



Digital information consumers, with special reference to the Google Generation

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Transformations

1. **Digital transition** creates unbelievable access to everything which brings search and evaluative skills to all aspects of life
2. **Disintermediation** is a consequence and results in fast and massive choice, courtesy of Google
3. Digital transition has much further to go what with the likes of **mobile and reading devices**
4. The digital transition means behaviour goes on **remotely and anonymously**



5. Consequence is parents, teachers, publishers, librarians etc) **know less and less about more and more** people
6. This leads to **decoupling** and, possibly, professional/business melt down
7. Compounded by the fact that – as we shall learn the virtual has **fundamentally changed** the way we seek, use and communicate
8. In the vacuum still working on basis of **old, uninformed, paradigm**
9. Badly need to **visualise, conceptualise and act** what is going on
10. And an internet year is **seven weeks!**



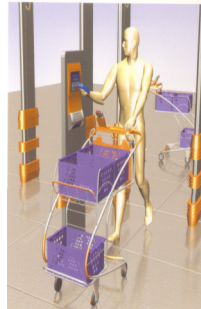
CIBER: virtual voyeurs - we have a lot of evidence

- Need e-methods for an e-environment
- Millions of footprints from health, publishing, media, cultural and academic sectors.
- DLA – turn activity to use/information seeking, turn into user data and then look at outcomes
- What people did, not what they say they did, wish they did or thought they did. Do not remember what they did in the virtual space. Don't even know the questions to ask.
- The data is challenging to say the least...



1. Lots of activity: take scholarly publishing market

- **1.6 billion annual scholarly downloads**
- **Access** the driver.
 - More drawn into information net (all scholars, researchers and librarians now!)
 - Existing users search more freely & flexibly.
- **Extended working** . Quarter of use occurs outside 'traditional' working (9-5) day and weekends account for 15% of use
- **Growth**. 40-60% - increase: a) more digitization; b) preference for everything digital; c) wireless/broadband; d) mobile devices (Cell phones, iPads)
- **However**, lots of 'noise', most users robots



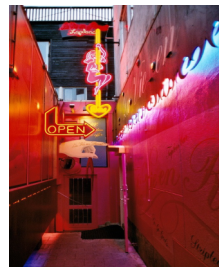
2. Bouncing

- Over half visitors view just 1-3 pages from thousands available.
- Bounce because of:
 - search engines,
 - massive choice,
 - an 'acceptance of failure' - pragmatism, shortage of time & overload
- Bouncing not always sign of failure but can be
- **Younger people** bounce the most



3. Promiscuity

- Around 40% do not come back:
 - Choice & shop around
 - Lured away by search engines
- Poor retrieval skills (2.3 words) and leave memories in cyberspace add to 'churn' rate
- Direct result of end-user checking
- Younger they are the more promiscuous they are



4. Horizontal has replaced the vertical

The horizontal has replaced the vertical: skittering (move rapidly along a surface, usually with frequent light contacts or changes of direction) or **flicking**. Victoria!

Hoover through titles, headings, contents pages & **summaries** at a huge rate and its pleasurable.



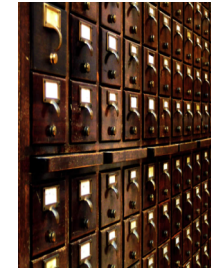
5. Viewing has replaced reading

- Power browsing
- Been conditioned by emailing, text messaging, Tweeting and PowerPoint and mobile apps will condition even more
- Context: 15 minutes a long time online
- Don't view an article online for more than 5 or so minutes
- Go online to **avoid** reading.
- If long, either read a summary or squirrel away for a day when it will *not be read* (**digital osmosis**)



6. Like it simple and fast

- Avoid carefully-crafted discovery systems. Love Google
- Advanced search used rarely, and hardly at all by highly-rated research institutions.
- Fast bag pick-up
- Fast information for a fast food generation – it fits



7. 'immersive' information environments essential

- Said something which threw us all initially - they could not understand why they had to do all the work in getting something from the website. At first this was attributed to laziness but it turned out not to be that. They felt the content was locked, submerged and they had to dig a lot to see it, when maybe the service could make some things available automatically – the data coming to them, rather than having to chase it.
- Social networking should be a given
- Returned book trolley!

8. Brand much more complicated than you think

- 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!



Web behaviour profiling

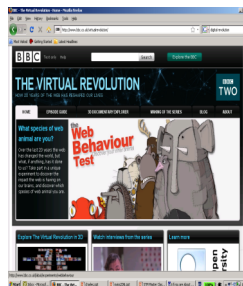
- So we have a good idea of how digital information consumers behave but don't do a lot about it – live in parallel universes!
- Given that:
 - most of what we do we do online,
 - we behave in very different ways than previously thought
 - human behaviour could not previously be investigated in such detail
 we need tear up the rule book, throw away personality profiling and the like and introduce web profiling... which takes us to our latest work with the BBC...

BBC Virtual Revolution Experiment (2010)

- Run out on BBC website to global audience – 70,000+ responses
- Sought to characterise and evaluate information seeking and usage behaviour by tracking what people did online and relating it to demographic background (age and gender), working memory and multi-tasking ability.
- On the basis of their performance people were assigned a web animal which fitted their behavioural style. "The fox knows many things, but the hedgehog knows one big thing".
- Still to process all the data and using pilot data here to illustrate what we will be finding

BBC animal experiment

- Eight animals types used, for instance:
- **WEB FOX.** Web Foxes are good at finding information quickly. They are highly social, maintaining complex relationships with the other members of their social group, often using social networks, or other sites whose content is created by its users, as sources of information. Web Foxes are multi-taskers, able to do several things at the same time. The pilot study found that Web Foxes tend to be younger (16-24), less experienced web users.



BBC animal experiment –prelim results for GG

- Google Generation quickest searchers, spending least amount of time on a question - fraction of time spent by adults. Fast information generation.
- Knee-jerk 'digital natives' interpretation is young people whizzes at technology, and searching Web as natural as breathing.
- However, by their own admission, least confident about answers. Lack of confidence explained by their behaviour - viewed fewer pages and domains and undertook fewer searches in answering questions.
- Search statements much closer textually to the question posed, making GG 'cut and paste' generation.
- As for multitasking, which anecdote has it they excel, yes they did it, but not well.

BBC animal experiment –prelim results for GG

- Propensity to rush, rely on point-and-click, first-up-on-Google answers, along with growing unwillingness to wrestle with uncertainties and inability to evaluate information, keeps young stuck on surface of 'information' age.
- Speculation about whether the digital making us stupid - damaging the brain! Neuroscientists say changes pattern of connections – introducing new ones and dispensing with old ones, and because of plasticity of young people's brains theirs change more quickly.
- Skittering and viewing having serious consequences for fundamental human skills. Chipping away at capacity to concentrate and contemplate which leads to problems with us (not) reading.

Something to think about

- The rub: we are all Google Generation!
- Need to change/adapt our products and services fast or someone else will
- This will be *the* challenge for you all when we start in your various professions



Stuff to read and view

1. BBC2. The virtual revolution. Programme 4: Homo Interneticus? <http://www.bbc.co.uk/virtualrevolution/makingofprog4.shtml>
2. CIBER. Google Generation Research At University College London. <http://www.ucl.ac.uk/infostudies/research/ciber/>
3. Nicholas D. The behaviour of the researcher of the future (the 'Google generation'). Art Libraries Journal 35(1), 2010, pp18-21
4. Nicholas D, Rowlands I. Editors. Digital Consumers. London: Facet, 2008