Social media and scholarly workflows

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About the Charleston Observatory

Engaging the library and publishing communities

The Observatory, established in 2009, is a mechanism by which the exciting ideas raised at the Charleston Conference can be researched and the results reported back to provide continuity and build.

It is a place where evidence can be collected globally in a robust manner and where all the key information stakeholders (librarians, publishers, agents and academics) can come together and share data for the benefit of all.

The Observatory's first project, sponsored by ebrary and Baker & Taylor and undertaken by CIBER, was the impact of the world-wide recession on libraries. The research received widespread acclaim and was published in a number of international journals and cited in the Chronicle of Higher Education and The Scientist amongst others.
Aims of this study

Understanding social media and research workflow

Aims
Are social media impacting upon researcher workflows?
If so, how?
How influential are age and other factors in shaping the demand for social media?

Research design
Online survey
Focus group interviews
University of Edinburgh
Imperial College London
University of Manchester
Taylor & Francis
About the survey
A global survey of facts and opinions

Key facts
2,414 researchers in 215 countries in arts and humanities, business, and the natural, physical and social sciences responded. The response rate was around eight per cent.

Research partner and sponsor
Emerald

List contributors
Cambridge University Press
Charleston Conference
Taylor & Francis
University College London
Wolters Kluwer
About the survey
A global survey of facts and opinions

Key facts
The survey is based on a `non-probabilistic convenience sample': it does not set out to represent social media use across the academy. The invitation deliberated encouraged existing users to respond.

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About the survey

A global survey of facts and opinions

Key facts

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The main focus of this presentation

1,923 users

Contrast group

Research partner and sponsor
Emerald

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Cambridge University Press
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Wolters Kluwer
Most popular social media in research
A big gap between awareness and use

How to read this graphic
This chart shows the percentage of SM active researchers within each software category and their use and awareness of various tools.

Key findings
There is a big gap between awareness (orange) and actual use (green) in all eight categories. With one exception - collaborative authoring - social media have not yet made big inroads into researcher workflows.

People like me need to be persuaded of the added benefits of Web 2.0 before we are prepared to invest in learning these skills.

I definitely see their potential but they aren’t necessarily essential …

Yes, I have used in my research
No, but I am aware of these tools
No, I don’t know anything about these tools
Use of social media tools

Few people use more than two sets of tools

How to read this graphic

This graphic shows the percentage of respondents who use just one or more types of social media tools (defined by the categories used in the previous slide).

A majority (63.4 per cent) of social media active researchers use tools from just one or two categories.

The strongly correlated pairs of tools are:

• blogging and microblogging
• microblogging and social networking
• microblogging and social tagging
Most popular social media in research

*Generic services rule*

**How to read this graphic**

Respondents were asked which specific social media tools they used most often *in their research.*

The font sizes opposite are scaled to the number of mentions for the top 24 products.

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**Key findings**

Researchers tended to mention well known free generic products (like Skype, Google Docs and YouTube) rather than bespoke tools developed specifically for the academic market, like Mendeley or CiteULike. A triumph of marketing over content? A gap in the market for simple to use bespoke tools?

The main problem is that there are just so many different options all developing so fast that it is simply bewildering and not worth the effort of setting up anything unless it is secure, permanent and broadly accepted.

We don’t need monolithic branded platforms, we need small simple tools that are in open format.
The research life cycle
Where do social media fit?

My way of doing research has changed enormously since the advent of Web 2.0. I cannot imagine doing research or teaching without it. The challenge for us all is to find the best Web 2.0 tools to use, and to remember that they are there! We need to make sure that academic research does not gather dust in old books at a library, but rather seamlessly blend with the people who make it, the people who will benefit from it, and the people who will read it.

I think people are too afraid somebody will steal their ideas and they’re too stressed about starting to use this available technology. There seems to be a presumption that because you can, you must ...

The flood of technology and the often lack of support, force scholars to be their own tech support or be left behind.
The research life cycle

Social networking ticks lots of boxes

How to read this graphic

This table shows the most popular (modal) responses to a series of questions about how useful researchers find social networking at different points in the research life cycle.

<table>
<thead>
<tr>
<th>Social networking and the research life cycle</th>
<th>modal values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify research opportunities</td>
<td>Not at all useful</td>
</tr>
<tr>
<td>Find collaborators</td>
<td>Not at all useful</td>
</tr>
<tr>
<td>Secure support</td>
<td>Not at all useful</td>
</tr>
<tr>
<td>Reviewing the literature</td>
<td>Not at all useful</td>
</tr>
<tr>
<td>Collecting research data</td>
<td>Not at all useful</td>
</tr>
<tr>
<td>Analysing research data</td>
<td>Not at all useful</td>
</tr>
<tr>
<td>Disseminating research findings</td>
<td>Not at all useful</td>
</tr>
<tr>
<td>Manage the research process</td>
<td>Not at all useful</td>
</tr>
</tbody>
</table>

Key findings

Social networking clearly offers a lot more than just another channel for disseminating research findings. Researchers find these tools useful across the research life cycle, with the exception of analysing research data.
The research life cycle

Social networking tools

How to read this graphic
The spokes of the wheel are stages of the research life cycle. The scale is average perceived usefulness, in this case for social networking tools, by those who actually use them.

The scale is
1=Not at all useful
2=Somewhat useful
3=Very useful
4=Extremely useful
The research life cycle

Scheduling tools

Managing the research process
Disseminating research findings
Analysing research data
Collecting research data

Identifying research opportunities
Research collaboration
Securing support

- Arts, humanities and social sciences
- Business and management
- Biosciences and health
- Natural sciences, engineering and technology
The research life cycle

Microblogging tools
The research life cycle
Social media find broad application in the research life cycle

How to read this graphic
This is basically a Word table with colours representing how useful researchers find the tools (the columns) at each stage of the research life cycle (the rows). Green is very useful, amber and red less so.

Key findings
This composite picture shows that social media find broad application across the research life cycle (lots of green and amber) and generally in ways that we would expect, like e-conferencing being used to support research collaboration and management.

Looking across the rows, there appears to be a real need for simple tools to support the analysis of research data and perhaps easier ways to identify grants.
Perceived social media benefits

*Does visibility drive esteem?*

**Key findings**

The main perceived benefits (ease of communication across national borders, quickly and to a wider audience) are no surprise. There is little consensus around whether social media help to deliver greater esteem or more citations as a result of higher digital visibility.

*How to read this graphic*

The numbers opposite are average agreement ratings on a scale where 1=Strongly disagree and 5=Strongly agree.

1. Communicate internationally: 4.23
2. Faster dissemination: 4.07
3. Connect with people outside the academy: 4.05
4. Ability to target research communities: 3.95
5. Greater access to research content: 3.92
6. Ability to cross disciplinary divides: 3.84
7. Attract more citations: 3.57
8. Greater esteem through higher visibility: 3.54

I doubt that Darwin's thoughts would have been greatly improved by twittering.

I have very little trust in things published on the web from open sources unless I know the person. There are too many hidden agendas.
Social media drivers
A curiosity-driven phenomenon

How to read this graphic

The numbers opposite are average ratings on a scale where 0=Not at all influential and 4=Extremely influential.

Key findings

Take up of social media seems to be mainly driven by curiosity. Management initiatives feature much less highly. It's a jungle out there!

I've used dozens of tools over the years and there are very few ‘keepers’... I wouldn’t hesitate to experiment with something new if circumstances called for it.

I use them because I’m stuck using a computer for much of my work and it’s sometimes nice to take a break.
Social media enthusiasts

Differences by age group

How to read this graphic
The numbers opposite are the percentages within each age band that use selected social media in their research.

Key findings
There are differences between the age groups with regard to their use of social media, but the picture is complex. This does not surprise CIBER, we have been saying for years that age-related differences in information behaviour are not simply explained by age. The future is now!
Social media enthusiasts
Differences by technology innovation behaviour

Key findings
Roger’s model of technology adoption seems to offer a good predictor of social media take-up.

This has big implications as the early and late majority catch up, as they will. These are large groupings. The dam is about to burst!

How to read this graphic
The numbers opposite are the percentages within each technology adoption type that use or do not use selected social media in their research.
Emerging technology preferences

Key findings
The overwhelming preference is for mainstream anchor technologies – libraries and publishers need adapt to the winning technologies.
Emerging research preferences

How to read this graphic
This graphic identifies the pulse points as far as social media are concerned. These are the three areas where our respondents found social media to be very or extremely useful overall.

Observations
There are real benefits where social media support the research process. The core of the research process is not well supported by social media.

There are opportunities for the development of research workflow tools.
The change zone

Key questions
The green are the early adopters – where are the yellow zone going? That is the question for both librarians and publishers.

Which areas will grow fastest?
Is blogging and social tagging always going to be a minority activity?

What will be the preference for social media tools? Mainstream or specialist? Utility will determine adoption.

The researcher of the future?
Conclusions

• Social media have found serious application at across the research life cycle.

• Awareness of social media is high, but there is a large gap between awareness and actual use for the majority of tools.

• Few researchers are using more than one or two social media tools.

• Age is a poor predictor of social media use in research and a ‘digital native’ narrative is difficult to sustain. Roger’s model of technology adoption offers are far better predictive model.

• Researchers are generally using mainstream anchor technologies, like Facebook or Flickr, in a research context. Work and home are merging.

• The key driver is pressure exerted by peers outside of the researcher’s own institution.

• Users and non-users of social media express almost identical preferences when they look for scholarly information, and they value traditional dissemination outlets like the journal article equally.

• It is clear that social media users see informal tools as a complement to the existing scholarly communications system, not a replacement.
Further reading


David Nicholas, Anthony Watkinson, Ian Rowlands and Michael Jubb, Social media, academic research and university libraries in the UK, *Journal of Academic Librarianship* [accepted for publication].