Maximising the value of research outputs: a funder perspective

STM Beyond Open Access Seminar
5 December 2014

Dave Carr
Wellcome Trust
d.carr@wellcome.ac.uk
Sharing research outputs: the Wellcome Trust’s position

• support research with the vision of achieving extraordinary improvements in human & animal health

• want the outputs of research we support to be accessed and used in a way that maximises benefits to health & society

• long-standing policies on open access publishing and data management and sharing
Our policies...

• Open access policy
  - all papers openly accessible via Europe PMC within six months of publication
  - provide dedicated funding for gold OA APCs
  - Require CC-BY licence where we pay APC

• Data management & sharing policy
  - maximise access to research data with as few restrictions as possible
  - require data management & sharing plan, where research likely to generate data of value as a resource for the community
  - meet costs as integral part of grant

• Software: coming soon!
Increasing policy momentum

• Strong convergence of funder policies in terms of:
  – mandating open access to research publications
  – requiring data management plans

• Growing high-level policy consensus (e.g. European Commission, OSTP, G8 Science Ministers Statement)

• Context of political focus on maximising economic potential of ‘big data’ and ‘open data’

• But recognition significant challenges to overcome
Working in partnership to drive change

- Charity Open Access Fund – six UK medical research charities providing funding to ensure immediate open access to funded research

- Public Heath Research Data Forum – global cross funder initiative to increase access to research data generated by public health and epidemiology research

- Clinical Trial Data – funded programme of work with IOM and seeking to build an international consortia to support access to trial data
Why is openness so important?

• Enable validity and reproducibility of research findings to be assessed
• Increase the visibility and use of research findings
• Enable research outputs to be used to answer new questions
• Reduce duplication and waste
• Makes outputs accessible to patients, policymakers, healthcare professionals & wider public
Example 1 – enabling re-use of content

- Making content that we fund and produce openly available – enables it to be accessed and re-used by a wider audience
  - OA articles downloaded more – 89% more downloads when compared with access-controlled content
  - Wellcome Images downloads – increase of 709% in downloads
  - Mosaic Magazine
    Menstrual taboos article:
    30k views at Wellcome
    334k views at Jezebel + 650 comments

Wellcome Images, CC-BY, L0031713
Examples of re-use: “promiscuous content”

GIZMODO

The Science of Female Condoms: The Future of Sex?

Once derided as being like a plastic bag with the erotic appeal of a jellyfish, the female condom is being reinvented in safe sex. Emily Anthes investigates.

1. Excitement

Content available from multiple platforms
Examples of re-use: translation

Female condoms article – translated into Spanish; reaching a new audience
Examples of re-use: re-packaging

Scientists are learning new things every day. They are also writing about their discoveries. In most cases they publish in science magazines called journals like the Public Library of Science (PLOS). In PLOSable, you will find stories that will help you read and explore the articles written by scientists.

Now jump in and start exploring PLOSable Biology - a place where firsthand science is only a mouse click away.

A Wind-Win with Wind
By Melanie Sturm

What we think about using the natural power of the earth. Like sun or wind; we don't usually think about how this might hurt animals. But researchers are finding that we can use sustainable energy while still living care of our flying friends.

Amoeba Families Stick Together
By Ben Perote

Families are important to many animals, but are they also important to organisms made of just one cell? For amoebas, the ability to recognize relatives can make the world of difference.

Are Plankton Ocean Super Stars?

http://askabiologist.asu.edu/explore/plosable

http://commons.wikimedia.org/wiki/User:Open_Access_Media_Importer_Bot

Re-packaged content for different and new audiences
Example 2 – sharing data to improve health: the INDEPTH network

- brings together 49 health & demographic surveillance systems (HDSS) sites at 42 research centres in 20 LMICs
- launched INDEPTH data repository & statistics resource, and actively building data sharing platforms across network via iShare2 project.
- network has enabled landmark studies to enhance policy & practice:
  - effectiveness and safety studies of antimalarials in Africa (INESS)
  - optimising impact and cost-effectiveness of child health intervention programmes of vaccines and micronutrients in LMICs (OPTIMUNISE)
  - studies of epidemiology of epilepsy in demographic sites (SEEDS)

Parasites and poor antenatal care are the main causes of epilepsy in sub-Saharan Africa, study reveals

31 January 2013

The largest study of epilepsy in Africa to date reveals that programmes to control parasitic diseases and access to better antenatal care could substantially reduce the prevalence of the disease in this region.

http://www.wellcome.ac.uk/News/Media-office/Press-releases/2013/WTP051537.htm
<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Key indicators of progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discoveries</td>
<td>1. significant advances in the generation of new knowledge</td>
</tr>
<tr>
<td></td>
<td>2. contribute to discoveries with tangible impacts on health</td>
</tr>
<tr>
<td>Applications</td>
<td>3. contribute to the development of enabling technologies, products and devices</td>
</tr>
<tr>
<td></td>
<td>4. uptake of research into policy and practice</td>
</tr>
<tr>
<td>Engagement</td>
<td>5. enhanced level of informed debate in biomedicine</td>
</tr>
<tr>
<td></td>
<td>6. significant engagement of key audiences &amp; increased reach</td>
</tr>
<tr>
<td>Research leaders</td>
<td>7. develop a cadre of research leaders</td>
</tr>
<tr>
<td></td>
<td>8. evidence of significant career progression among those we support</td>
</tr>
<tr>
<td>Research environment</td>
<td>9. key contributions to the creation, development and maintenance of major research resources</td>
</tr>
<tr>
<td></td>
<td>10. contributions to the growth of centres of excellence</td>
</tr>
<tr>
<td>Influence</td>
<td>11. significant impact on science funding &amp; policy developments</td>
</tr>
<tr>
<td></td>
<td>12. significant impact on global research priorities and processes</td>
</tr>
</tbody>
</table>
How do we assess our impact

• we want to build the most picture we can of our outputs & impact
• we use a broad range of approaches to assess our progress:
  – capturing and analysing research outputs (publications, citations, patents, etc)
  – developing research profiles & histories
  – tracking researcher careers
• the open access movement has helped to enable the availability of new & alternative metrics
• Value is variable, and we can’t yet capture all we need… but a rapidly evolving field
A wider range of metrics...

The Effectiveness of Mobile-Health Technology-Based Health Behaviour Change or Disease Management Interventions for Health Care Consumers: A Systematic Review

Caroline Free, Gemma Phillips, Leandro Galli, Louise Watson, Lambert Feilix, Phil Edwards, Vikram Patel, Andy Haines

Published: January 15, 2013 • DOI: 10.1371/journal.pmed.1001362

Total Article Views

58,747
Jan 15, 2013 (publication date) through Dec 1, 2014

HTML Page Views | PDF Downloads | XML Downloads | Totals
---|---|---|---
PLOS | 46,380 | 5,477 | 218 | 52,075
PMC | 4,681 | 1,991 | n.a. | 6,672
Totals | 51,061 | 7,468 | 218 | 58,747

14.63% of article views led to PDF downloads
Valuing a broad range of outputs

- Research culture and environment not perceived to provide sufficient support or rewards for data sharing
- High quality datasets which are reused need to be recognised and valued as research outputs
- The wider use of data citation practices could play a vital role
- …but wider take up depends upon these being given greater value in key assessment processes.

http://www.wellcome.ac.uk/About-us/Policy/Spotlight-issues/Data-sharing/EAGDA/WTP056496.htm
Closing thoughts...

- funders committed to maximising the availability and use of research outputs in order to maximise benefit
- we are working in partnership with each other and the wider research community to overcome barriers
- as a funder, assessing the impact of our activities is a considerable challenge, measuring the effect of open access on this is harder still
- but open access in itself is helping to enable us to measure impact in new ways…
Any Questions?

d.carr@wellcome.ac.uk
http://www.wellcome.ac.uk/About-us/Policy/Spotlight-issues/Data-sharing/index.htm