



Scholarly communications in the digital environment

Professor David Nicholas, CIBER <http://ciber-research.eu/>

Trust and authority: the context and challenges

- In today's crowded, dynamic, diverse and **dis-intermediated** digital scholarly environment more difficult to establish trustworthiness
- More sources, channels, platforms, players muddying the water. **Difficult to know whose information it is anymore**
- Very challenging behaviour from the **Google Generation**, the born digital, who are arriving at universities/workplaces. **Skittering.**
- Trust, authority and reliability matters everywhere but are very watchwords of scholarly communication. Built upon quality assurance
- So no better place to look for change and new shoots, especially in the light of challenges from **social media** and new publishing models...which takes us to our research project



Background: the project; first stage (2012-2013)

- Funding for project A P Sloan Foundation; research questions:
 1. How researchers assign and calibrate authority and trustworthiness to scholarly sources and channels used, cited and to disseminated their research; **scholars as consumers and producers**
 2. Whether Google, social media and open access are having an impact on conventional practices of establishing authority and trustworthiness
 3. Differences by age, nationality, type of institution, gender, subject
- Methods: focus groups, critical incident interviews and questionnaire



Personas

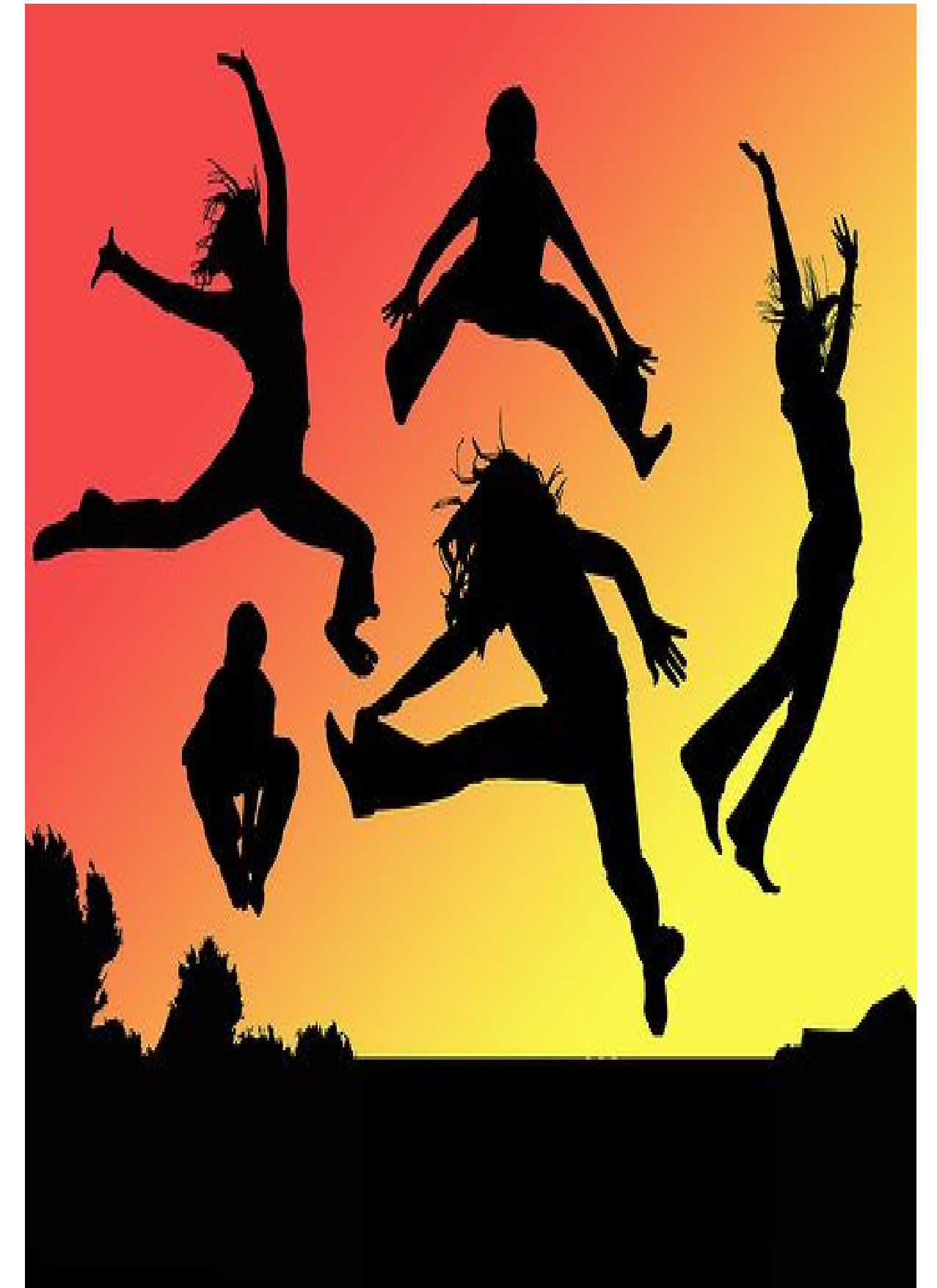
Researchers function as authors, editors, reviewers, citers and users of the literature. **Different trust judgments to bear for each function**

Editors thinking dominated by picture of themselves as information providers, people offering trustworthy collections for others to trust. Police the system and like the way it works

Citation behaviour much stricter, more focussed and more 'political' than user behaviour

Researchers have **more freedom as to what they use** - can use blogs, OA etc. to their heart's content, but not cite them

Dissemination is the biggest quality worry – ranked journals



Metrics and proxies (Impact Factors and the like)

- Scholarly world **governed by algorithms** and consequence creativity and new ideas being driven out by a (high) metric-driven culture.
- **Scientists unquestioning about merits** of metrics; social scientists **uneasy** but felt had no choice; humanities scholars felt **culturally uncomfortable** and alienated, but were part of it.
- Early career researchers in social sciences/humanities thought themselves '**slaves**' to a **metric-based/journal focussed system**; adhere to rules to climb academic ladder but thought ladder broken. Journals a manifestation of all that was wrong with scholarly communications.



Impact and role of social media

Only a few – early career, thought social media was not **a side-show**

Lack of interest explained by **validity problems** but also because:

- a) many were novices;
- b) antagonistic towards it;
- c) no free time;
- d) put off going down that route by the current HE climate;
- e) informal language of social media unsuitable for scholarly discourse.

Saw social media **valuable for**:

- a) obtaining new ideas;
- b) self-promotion of publications (outreach);
- c) passing around refs

Of interest was fact that social media could increase citations



Impact and role of social media (2)

Early career researchers made more use of social media but scared to embrace it and camouflaged use. Benefits:

- a) develop a personal network fast;
- b) facilitates collaboration;
- c) finding researchers to work with (in real-time);
- d) staying in touch with events;
- e) stalking authors



Open access

Distrust of open access from an author and reader perspective.

Some confusion

Distrust diminishes considerably when OA journals published by traditional publisher

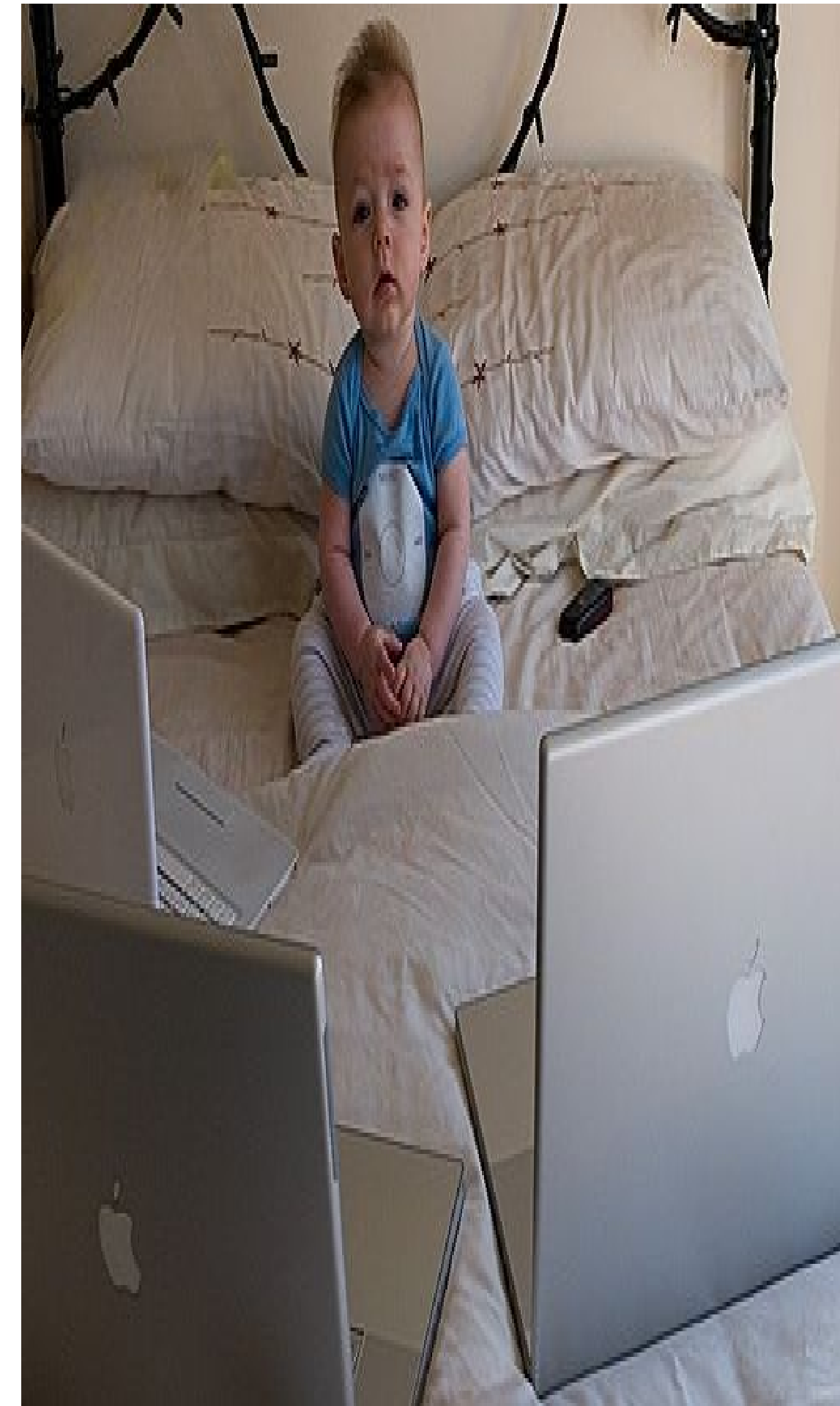
Early career researchers liked *idea* of OA , but scared to embrace because academe not made up mind about it.

If published in OA journal, or cited one, might have backed wrong horse and found had published in a second-rate journal. *Might be a reputation threat.*



Usage

'If I don't recognise the author, then be careful; if additionally you don't recognise the institutional affiliation be even more careful, and if you don't recognise the journal as well, it is definitely not worth looking at'.



Usage: types of sources

Digital sources. Trust enhanced if also available in print. Merits in paper and some associated with quality/reliability. Thus:

- a) paper was thought to provide more confidence because less ephemeral;
- b) there were clear length limitations this focussed the mind and produced better copy.

Early career researchers thought opposite; could not believe anyone would think like that.

Data. Some trust concerns because:

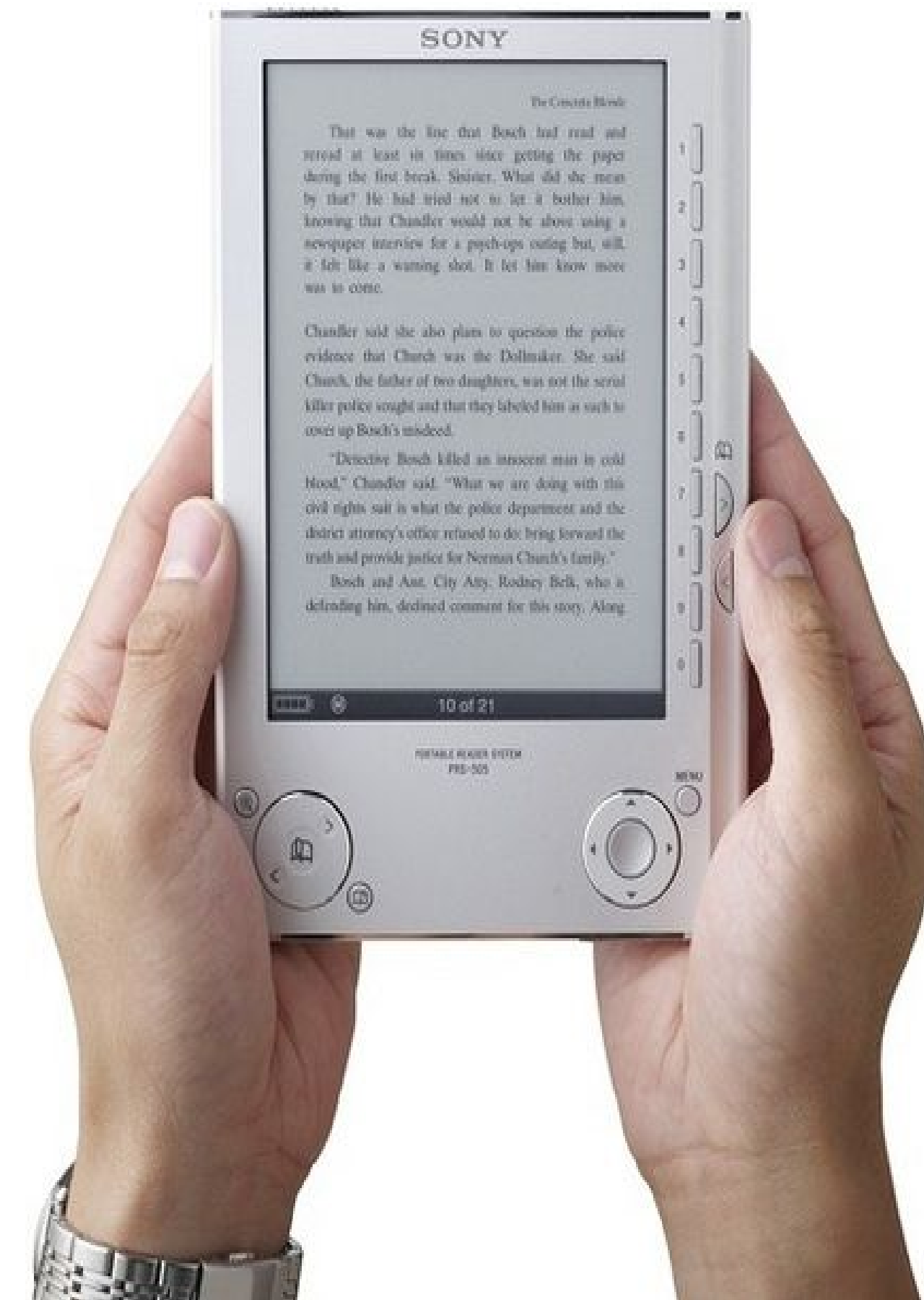
- a) of a presumed absence of peer review; needed because could not decide for yourself given size and complexity of data.
- b) Liked idea of data being attached to an article, the article giving it authority. Also felt that name of the author was even more important in case of data.

Conferences.

- a) peer reviewing mechanisms poor, absent or done on abstract;
- b) increasing number of sharks out there that sully the name of conferences;*
- c) do not have the same visibility and standing, but can attract large number of citations.

Usage: searching

- ‘Trusted’ big fat information pipe not publisher platform or library catalogue; it is the Internet. Hence popularity of Google. Google Scholar thought to be *surprisingly* good.
- Did not mention their publisher’s website, but did mention gateway sites
- **Libraries** mentioned in a nostalgic fashion.
- Libraries, once guardians of quality have to watch.
- Do not see libraries as the point of entry to the information they are looking.
- Libraries seen as *incomplete* sources of information in a borderless information world and open access might be killing their main role for researchers



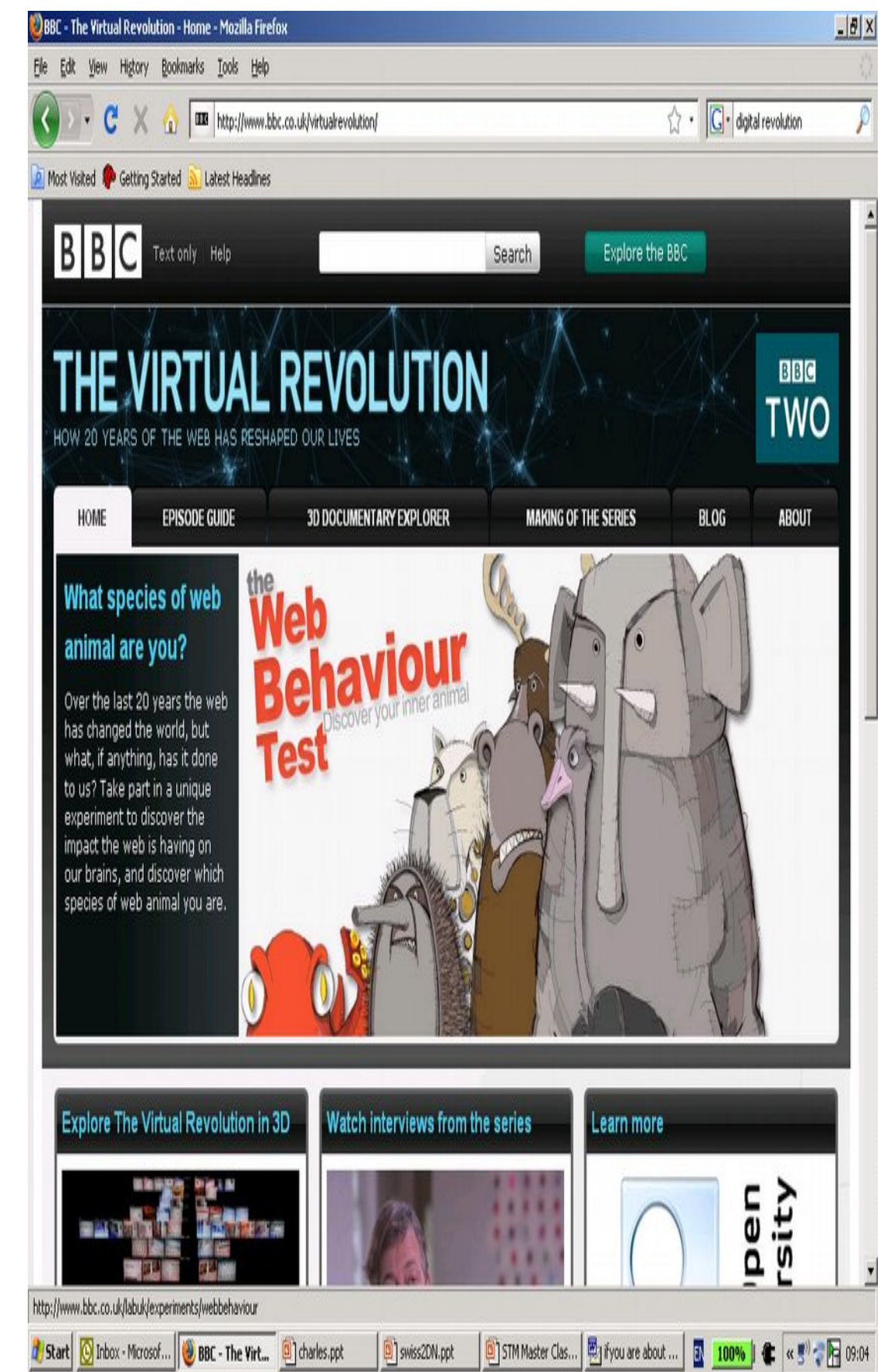
Citing

Authors weigh up sources carefully. There are political issues; only have real choice over a few of your citations. Lot of window dressing

Citation practices/gaming:

- 1) cite own work to raise your H index;
- 2) cite papers in journal to which you submit;
- 3) reviewers ask you to cite their own papers;
- 4) cite very high impact articles because they set the agenda/benchmark and represent the very pinnacles of science (halo effect);
- 5) cite post hoc – use citations to support your position, give your ideas more weight; particularly important if your ideas are novel;
- 6) cite review articles as a bibliographical shorthand.

Know people are gaming because researchers say they don't do it, but know people that do



Citing

Early career researchers.

Pressure from supervisors to cite peer-reviewed articles. *You see interesting things elsewhere (i.e. social media) but you cannot use/cited them.*

Cited social media sources as ‘personal communications’

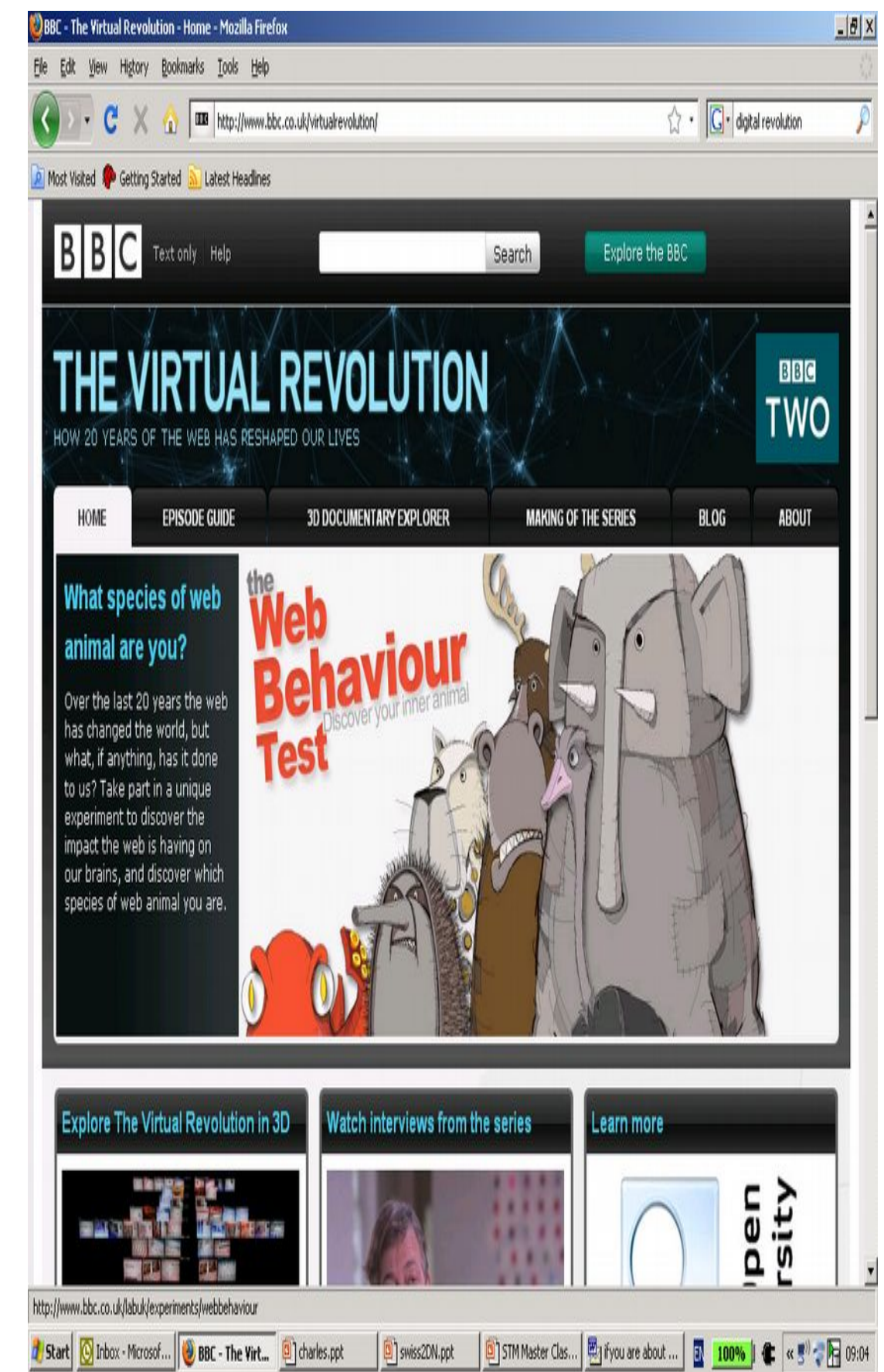
Academics from teaching intensive universities different

Would not cite something they have not read and would cite anything, including trade publications.

Social media.

twitter not used as an information source: it would be like citing a conversation in the bar.

Blogs not to be sourced: many blogs ‘*were just streams of consciousness stuff*’.



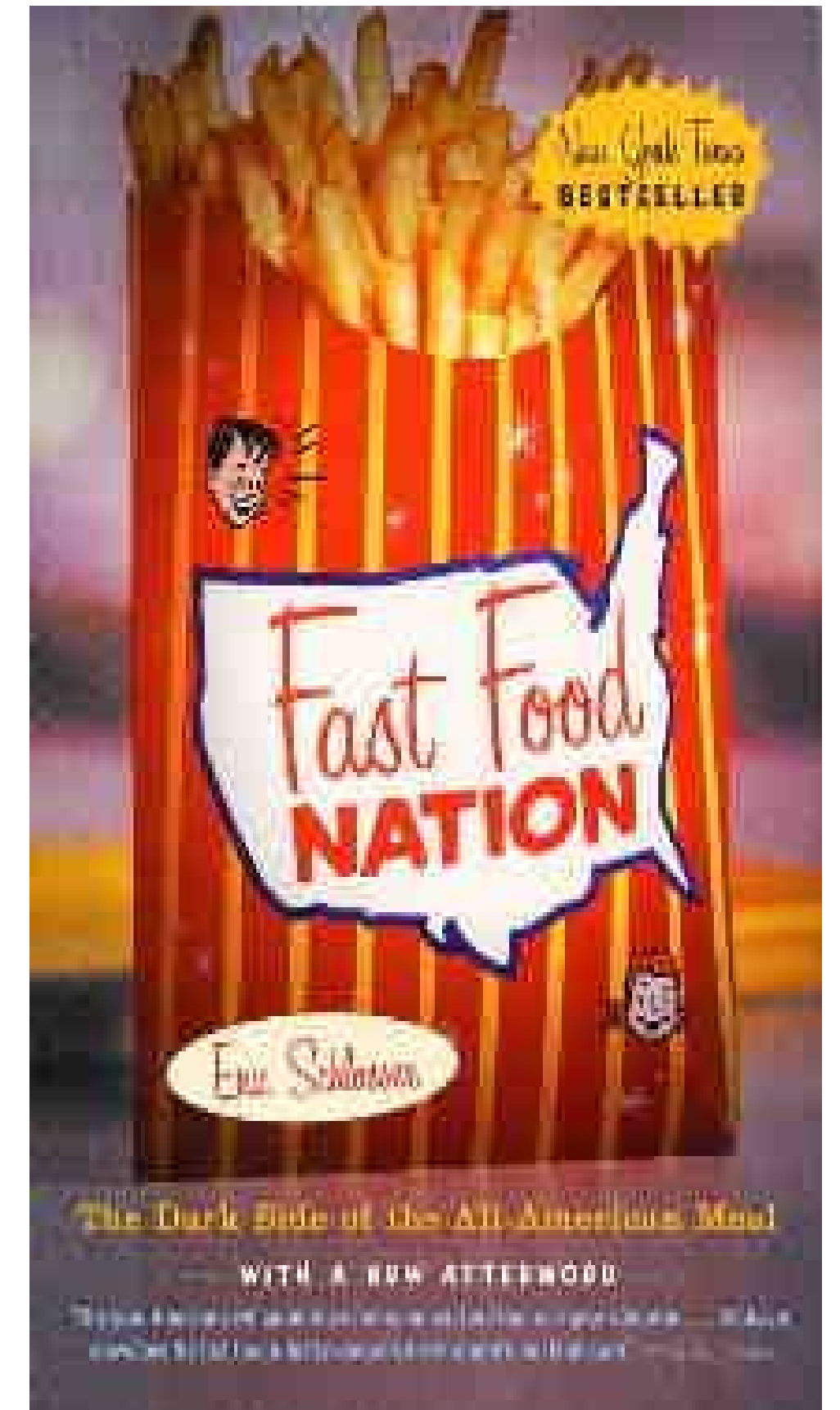
Publishing/Dissemination

Pressures to publish - impact on quality.

- Biggest concern not growth in literature, but what is driving growth : the increased pressure to publish.
- Creating an '*avalanche of bad/mediocre journal articles*'...And '*there is a huge amount of junk floating around the system.*' Manifests itself in big article rejection rates '*50% are rubbish*', mostly from developing countries

Massive influence of REF (in UK):

- REF is all-pervading and persuasive.* REF says don't go on citation scores of submitted paper but no-one believes this and continue publishing in high impact journals. Leads to a distortion where articles should be placed. Penalising inspirational and creative academics
- REF guilty of forcing people to publish more than they otherwise would, something which leads to higher levels of poor content being published.



Publishing: peer review

Few thought that review process broken. Early career researchers least fond

Publishers. Organising peer review central role of publisher.

Rejection rates. Badge of honour/quality.

The practice

a) liked blind reviewing - reviewers freer to comment;

b) mixed opinions about benefits of author-suggested referees;

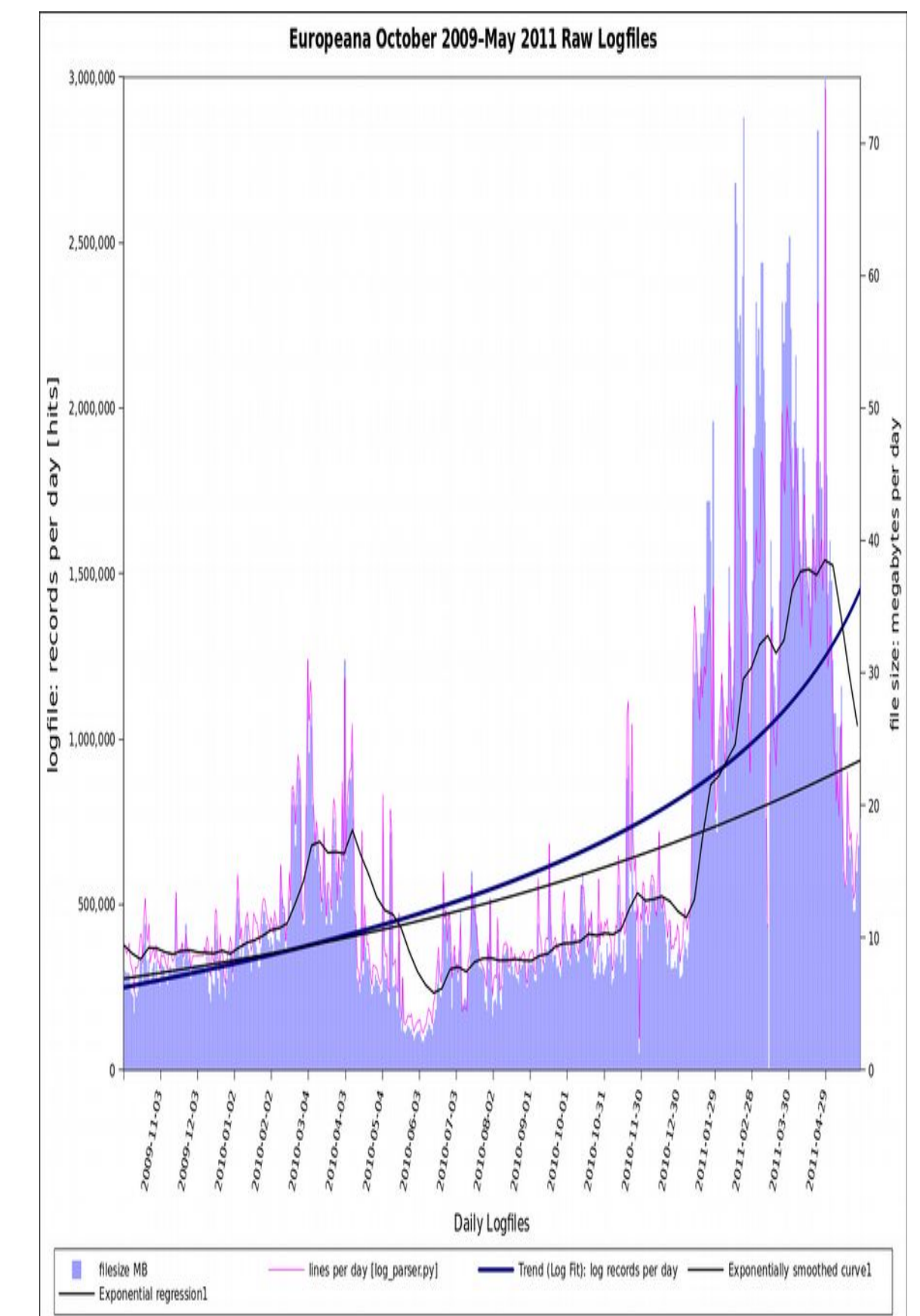
c) light touch peer review not liked; heavy leads to better papers;

d) editors should be ultimate judges; be proactive and not always heed reviewers;

e) referees improve an article even if they rejected it.

Dislikes: too slow. Need to obtain decision in 2 months; weakness predatory OA publishers take full advantage of (in their advertising, if not in reality).

Concerns: *quality is being sacrificed. [for speed]*



Publishing: Plagiarism and unethical practices

Plagiarism. With article avalanche comes *dodgy* content. More rife and widespread than thought.

While early career researchers agreed plagiarism was a no-no, they were less antagonistic towards cut-and-pasting, providing attribution given.

While academics from teaching-intensive universities were not supportive they were not that hard on it. Thought it was a fuzzy area and understood the reasons/pressures for doing it. Self-plagiarism was a less serious offence; maybe not an offence at all.

Publisher data shows plagiarism and duplication detected down from 30% to 10% in last 3 years. CrossCheck

Making it up/fabrication. Everyone knew cases. Big pressure to do so in some parts of the world. It was alleged it could be as much as 10-20% in biological sciences. Difficult to establish.

Publishing: Open access

Few researchers admitted to OA publishing. Imposed (political), rather than actually needed. *It's open anyway.* Few realised traditional publishers produce OA articles

Worries:

- Poor quality. *'Rubbish' 'vanity publishing', 'self-deluded authors'. 'Why would you want to (pay to) publish in something in a start-up, which is easy to get into and has no reputation.'*
- Business model undermines rigorous review; concerns about possible two track peer review, with OA articles being treated more leniently because of payment;
- Uneasy about author pay model that underpins gold OA . Passing of money sullies the transaction. Concern that you could pay your way into publishing;
- Poorly run and unprofessional. *Fails to recognise that there is a good deal of professionalism and standards behind publishing;*
- Concerns that academics might **have to** publish in OA journals and subscription journals might end up featuring different content and authors.

Change: better/worse than a decade ago?

More bad/mediocre stuff around because;

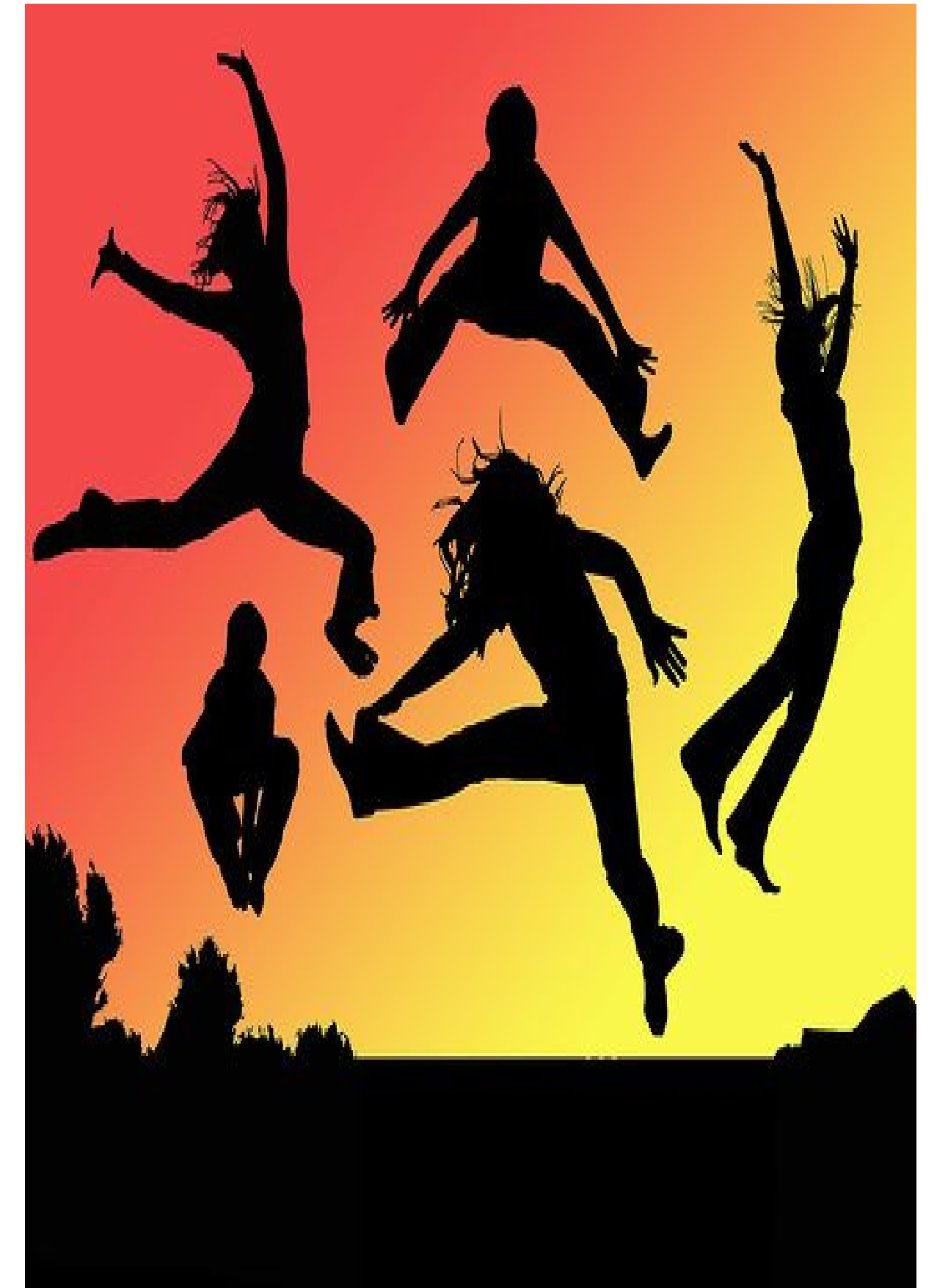
- a) more accessible
- b) more opportunities to publish

But thought that quality had risen over the years. Rise in quality meant could live with bad and boring stuff and overload

Rise in quality result of more people entering field and greater competition that comes with it. Niche/specialist journals that have taken full benefit of an abundance of run-of-the-mill material

'There is a massive sea of mediocrity now because it is just easier to publish, but at the higher end the quality is better because of better training, greater competition and rewards for publishing'

But didn't want any changes, they liked disintermediation



Conclusions

No surprises?

- Play down difficulties of establishing trustworthiness in virtual world, not because none, but because have well-developed methods of establishing trust.
- Citation-derived metrics becoming more important in regard to where researchers publish
- Social media ancillary to research activity used largely, and helpfully, for promotion of research and, perhaps, more importantly, for idea generation.
- Suspicious and confused about OA publication, but less so if produced by a traditional publisher

Surprises

- Might expect discipline differences, but minor; the main difference being scientists were happier with existing system – after all it apes their behaviour.
- Some evidence that while early career social science researchers behaved the same because of a fear of system, they actually think differently. Is this the first sighting of the tsunami?
- **Researchers believe more untrustworthy stuff around but also believe that more good stuff around.**