

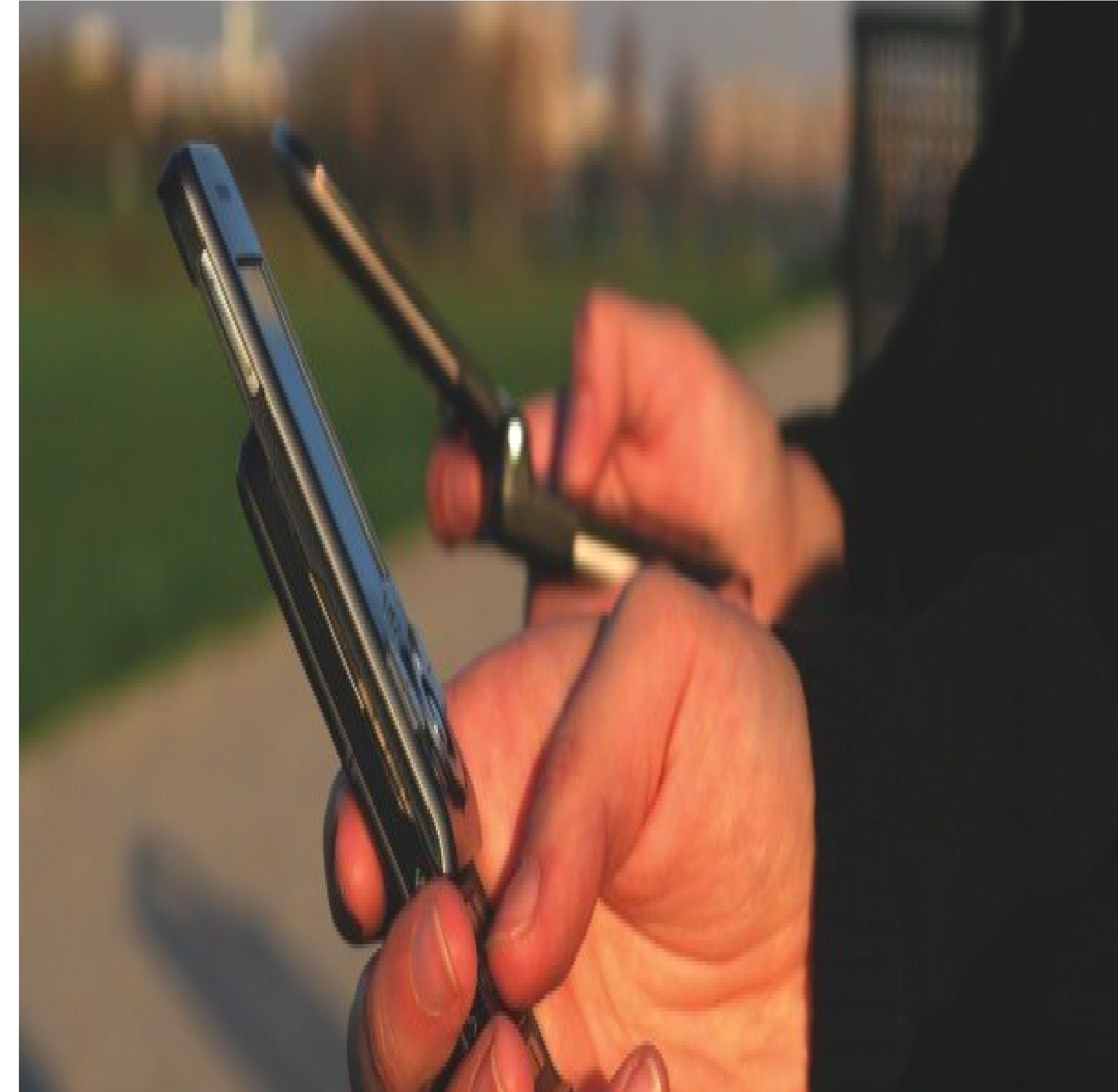


# What do students want (and how they behave)

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# E-textbooks: part of something much bigger

- We have all been conditioned by the platform and we have been subject to quite a few platform changes
- Born digital even more conditioned and arriving at universities as we speak
- So, in understanding how students use e-textbooks (and to get the best out of them) we need to understand first how they use the web, the tablet, the smartphone...
- And ensure we build on that...



# Digital conditioning of human behaviour: the fundamentals

Foundations of digital behaviour already in place. Students are:

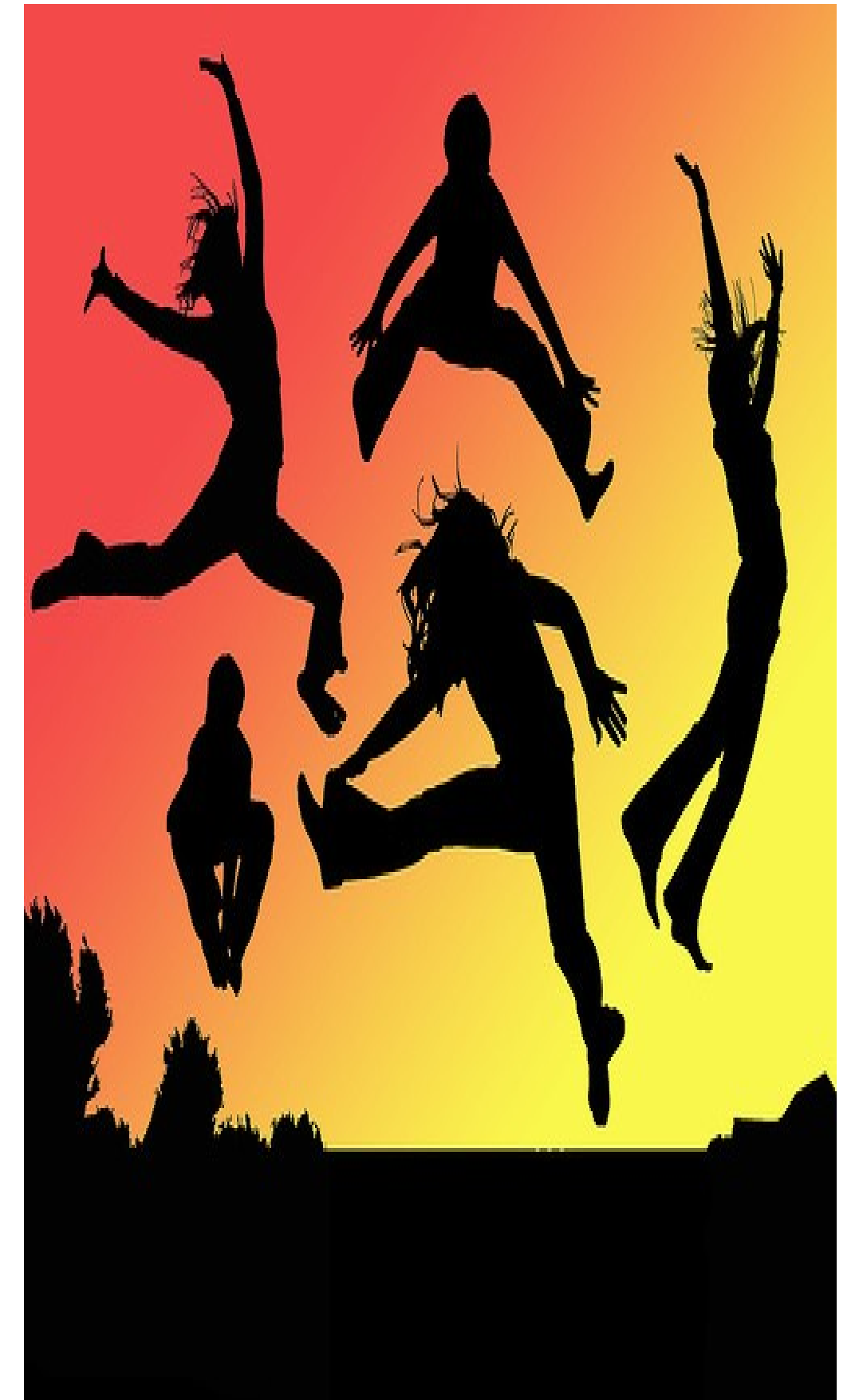
**Hyperactive:** love connectivity and massive choice. All connected to big fat information pipe, 24/7 and vast amount of 'use' occurs

**Bouncers:** on a 'visit' most people view only 1-2 pages from the hundreds/thousands available on a site; 3 is a lot

**Promiscuous:** around 40% of us do not revisit a site

**One-shots:** one visit, one page characteristic – a rapid sampling and checking behaviour

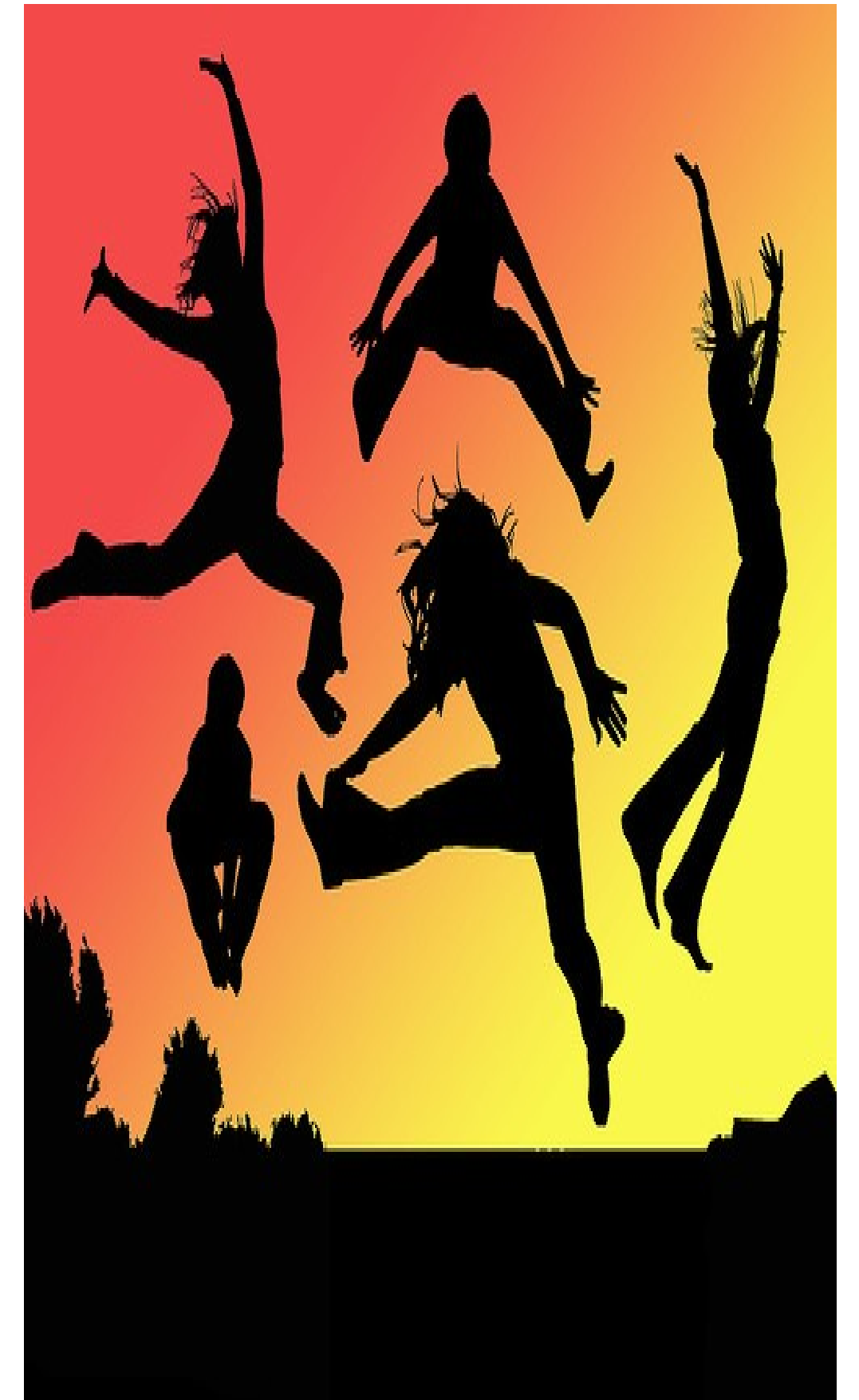
**Multi-taskers,** but not necessarily good at it; always one eye on something else; *always* more pleasurable doing several things at once



# Digital conditioning of human behaviour: the explanation

All this because of:

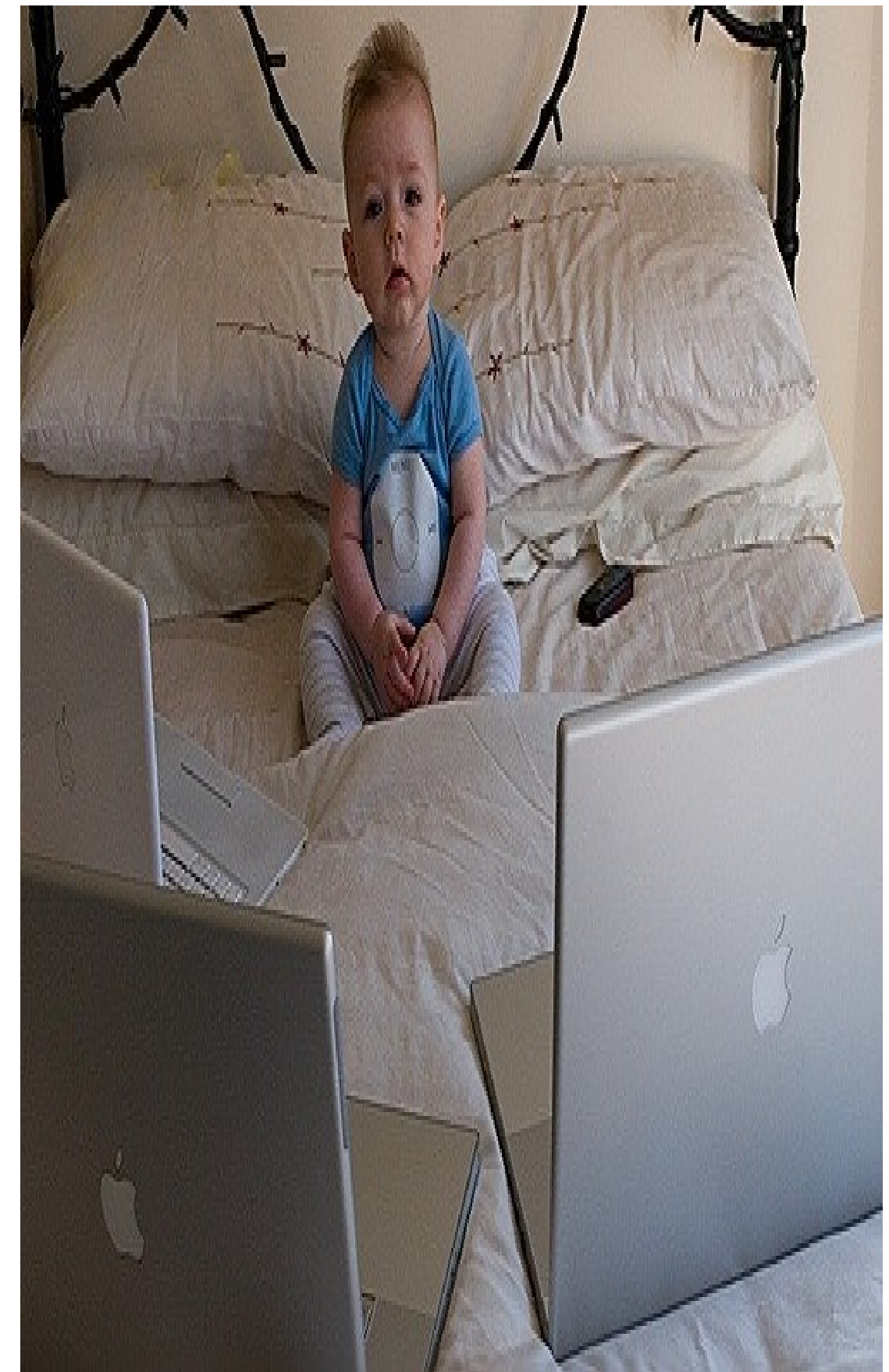
- **Search engine** searching (lists offering choices) and links (enjoined to go elsewhere)
- Massive and changing **choice**
- So much **rubbish** out there (it's the information Wild West)
- Poor **retrieval skills** (2.2 words per query; first page up on Google)
- Forget: leave **memories** in cyberspace; adds to 'churn' rate
- Direct result of **disintermediation** and end-user checking (poor evaluation skills)





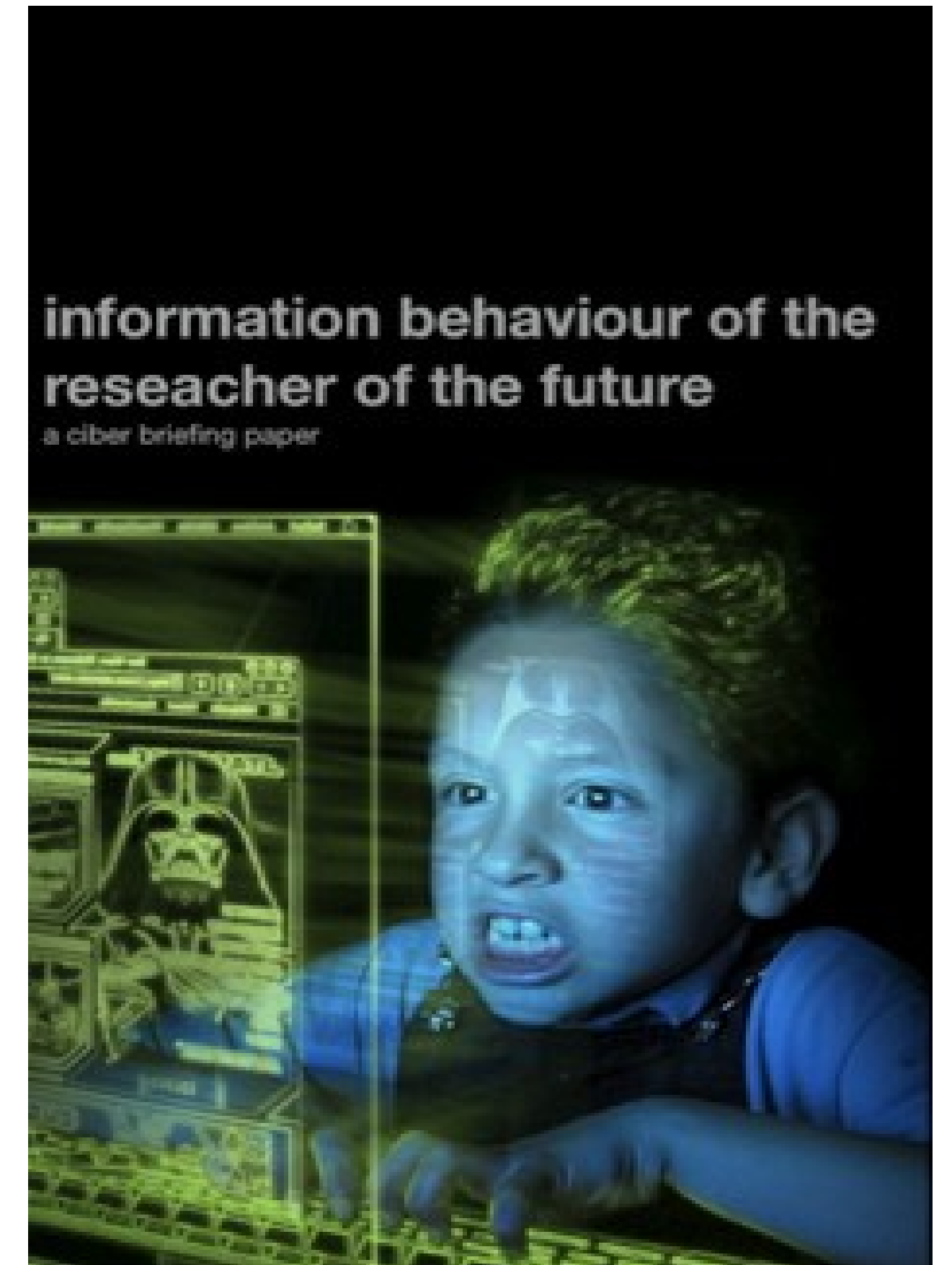
# Digital conditioning of human behaviour: means

- In information seeking terms horizontal has replaced the vertical
- Students '**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 document.
  - Only a few minutes spent on a visit; **15 minutes is a very long time**;
  - Shorter content has **much** bigger chance of being used; and it does not get much shorter than Twitter
  - Abstracts never been so popular
- Conditioned by emailing, text messaging, tweeting and PowerPoint to like fast 'shots' of information. Mobiles, of course, the ultimate **take-away**



# Not just human behaviour that is changing but so are brains/minds

- The brain is rewiring
- Memories are losing capacity partly because we rely on Google and partly
- Digital is not so memorable. Doesn't stick/sink
- Levels of concentration and contemplation are diminishing
- Levels of insecurity are rising
- Have a big addiction problem – third arm



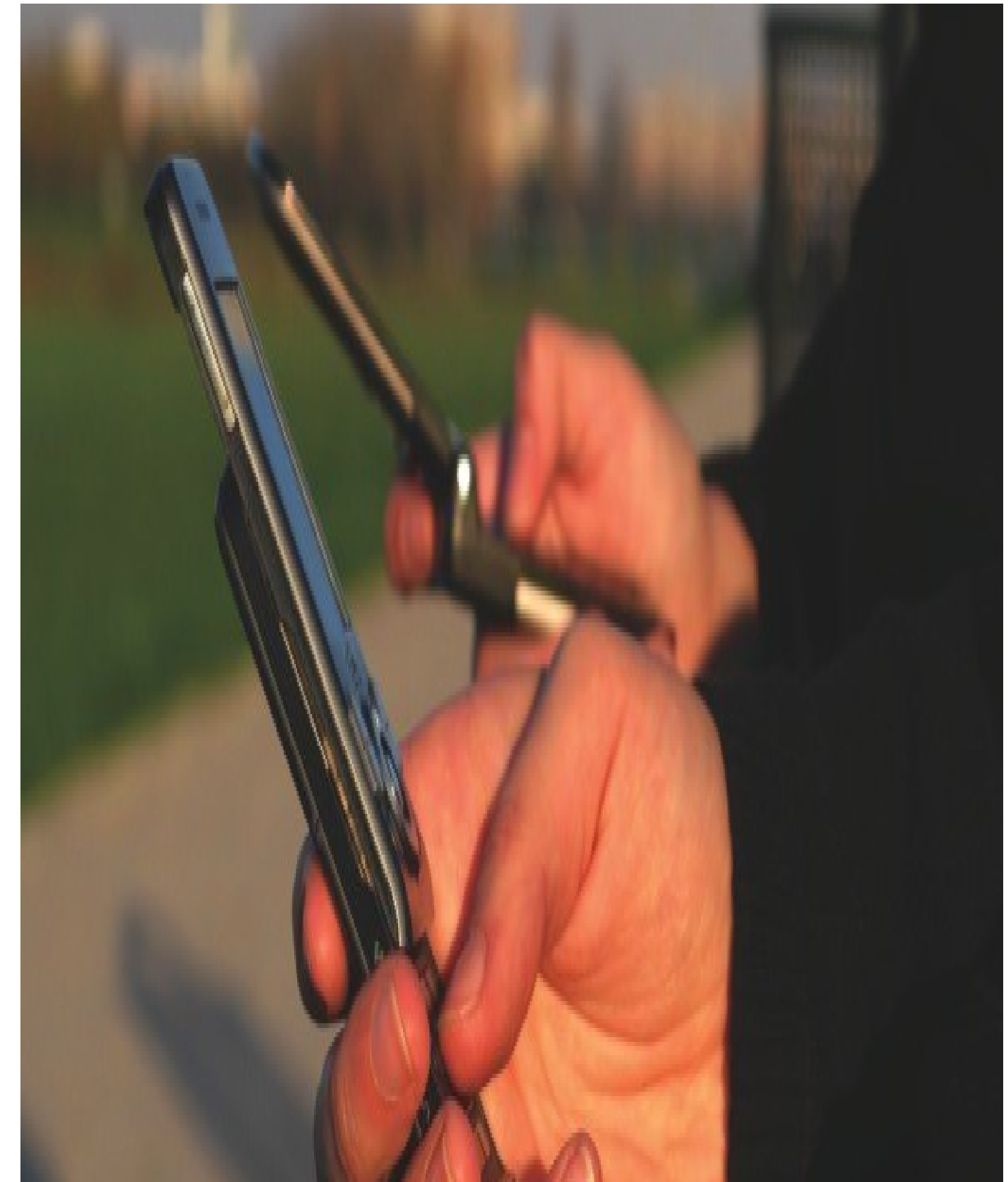
# Smartphones taking behaviour to another level

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 new 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 scholars conduct these activities had not really changed – still in the library/office, and on a device primarily designed for the desk/office bound.

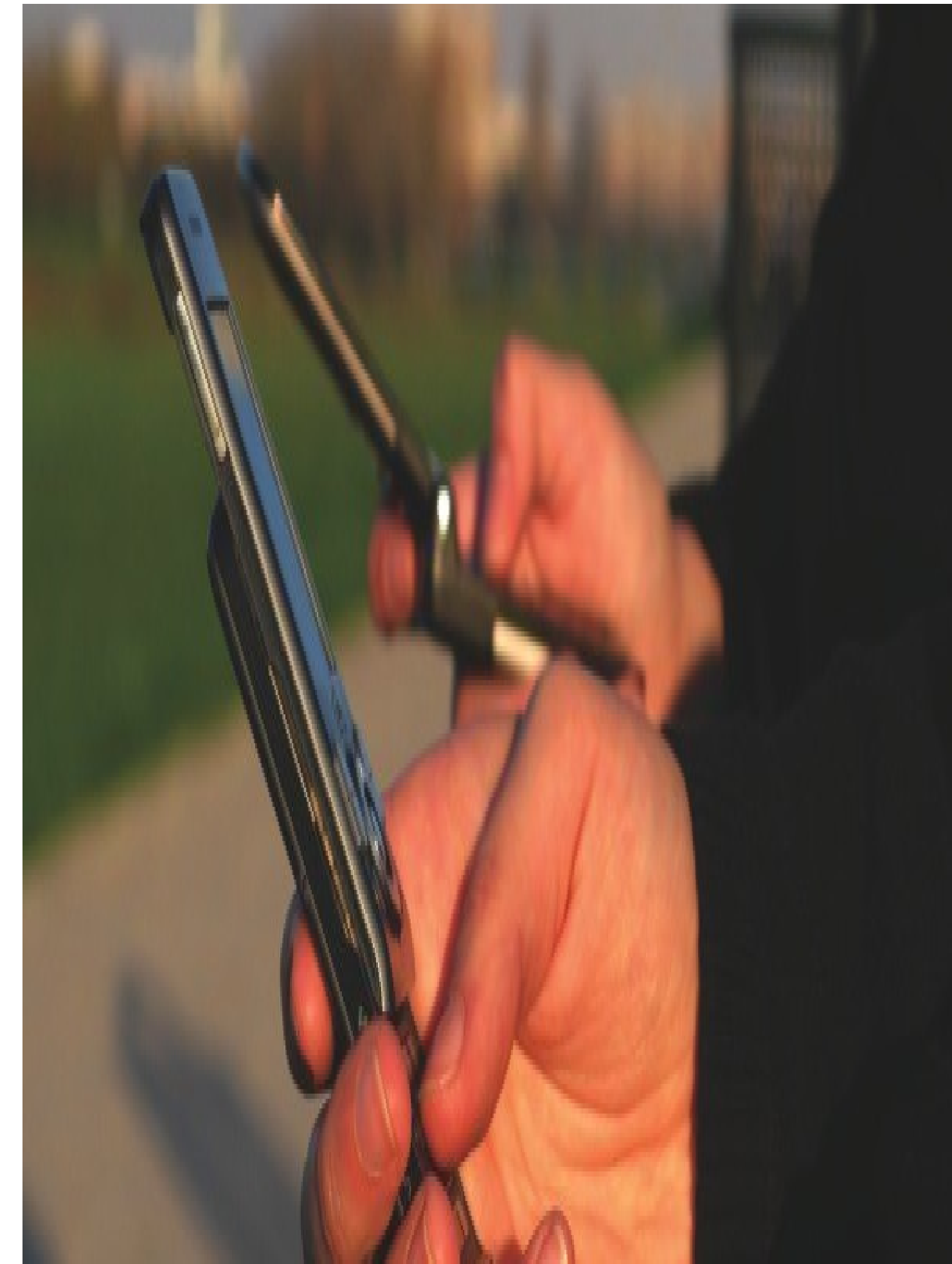
Smartphone now main platform for accessing the web and this means students are untethered and borderless

Means we move from voice to text after having moved from text to voice. Information environment is very unstable and so are the new wave



# Smartphones: the game changer

- 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.
- '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 (80%);
- Social devices that stride information worlds: informal & formal;
- Trust mobile more than any other information/communication technology (trust imbued in the device as much as the content).





# Patterns of mobile use

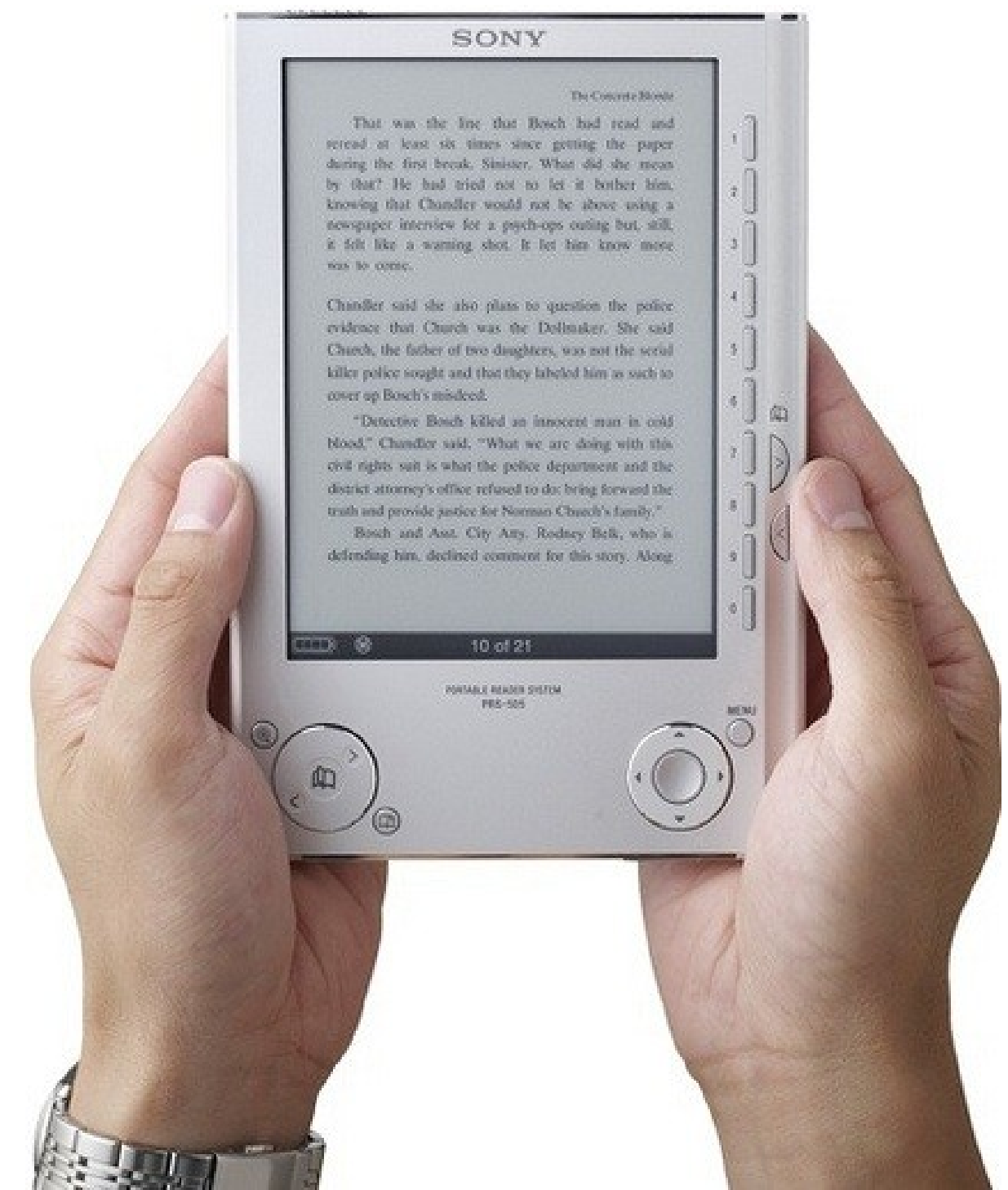


- **Information 'lite.** Visits from mobiles much less interactive: fewer records/pages viewed, fewer searches conducted; less time spent on a visit.'
- **Differences between devices:** limited screen real estate and doing in a social space means use very abbreviated indeed, iPhone quite abbreviated 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
- Ask a young person about a library and they will point to their mobile phone. Information becomes personal.



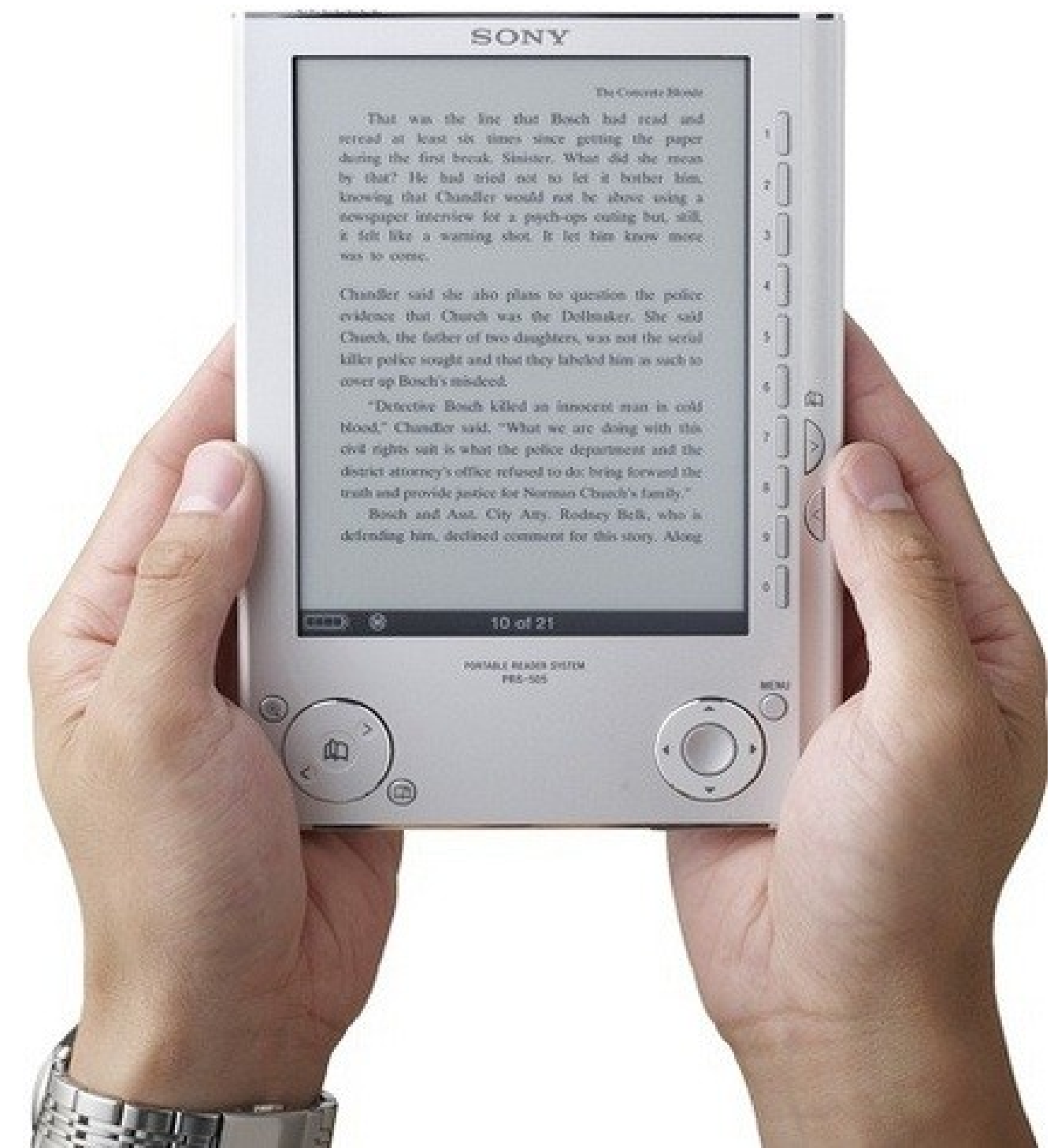
# What then of e-books generally: latest prognosis

- When we did JISC national e-book observatory project (2007-2010) (<http://observatory.jiscebooks.org/>) some commentators forecasted e-books would fail, others said it was the death of the physical book. But transitions never turn out like that:
- Generally book publishing profitable
- Physical books are said to be resilient among all ages; indeed they might be becoming fashionable (again) among the young
- Deloitte estimates print will account for 80% of global book sales in dollar this year and “generate the majority of books sales for foreseeable future”.



# What then of e-textbooks: characteristics?

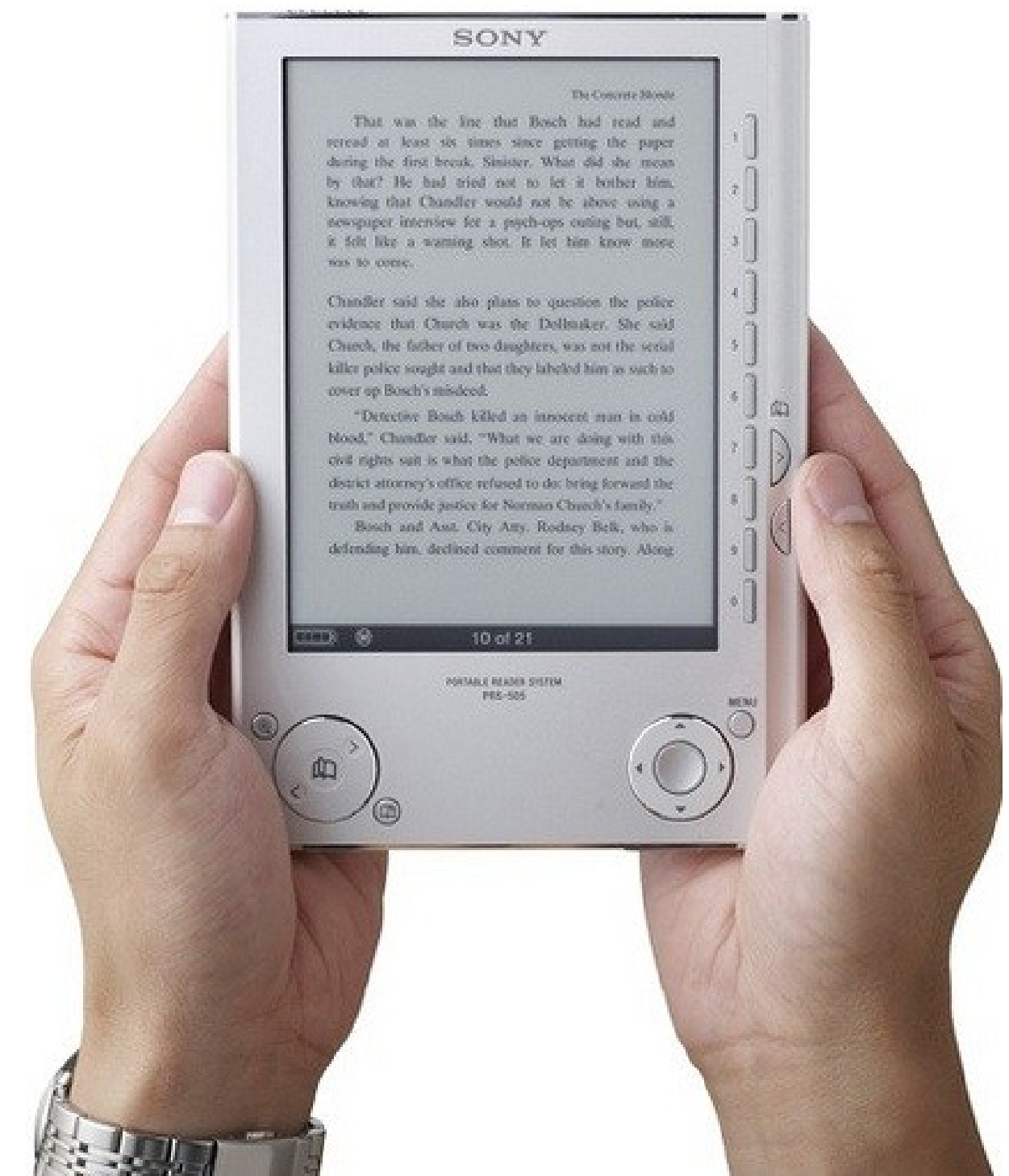
- Offer condensed, distilled knowledge
- Typically more accessible than journal articles
- Big access issue with students/library users (come back to this)
- Under-utilised resource because contents not digitally visible, now in consumer-friendly form, fits bouncing & power browsing behaviour.
- Bait of abstract and keyword, raises to prominence enjoyed by e-journals
- Can use anywhere and at any time.
- Big boost for humanities. Oldest kid arrives on digital block with e-books and digital objects now in hand. Last to make the transition to the digital but making the most of it (digital humanities).





# What then of e-book: usage?

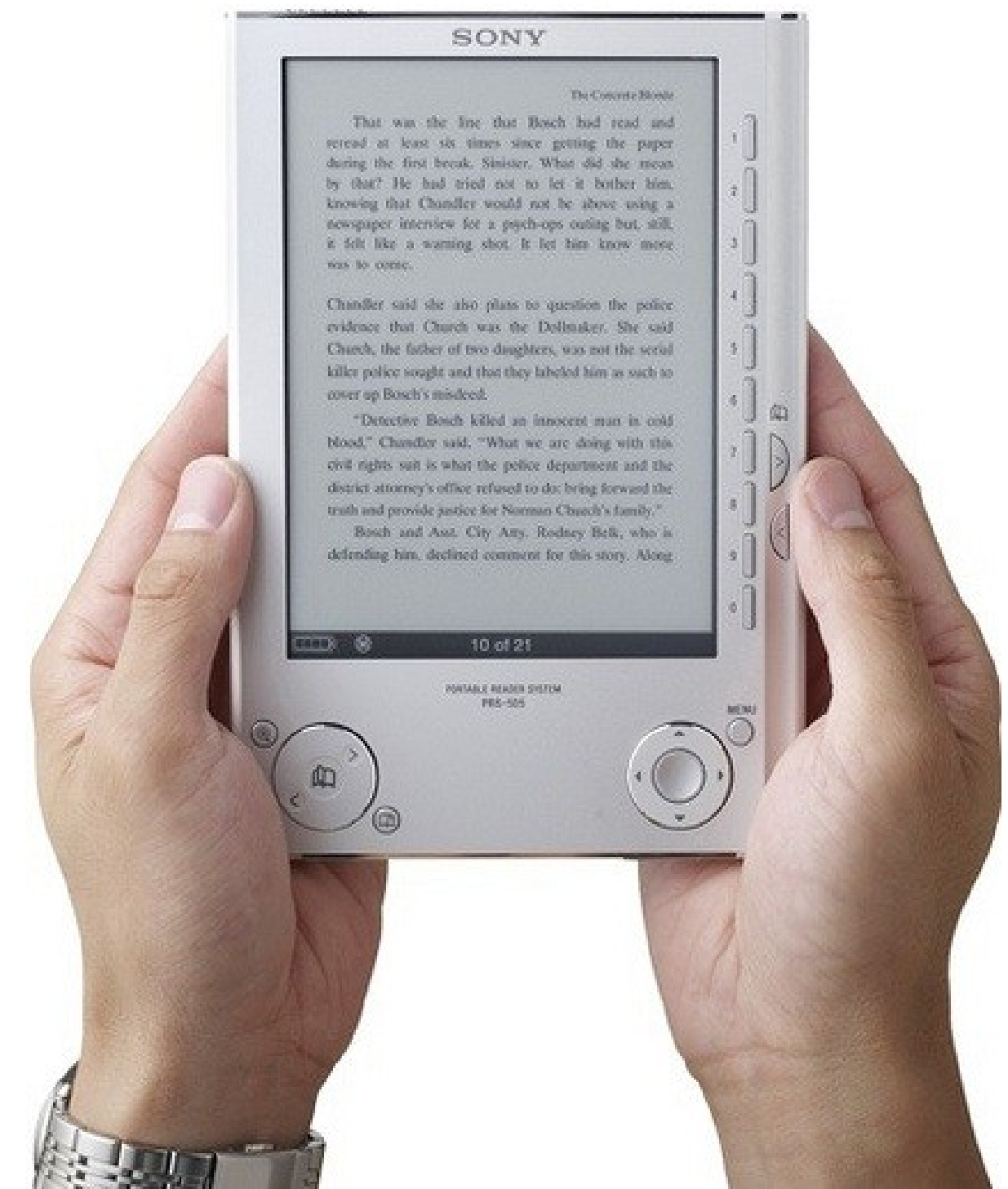
- 5% of users spent more than 5 minutes viewing a page and 85% spent less than a minute
- Consume contents of e-books in small chunks. Use of e-books satisfies need for brief information/rapid fact extraction: not used for extended reading
- Once e-books the norm will result in less continuous reading as users adapt to great choices offered by zooming through contents of dozens of books in seconds
- Much time devoted to navigation and finding content - taking full advantage of new digital motorways driven through books and the knowledge discovery opportunities that arise
- Nearly two-thirds of viewing directly from the screen rather than from paper or a mixture of both screen and hard copy.
- Third of e-book viewing took place off campus and a quarter after 6pm and before 8am. Delivered big academic productivity gains





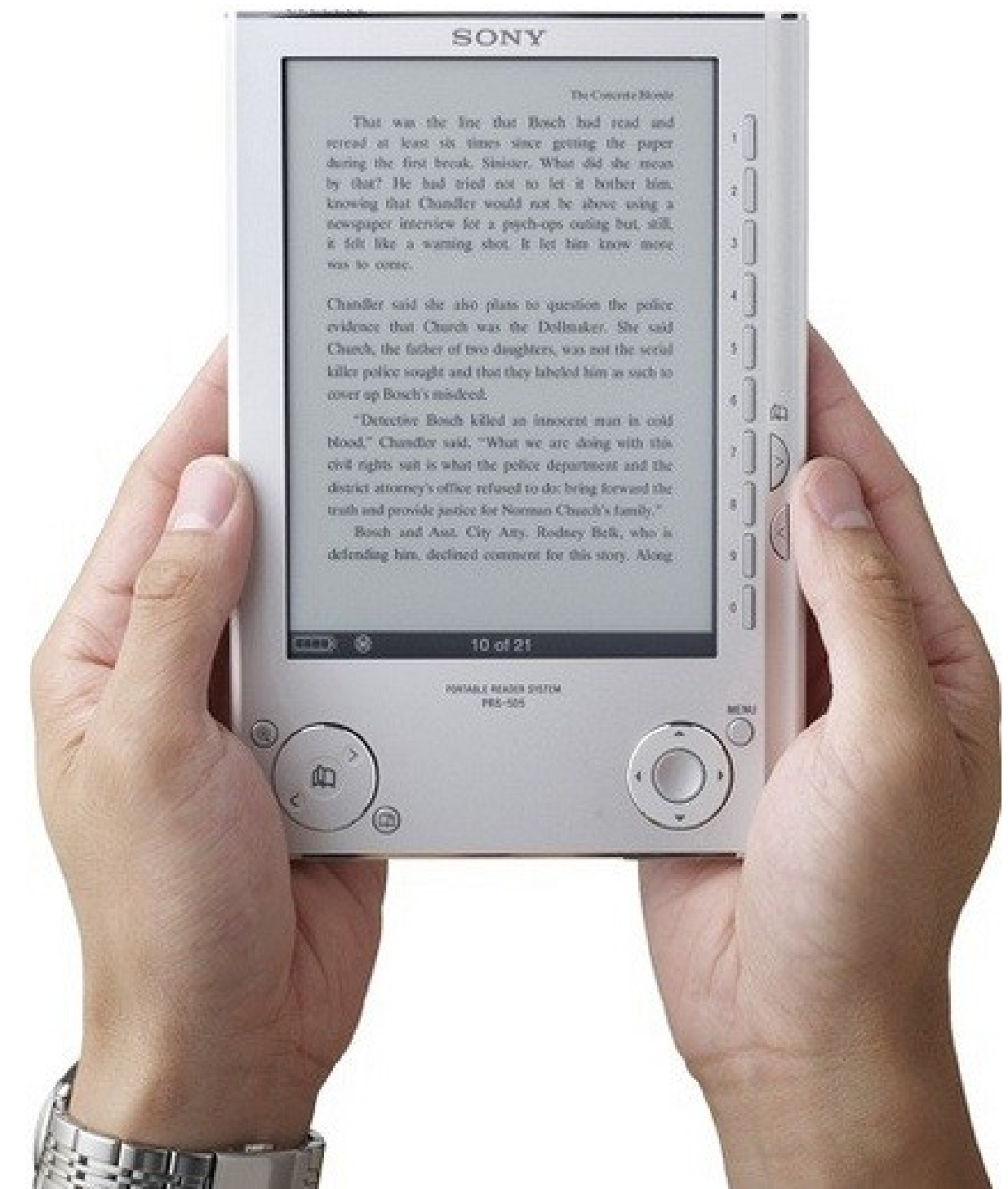
# What then of e-books: super users?

- Typical e-textbook `super user' (Those who looked at least 5 e-books in 4 weeks):
  - **older** than typical students, typically 22-35
  - most likely to be taught **postgraduates** on vocationally-oriented programmes.
  - more likely to be **male**
  - much more likely to be **daily visitors to physical library** as well as the digital library
  - most likely to be **Business Studies** students
  - undertake **longer sessions** and much more likely to spend 20+ minutes on a 'read'
- Super users cannot be explained by geek factor: no more or no less dependent on internet resources than other students



# Conclusions

- Academics (staff and students) do not read whole books; they read bits of them Much easier to do now that the contents of books are laid bare and search pathways driven through them
- Few people read a whole book in the past; it was just that we could never tell. People simply bought or borrowed a whole book and the assumption in a knowledge vacuum was they read it all.
- Perhaps e-books actually meet information needs far better than print books?
- But because not so memorable will have to refer and refer again?
- JISC results punctured a widespread professional myth that people would not read online, it was always said (without much evidence) that they would always prefer to read in paper offline. False, they read online with alacrity, every age group. Of course, they are reading snippets online and not the whole book



# The bigger picture: topsy-turvy and parallel universes

- World upside down: use a smartphone to read a book!
- Gone from text to voice and back again
- University education existing in a parallel universe – forming up in obsolete formations and denying reality. Decoupling.

