The changing scholarly communications landscape
What does this mean for peer review?

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Outline

- Traditional journal publishing and the cost of peer-review
- Changing scholarly communications landscape
- Social media
- The emergence of data as a publication
- Some food for thought
Traditional journal publishing and the cost of peer review
UK Journal Article Publication and Distribution Costs

First copy cost £244.1

Activities, costs and funding flows in the scholarly communications system, RIN, May 2008
The changing scholarly communications landscape

- Move to electronic and open access publishing
  - Author-pays, pre-prints, post-prints
- Increase use of social media for dissemination and access of information
  - Blogs, twitter, YouTube etc.
- Publishers are also thinking of new and innovative ways of adding value to their publications
  - Publishing research data, linking to existing data bases, and enhanced annotations
  - Comment, moderate, and rating systems
    - Peer review
    - Difficult to get people to respond
New forms of peer review – some examples

- PLoSOne
  - 2-stage assessment
  - Handling editor is acknowledged
- PLoSCurrents Influenza
  - Expert panel screens submissions
  - It is expected that the information will be ‘officially’ published at a later date
- arXiv
  - Combination of moderators and endorsements
- EMBO
  - Publish the ‘Review Process File’
  - Reviewers remain anonymous
- BMC Medicine
  - Publish the pre-publication history
  - Reviewers are not anonymous
- F1000
  - This is not a journal it is a “literature awareness tool”
  - Experts in the field evaluate and comment on the most interesting papers they read each month – review peer reviewed journal articles
Social Media

- Blogs
  - valid because a number of people follow them?
  - link to peer-reviewed literature? researchbloging.org
  - Is there a role for the institution?

- Wikipedia, WikiGenes
  - actively encourages people to edit and improve the quality of the post
  - WikiGenes requires you to cite where you have got that information from when you post it

- Twitter
  - The problem of retweeting and only having 140 characters
The emergence of data as a publication

- There is a move toward the publication of research data
  - Either as a supplement to an existing article, as an independent publication, or archiving it in a database
- Currently data that is archived is generally not subjected to peer review
  - The data creator is responsible for ensuring the quality of data
- Personal knowledge of how the data were collected and analyzed greatly influences one trust in the data
  - This can be increased with good quality metadata that describe the origins and how the data was processed
- Currently there are a number of discussion on the need/feasibility of formal peer review for data
Some food for thought

- Does discipline have an affect on the type of peer review?
- Does the type of publication influence the type of peer review?
- Why don’t commenting and rating systems work more effectively?
- Is a new system of peer review required for blogs and other social media?
- Can data be peer reviewed the same way as a journal article?
- How do we assess the quality of metadata?
- Are there training implications for researchers?

How will the changes in the peer review process affect the public understanding (trust) of science?
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UK Costs of Scholarly Communications

£ Billions

- Research production: 6.23
- Publishing & Distribution: 0.43
- Access provision: 0.07
- User search and print cost: 0.54
- Reading: 1.34
- Total: 8.61