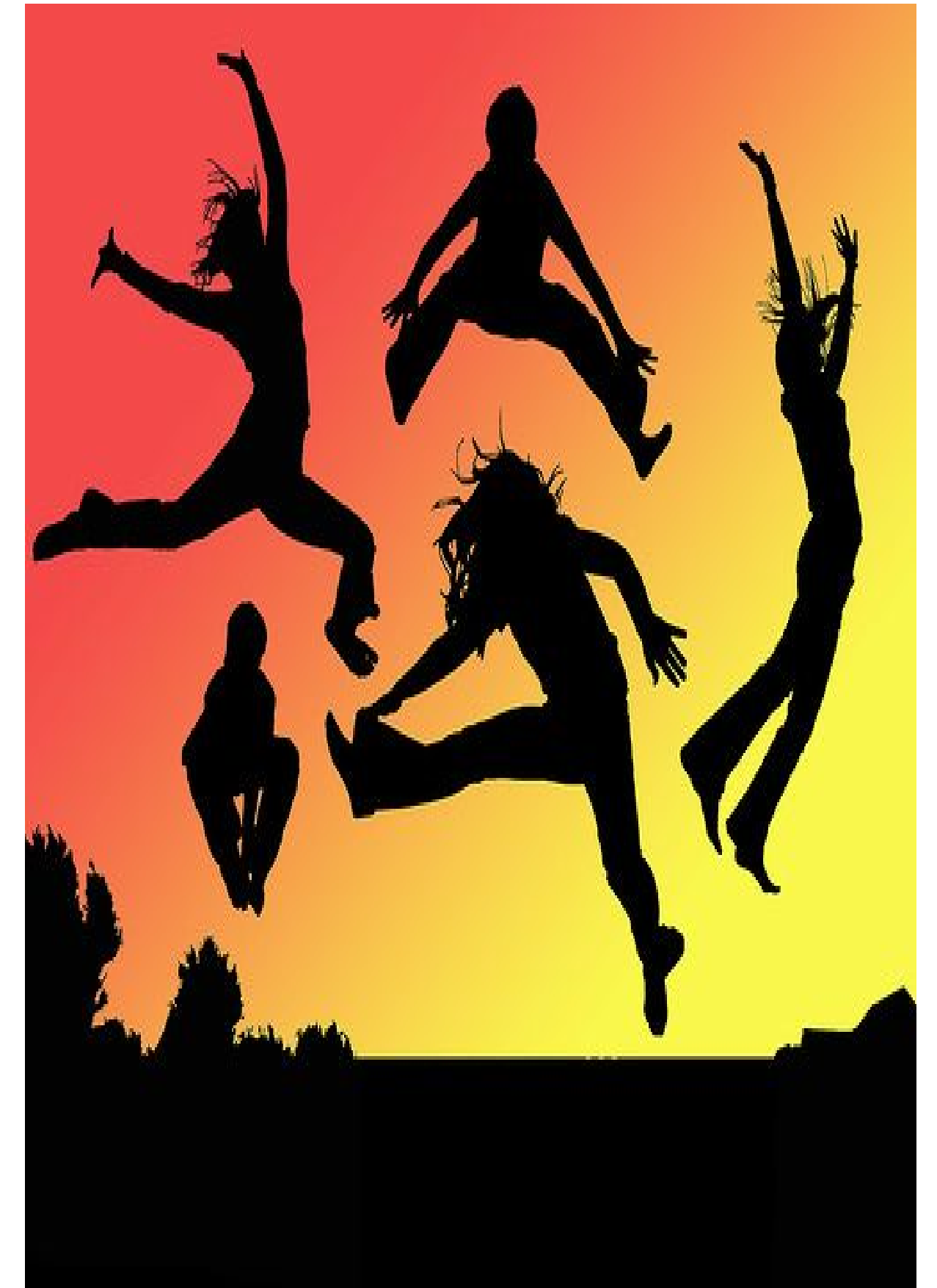
Bouncers: most people view only 1-2 pages from thousands available; 3 is many

Promiscuous: around 40% do not come back

One-shots: one visit, one page

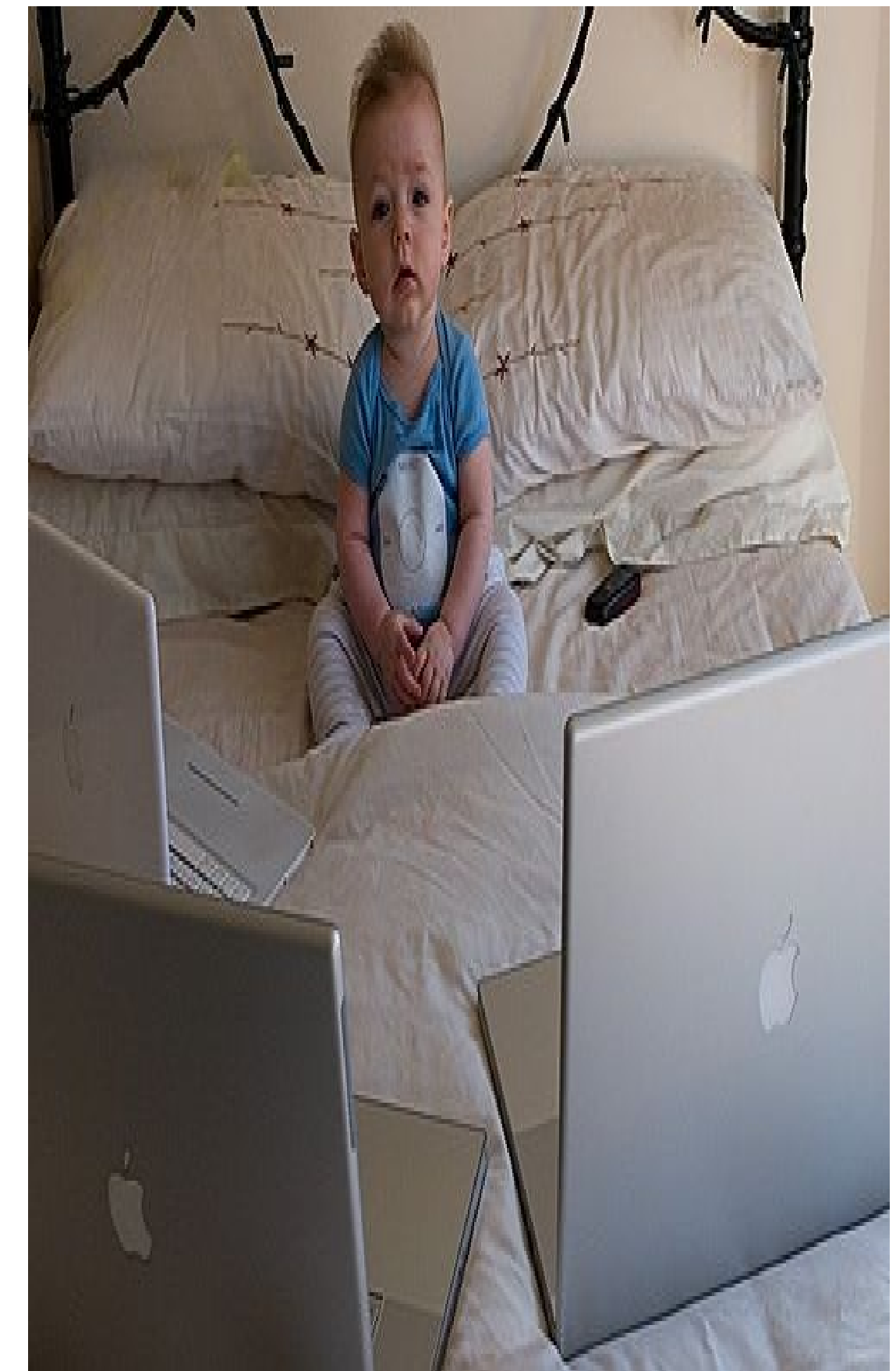
Because:

- Search engine searching (lists) and links (enjoined to go elsewhere)
- Massive and changing choice
- So much rubbish out there
- Poor retrieval skills (2.2 words per query; first page up on Google)
- Forget: leave memories in cyberspace; adds to 'churn' rate
- Direct result of end-user checking
- Multi-tasking - more pleasurable doing several things at once



Horizontal has replaced the vertical, reading is 'out' and fast view 'in'

- Information seeking wise '**skitter**' (moving rapidly along a surface, with frequent light contacts or changes of direction). Power browse.
- **Nobody does much reading** or not what is traditionally thought to be reading (reading whole documents). A read can mean 10-15% of a doc. Logs tell us:
 - Scholars go online to **avoid** reading; prefer the visual
 - Only a few minutes spent on a visit; **15 minutes is a very long time**;
 - Shorter articles have **much** bigger chance of being used; short story books designed the digital universe
 - Abstracts never been so popular
- **Fast information.** (Information) snack/bite has replaced the three course meal (whole document)
- Conditioned by emailing, text messaging, tweeting and PowerPoint to like fast shots of information. Mobiles, of course, the ultimate **take-away**



Now what then of mobile behaviour: case study Europeana (gateway to European culture)



Europeana mobile use



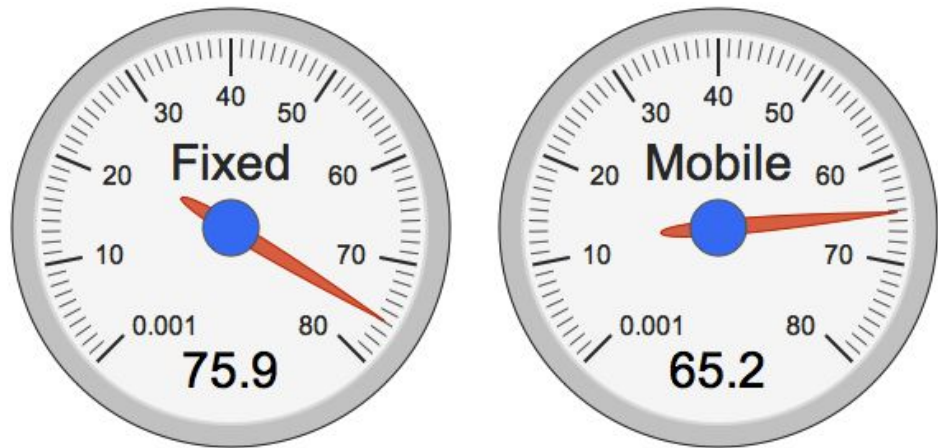
- Mobile usage growing at **5 times** greater than 'fixed' devices
- A staggering rise of nearly **400%** in six months, admittedly from low base
- **130,000 unique** mobile users accessed Europeana in last 6 months
- Over 90% **Apple Mac devices**; iPads the vast majority
- **Information 'lite.** Visits from mobiles much less interactive: fewer records/pages viewed, fewer searches conducted; less time spent on a visit.'
- **Differences between devices:** limited screen real estate and slowness of Blackberry means use very abbreviated indeed, iPhone quite abbreviated and iPad generates metrics closer to desktops/laptops. Little depth research on show.
- Mobile use peaks at nights and weekends; that from desktops on Wednesdays and late afternoon. Searching and reading has moved into the social space



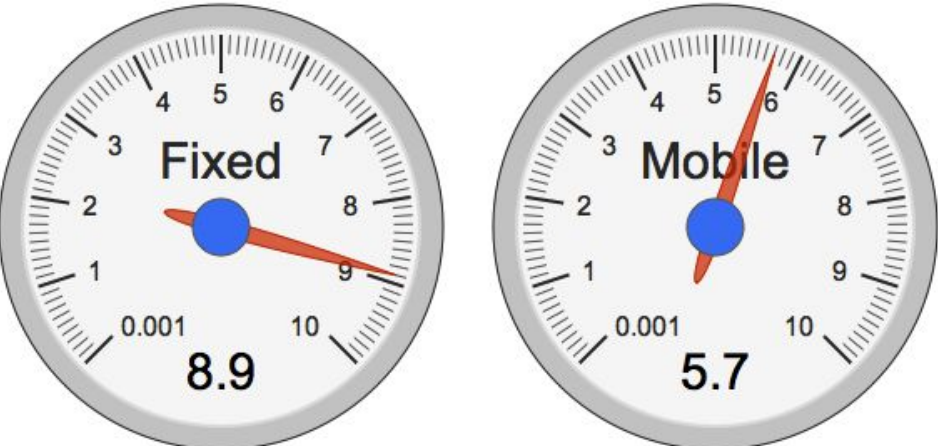
CIBER dashboard: fixed and mobile user information seeking compared



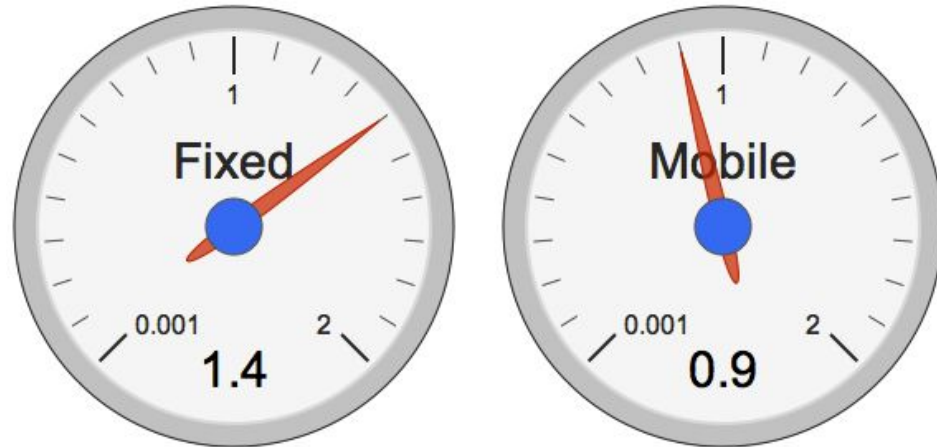
Duration of visit (seconds)



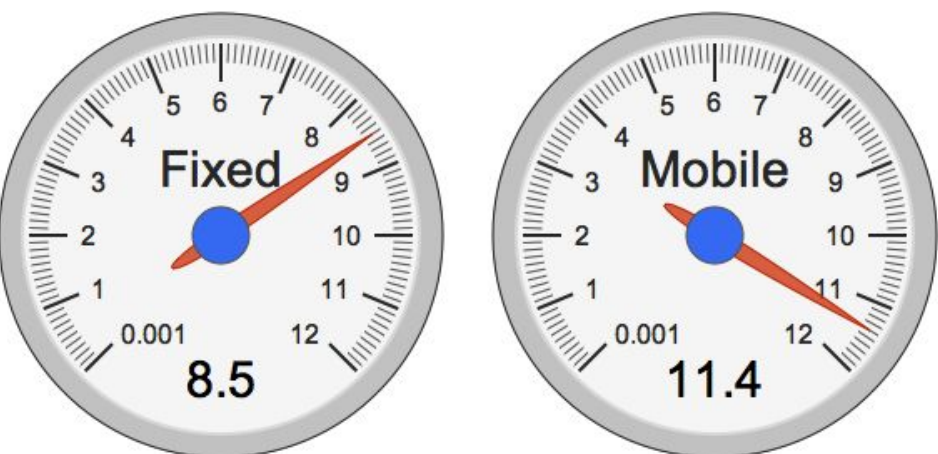
Page views per visit



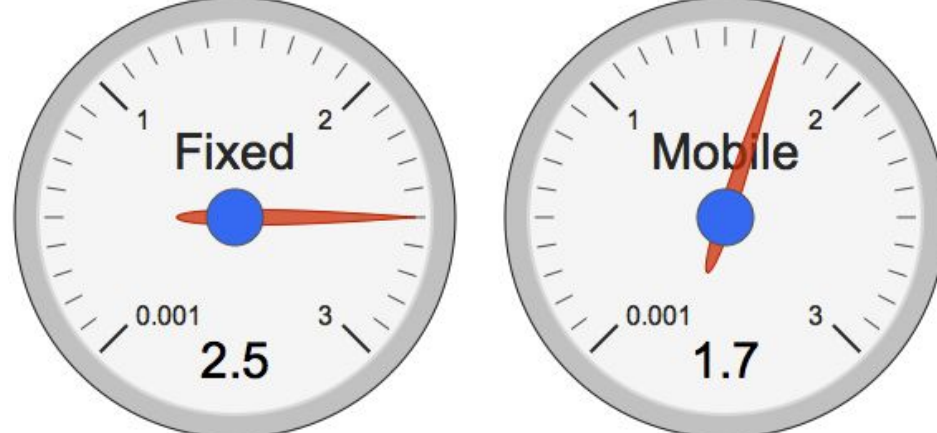
Queries per visit



Time per page (seconds)



Record views per visit



Visits from mobile devices are much less interactive: fewer records/pages viewed, fewer searches conducted;
less time spent on a visit but longer on a page

CIBER dashboard: mobile platforms compared

Duration of visit (seconds)



Page views per visit



Queries per visit



Time per page (seconds)



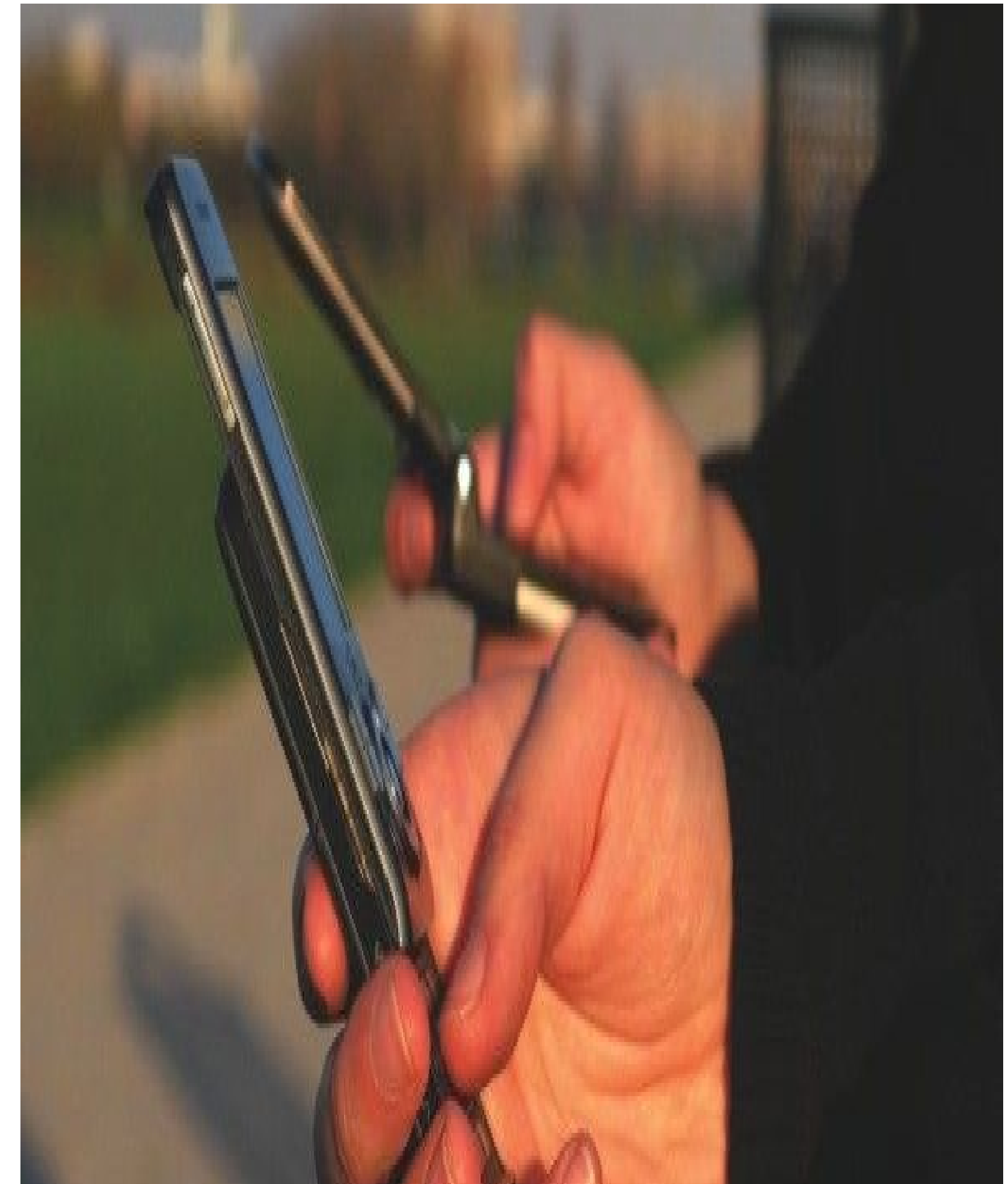
Record views per visit



Big differences: limited screen real estate and slowness of the Blackberry clearly a limiting factor for in-depth research. On the other hand, the tablet iPad generates usage metrics that are not hugely dissimilar from desktops or laptops.

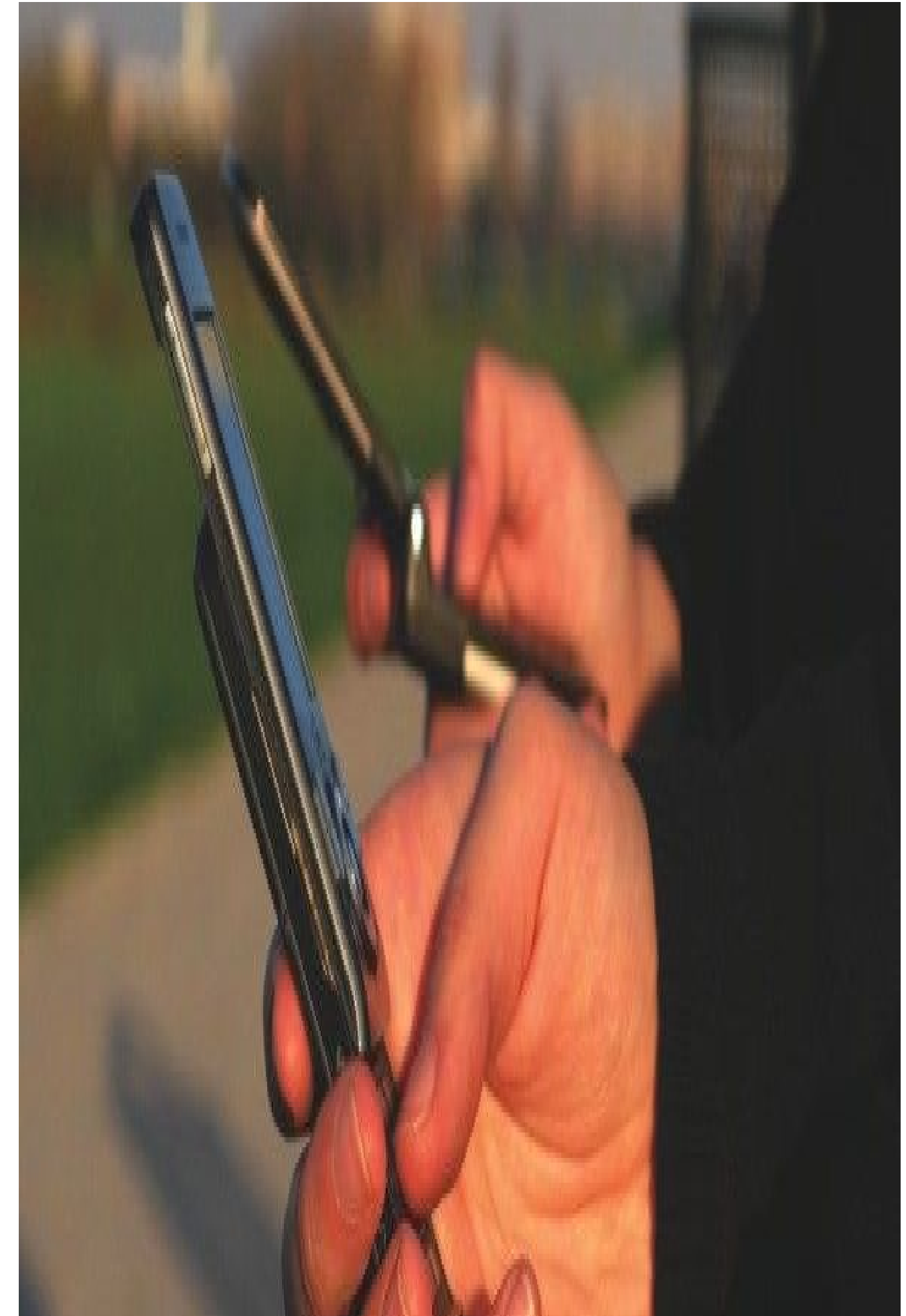
Young people and mobile phones: the wave

- Ask a young person about a library and they will point to their mobile phone
- Ironical. Phone once banned from libraries. Now become the library!
- We could not have come farer from the initial concept – no walls, not queuing and no intermediation



The mobile, borderless information environment and challenges for libraries (maybe publishers too)

- **Constitutes another MASSIVE round of disintermediation and migration.** Relatively speaking the library's information universe has shrunk as a result of everyone else's being massively expanded. Researchers' information horizons once bound by the library but not anymore.
- Libraries perceived as *incomplete* sources of information and researchers increasingly less likely to trust librarians to make the critical decisions on what is and what is not in the walled garden on their behalf.
- On top of that Google Scholar, Social media etc. create a new value proposition by providing citation and other (alt) metrics so users can form own views on what is a good. Substitute for the intermediary.
- Libraries need to articulate value or rationale for their collections in a borderless information environment. Mobile just adds to the problems
- **The changed platform and environment transforms information consumption**



Final reflections: is the web and the mobile device making us stupid?

"There is the desire of a consumer society to have no learning curves. This tends to result in very dumbed-down products that are easy to get started on, but are generally worthless and/or debilitating. We can contrast this with technologies that do have learning curves, but pay off well and allow users to become experts (for example, musical instruments, writing, bicycles, etc. and to a lesser extent automobiles)."

- Where are we going with information, learning and mobile devices?

