

The global virtual scholar

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Background – massive change

- From mediated to non mediated environment
- From bibliographic systems to full-text, visual, interactive ones
- From searching at work to anywhere
- From a few searchers to everybody
- From little choice to massive choice
- From little change to constant change

An immense paradigm shift which has led to...

Consumers grabbing the power

- 2004 was the year in which the digital consumer began to take control of communications.
- The digital revolution is as much consumer driven as it is systems driven
- Experts see scholarly publishing becoming wholly digital, even monographs

This means we have to track the user especially as...

Evaluating the behaviour of the digital information consumer

- ...our existing knowledge base is obsolescent, flawed
- ...when you roll out a digital product globally things never go as planned
- ...you don't even know what questions to ask anymore
- ...currently left generalising about too many people

There is a way of evaluating behaviour of millions of people

By making sense of their digital fingerprints (DLA). The attractions are:

- **Size and reach.** Enormous reach and no need to take a sample
- **Direct & immediately available record** of what people have done: not what they say they might, or would, do; not what they were prompted to say, not what they thought they did
- **Data real-time and continuous.** Creates a digital lab environment for innovation and the monitoring of change

We are doing this with the virtual scholar

- ❖ *Studying the fingerprints of users of some of the world's great digital libraries: ScienceDirect; OhioLINK; Blackwell Synergy; EmeraldInsight; Oxford Open: IoP*
- ❖ *Bring to this conference the evidence several million global scholars provide us with about how they behave in a virtual environment...and what they like*

What have we learnt

"I don't recognise the users you are describing"

That is not surprising, have you ever seen millions of people do something?

Characteristic - *active and very interested*

- **Blackwell Synergy**, 500,000 people used the site in a month; nearly 5 million items (i.e. abstracts, full-text, table of contents) viewed during the same period
- **OhioLINK**, where 6000 journals were made available to 600,000 residents of Ohio (USA) all except 5 were used in a single month
- **Pent-up demand**: two-thirds of EmeraldInsight visitors were non-subscribers, knocking on the door trying to come in; when *Nucleic Acids Research* went Open Access downloads went up by 200,000

Characteristic – *horizontal searchers*

- Shallow searchers, suggesting a checking-comparing, dipping sort of behaviour that is a result of easy access, a shortage of time and huge digital choice. *Flicking*
- 55-65% of users typically view no more than three pages in a visit and then leave to go somewhere else.

Characteristic - *promiscuous*

- A form of behaviour in which there appears to be limited user loyalty, repeat behaviour or build
- Within a year about 50-66% of users did not come back
- They search a variety of sites to find what they want, constantly cross-checking
- Younger scholars and students most promiscuous

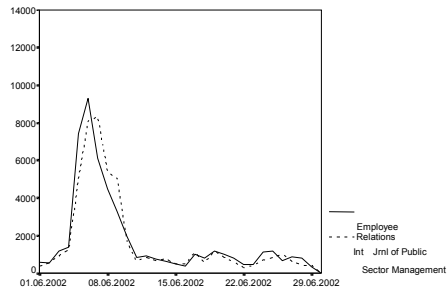
Characteristic - *volatile*

- A *bouncing, checking, promiscuous* and *consumer* form of behaviour creates enormous volatility and unpredictability
- In a survey of more than a 100 UK universities, 14% saw downloads decrease from one year to the next by 25% or more; 32% saw increases of 25% or more

Characteristic – *a shopper*

- Digital visibility very important; there is a sales mentality

Sales mentality (EmeraldInsight)



Characteristic – *short attention span*

- Shorter the article more likely they are to read online; longer the article more likely to read in abstract form only; what happens to the downloads?

Characteristics - *global*

- Yes, in a sense of people from hundreds of countries using the same resource
- No, in that they do use the resource very differently
 - Germans very active online: most searches, view most journals when they search, most requests. Chinese not far behind.
 - Chinese most likely to use PDF and Japanese least likely to. French most likely to look at older articles and the Spanish the current articles. Americans appeared to be relatively poor searchers and Germans the best searchers
 - What is it about the Germans!

Conclusions and implications

- Never really had this grip on our scholars before difficult to gauge scale of change, but it looks very different and believe that academic policy makers are working with outdated models of the scholar
- The digital consumer is the driving force - usage data already being used to buy & cancel titles; and they will determine the fate of the traditional publishing system
- Important we watch and evaluate their every move but not good at using the evidence, too often it's a case of digital concrete and digital fog
- It is the outcomes we *really* need to consider next.