



Trust and authority in scholarly communications in the digital environment: focus on young researchers

David Nicholas and Anthony Watkinson, CIBER <http://ciber-research.eu/>

Trust and authority in scholarly communications: the issues

Have things changed as a result of the digital transition? After all:

- In today's crowded, dynamic, diverse and dis-intermediated digital scholarly environment it is **more difficult to establish trustworthiness**.

- There are more sources, channels, platforms, players muddying the water. **Difficult to know whose information it is anymore**

- Trust, authority and quality matters everywhere but are the very watchwords of scholarly communication, **built upon quality assurance**. So changes, a diminution even, really matter

- There is that challenging behaviour coming from the **Google Generation**, the born digital, who are arriving at universities/workplaces as I speak. Skittering, first one up, easy searching and limited evaluation skills; what do they regard to be trustworthy?



Background to project

Research questions:

1. How researchers assign and calibrate authority and trustworthiness to scholarly sources and channels used, cited and to disseminate 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. Determine differences by **age**, nationality, institution, gender, subject

Methods: logs, focus groups, critical interviews and questionnaire. Robust evidence base on behaviour of thousands of researchers and the most recent data we have. Bias towards existing system because of recruiting methods?

Scope: US and UK, but international questionnaire; academic researchers.

Main focus: young researchers (about 400) and how differ from (about 3300) older researchers.



Young researchers

Young/early career researchers (20 - 30). Generation Y (born 1977-1994). Not quite the Google Generation, but as close as you can get in researcher/author terms. Includes PhD students, lecturers and research assistants.

A community of interest because:

- they are the new wave
- spent much of their lives in a digital environment and, perhaps conditioned by it
- alleged to be "detached from institutions and networked with friends" and "have distinctly different behaviours, values and attitudes from previous generations as a response to the technological and economic implications of the Internet"

So what does the wave look like; how different are they from their more established and seasoned colleagues?



Usage and reading behaviour

In deciding what to use young researchers, compared to older ones, rated on average the following activities to be **more** important:

- reading the abstract
- checking whether the source was indexed by an authoritative indexing body (e.g., ISI, PubMed); checking name of the publisher
- checking its IF

And these activities to be **much** more important:

- checking to see how many times item was downloaded
- checking where it was obtained from (e.g., publisher's website, library catalogue)
- taking account of colleagues' opinions.

In contrast researchers **over 30** thought the following **more** important:

- checking if the data used in the research were credible
- checking if the arguments and logic presented in the content were sound.

And this to be **much** more important:

- checking to see if source was peer reviewed.

Younger researchers, having to learn scholarly ropes, rely more on trust markers, document proxies and the advice of colleagues. Older researchers connoisseurs & more able to make their own judgments, although peer review an important prop, but not for young. For young researchers the badge of trust is IF, for senior researchers it is peer review.

Ease of access

Young researchers agreed **more** strongly that:

- if the information was not central to their specialism, the ease of availability of a source was more important than its quality.

And **much** more strongly that:

- when pressed for time, the ease of availability of a source over-took considerations about its quality.

Seems clear that younger researchers expend less effort to obtain information, so they were more likely to compromise the quality.

In some of the focus groups, this tendency was alluded to by senior researchers. They saw younger researchers as a work in progress, still needing mentoring. It could be that the younger researchers quite understandably lacked the confidence in their own judgement, which was so much a feature of the behaviour of mature researchers.

Dissemination/publishing

In regard to choosing an outlet for publication or dissemination, young researchers considered the following attribute **more** important:

- indexed by reputable/prestigious abstracting/indexing databases.

And these to be **much** more important:

- it was open access
- it was highly cited
- it was based in a country known for the quality of its research.

In comparison those over 30 considered following attributes to be **more** important:

- it was published by a traditional scholarly publisher.

And these **much** more important:

- it was peer reviewed
- it was published by a society

Clearly young researchers were more positive towards open access as it offers more choice and helped to establish their reputations more quickly, although aware of career risks; and again, they are influenced more by trust markers, like citations.

Dissemination/publishing

Young researchers agreed **more** strongly than their older colleagues with these statements:

- **My own website** is central for ensuring the reliable dissemination of my work to my target audiences.
- I tend to publish first in a **subject repository**, because it is a reliable way to reach wider audiences.
- Depositing a version of my work in an **institutional repository** increases **use** and helps build a professional reputation.

And **much** more strongly with these statements:

- I use **social media** to get out information about my research because it is a reliable way to reach my target audiences.
- Depositing a version of my work in **institutional repository** increases **citation** and helps build a professional reputation.
- I tend to **blog** about the findings of my research, which is a good way to test the veracity of my ideas.
- I tend to publish first in a **conference proceeding**, which is a good way to test the veracity of my ideas.

On the other hand older researchers agreed **more** strongly with:

- I publish in **journals** because a paper placed in a journal obtains a context, becomes part of a general 'conversation'.

Young researchers used all outlets available in order to get work published and in this respect made most use of new digital services. Possibly older researchers believed more in a journal economy, younger ones in an article economy.

Citing behaviour

Young researchers though the following practices **much** more characteristic of their discipline:

- Citing papers in journal to which an article is submitted for publication to increase chances of acceptance.
- Citing papers mentioned by reviewers to increase chances of acceptance.
- Citing non-peer reviewed sources (e.g., personal correspondence, blogs, tweets).
- Citing a pre-print which has not yet been accepted by a journal.
- Citing sources disseminated with comments posted on a dedicated website (open peer review).
- Citing, if possible, only sources published in developed countries.
- Citing the published version of record, but reading another version found on the open web.

And also felt more **much more** strongly that:

Journal Impact Factor is important for deciding what to cite.

Younger researchers not surprisingly more willing to use any devices to improve their chances of acceptance and were much more liberal in their citation behaviour generally. Quite likely citing for them was about getting a foot on the ladder, making their own imprint and perhaps they are being simply more honest and less political.

Changes to the scholarly environment

Young researchers believed **more** strongly that:

- There are more outlets, it is easier to get published and as a result, there is a flood of poor quality material.
- There is a less strict/ less rigorous peer review process and as a result, there is a flood of poor quality material.

And **much more** strongly that:

- More researchers entering the field have raised standards.
- There are more unethical practices around (e.g., plagiarism, falsifying, fabricating, citation gaming).
- Easily available metrics make the evaluation of trustworthiness easier
- Closer ties with researchers in my field enabled by digital communication make it easier to judge the trustworthiness of material.

Young researchers were highly appreciative of the greater availability of quality filters, but it is not clear why younger researchers are so pessimistic about standards, quality and decency.

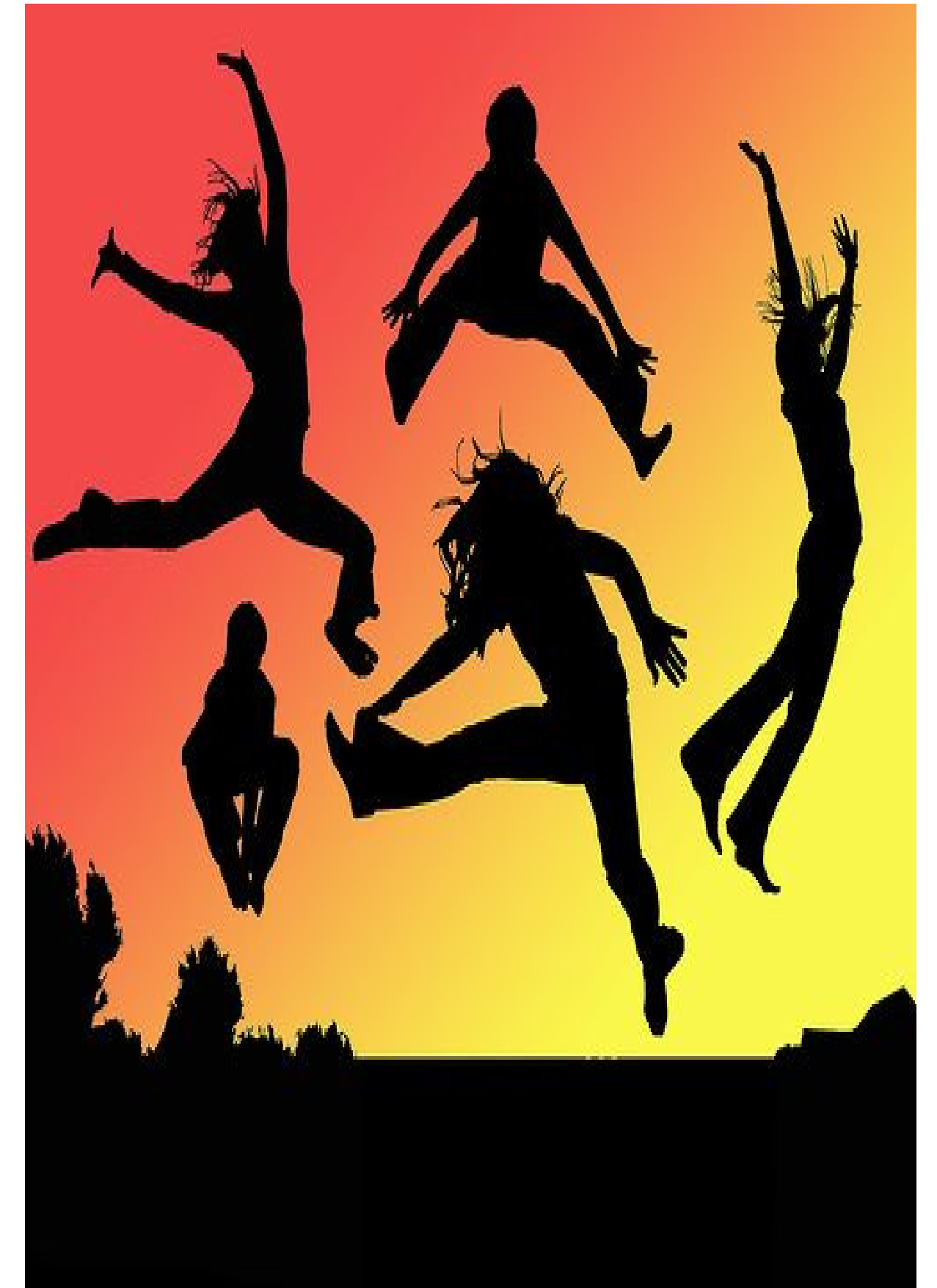
It could be that the new generation of researchers, born into the realities of a postmodernist society characterised by a plurality of values, diversity, change and melt-down of authorities, take a more sceptical attitude to scholarly standards and measures of quality assurance in general?

They seem to take the good with the bad; acceptance in a borderless information world the only strategy.

The common ground: what did they agree most on?

These statements:

- I am very likely to read an article recommended to me by a colleague
- I have no problem citing an article published in an Open Access journal if it has been properly peer reviewed.
- I have no problem publishing in an Open Access journal if it is properly peer reviewed.
- To obtain research grants I have to publish in highly ranked journals.
- Usage metrics are indications of popularity only, not credibility.
- Open Access journals make trustworthy research information accessible in countries where journal subscriptions cannot be afforded.



Focus on Social media

Early career researchers, especially social scientists and humanities, made more use of social media, but scared to fully embrace it. For them the main benefits were:

- a) Fast track the development of a personal network;
- b) Facilitates collaboration among researchers;
- c) Finding researchers to work with (in real-time);
- d) Staying in touch with events;
- e) Stalking authors;
- f) Taking full advantage of 'dissemination plus world' they were part of.

Relates closely to the need for researchers to build up their own circle of trust, relationships with people they confidently share their findings with, and keep up to date with changes in specialism



Focus on social media

Despite aforementioned advantages young researchers were reticent to contribute too much to the social media, largely because they did not want to let themselves down/show immaturity.

Worried use of social media could have a negative impact on career development:

“It is so easy to comment today and in the digital world the record it always there. So, say you said something premature or immature twenty years ago, it could come back and bite you at a crucial time in your career development.”

Acknowledged social media was open to ‘grandstanding’, self-publishing and promotion, but, is this not all part of climbing the academic ladder?

Older social science researchers used social media to derive new/fresh ideas and for outreach – to connect to the public and practitioners.



Conclusions

Key characteristics of young researchers

- Much bigger reliance on metrics, Impact factors and abstracts. Love quality filters.
- Expend less effort on finding information in conventional information systems
- Much more liberal in citation behaviour
- Much more positive in respect to Open Access publications
- Happy to disseminate on a wide range of platforms, including social media
- Social media has a key role in building communities of interest
- Very pragmatic: take the good with the bad

Conclusions (cont.)

Will social media change research and publication processes?

On the basis of the evidence the answer has to be it is more a case of enhancing the existing system: online communities are the key component in all matters of trust and online communities are more easily/quickly built and maintained through the social media. They also provide a huge free PDF warehouse. Fast bag pick-up. And then there are the European Commission policy edicts fast forwarding us into a scholarly world they have envisaged.

The wedge?

So what about the younger researchers and the transformational desires of some of them? Do we see them as the thin end of the wedge? It has to be said that the jury is out, but clearly they are more sceptical. The wedge also seems to be largely populated by young social scientists and, possibly, humanities scholars. There might be a hammer hitting the wedge

More information at

http://ciber-research.eu/download/20140115-Trust_Final_Report.pdf