Scholarly Impact

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What is Scholarly Work?
Your “Outputs”, What You Do/Create

• Add to knowledge base
• Educate others
• Research, educational, and commercial resource development
• Help community (local, national, global)
• Disseminate information
• Facilitate implementation
What is Scholarly Impact?
Impact is How Your Outputs Influence Outcomes

• Outcomes
  • Support ASU Charter (education, community, research)
  • Contribute to policy change
  • Advance research field
  • Improve public health
  • Educate community

• Metrics are indicators of impact

• Tell a story about your impact using metrics
  • Personal statement, resume description of projects, job application “research statement”, professional website/blog

• Story depends on audience
  • What is important to them
  • What outputs do they value?
It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness...
Initial Considerations Before/During Data Gathering

• What is your goal
• Who is your audience?
• Which impacts are important?
• Which outputs support your case?

• Gather Data
• Select Visualization – may vary for different output our outcome types
• Streamline process for regular curation (annual, etc.)
Bibliometrics

• **Google Scholar**
  - Free, public, easy to track, reference alerts, eases name ambiguity
  - Times cited, i-10, H-index (cannot compare across disciplines or career stage)

• **Web of Science**
  - Institutional license, free researcherid.com (new to me...)
  - Hot Paper (top 0.1%), Highly Cited Paper (top 1%)
  - Tree maps of publications and citations (scientific fields, institutions, countries, etc.)

• **Others**: Publon, etc.

• **Limitations**
  - Delay in citation accumulation
  - Citation bias (reviews, highly cited self-perpetuates, data sources, errors, relies mostly on journals & books)
  - Cited but not *used* (i.e., maybe not read, taught, talked about)
  - Gaming (over-cite journal you submit to, over-citing your/your buddy’s papers)

• **Example(s)**
Bibliometric Tips

• Both can show trajectories of citations
  • Why?
• Always use a middle initial for your name
  • Why?
  • Make one up if you don’t have one
• Be strategic in selection of keywords
  • Why?
Altmetrics

- Online tools and engagement
- Non-traditional sources where output is getting attention
- Broader scope
- ASU cares about more than your academic citations...what?
- Examples:
  - Policy documents, news stories, blogs, lay press, social media, videos, code, software, reports, data sets
- How and where your output is being consumed and impacting the community/world!
Altmetrics

• Advantages:
  • Not just social media (more on next slides)
  • FAST to showcase influence of output
  • Find potential collaborators and community partners
  • Identify communication channels
  • Identify loopholes in your communication efficiency/story-telling

• Limitations:
  • Attention can be positive OR negative
  • Gaming
  • Disciplinary differences – can’t compare across disciplines
  • Online attention is required
  • Older papers won’t have much of these metrics

• Examples
Resources and Metrics

- Altmetric.com
  - Tools, including bookmarklet to add to your internet bookmark bar
  - Click bookmarklet when on webpage of paper you want Altmetric data for
  - http://www.metrics-toolkit.org/choose-metrics [NEW]
    - Lots of metrics resources here

- Some journals have their own metrics on-site
  - E.g., PLoS ONE

- Metrics you can collect and collected by altmetric systems (much more on next slide)
  - Amazon sales
  - Research Gate reads, requests
  - Worldcat – libraries that own your book
  - SlideShare & FigShare downloads, views, likes, clipped slides
SOCIAL MEDIA
- Twitter
- Facebook
- Google+
- Reddit
- LinkedIn (historical)

Public policy documents
Mainstream media (2,000+)
Online reference managers
Post-publication peer-review platforms
Open Syllabus Project
Wikipedia pages/citations on
Blogs
YouTube
Stack Overflow
Patents

Not all sources/mentions are weighted the same!
More on Writing Your Story
- Use **percentiles** to provide context for any metrics you include (e.g. “My research is in the 95th percentile of all research published in *PLOS Genetics* in 2015.”)
- Use only those **metrics and data that directly support your claims** of impact
- Use **compelling full-text evidence** that makes it clear who’s discussing your research, how they are using it, and why it is influential

### Personal Statement (aka the Tenure Narrative)
The Personal Statement provides an opportunity to dig down into full-text mentions of your work from around the Internet. Refer to the Altmetric details pages for your publications to find engagement that helps build a picture of your professional profile. This could be the abstract page on the publisher site, or your institutional repository, for example.

“To date, my research has had considerable influence on maternal health outcomes in the developing world, as shown by its recommendation in a recent World Health Organization brief for Lilliputian doctors.”

### Scholarship Evaluation
Draw attention to the most compelling altmetrics data for your work—specifically, the attention data that you believe characterises you as a leader in your field. This is also another good place to include qualitative evidence, rather than metrics.

“My research has been consistently cited in mainstream media with broad international readership, such as the BBC, and has had positive Publons reviews.”

### Grants
Use altmetrics to show the attention associated with materials that were published following the grant, especially non-traditional outputs like datasets and software.

“The software package I created thanks to this NSF grant is now used by over 150 labs worldwide in their own analyses.”

### Outreach and Engagement
Use altmetrics to find and highlight the reach and visibility of your work — including any useful interactions that members of the public or key influencers have had with the research.

“Through participation in social media events like Twitter’s #AskADRSunday, I’ve connected with over 15,000 members of the general public in Toronto and used that platform to raise awareness of my research amongst local community members.”

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Note about Team Science...

What is/was your role in the team?
What did you produce/contribute?
Actively Promote Your Work to Expand Your Impact

- **Write a lay summary of your research** and introduce it via relevant discussion lists and online forums.
- **Reach out to key bloggers** to make them aware of your work - look at the Altmetric details pages for other articles in your discipline to see who might be interested.
- **Upload and make available data, images, posters and other files** via a platform such as figshare.
- **Share links to your work** via twitter and other social media after presenting at conferences.
- **Register for an ORCID ID** and populate your profile so that others can easily discover your work.
- **Start your own blog (or contribute to an existing one)** - it’s a great way to build your online profile and position your research.
- **Include a link to your work** in your email signature, online profiles or CV.
- **Work with the press office** at your publisher or institution to announce the publication of your research.
- **Make your work available via Open Access** wherever possible, and share links to your full text outputs on social media.

Every next level of your life will demand a different you.
Addition Resources

• Documenting Social Media Engagement as Scholarship: A New Model for Assessing Academic Accomplishment for the Health Professions
  • J Med Internet Res 2020;22(12):e25070