



Building a Scholarly Universe

Mike Taylor

Research Specialist

Elsevier Labs

mi.taylor@elsevier.com

Orcid

- Open Researcher and Contributor ID
- ID for for researchers and contributors
- Academic institutions, professional bodies, publishers
- Live next year
- Website: www.orcid.org

Evolution or revolution?





What didn't happen?

- Publishing survived the dotcom era
- Publishing survived the web2.0 era
- The “facebook”, the “itunes”, the “napster”, the “google”
- Well, *kinda*

What did happen?

- Open Access
- PDFs
- Webpages
- Search engines for the above
- DOIs, Crossref



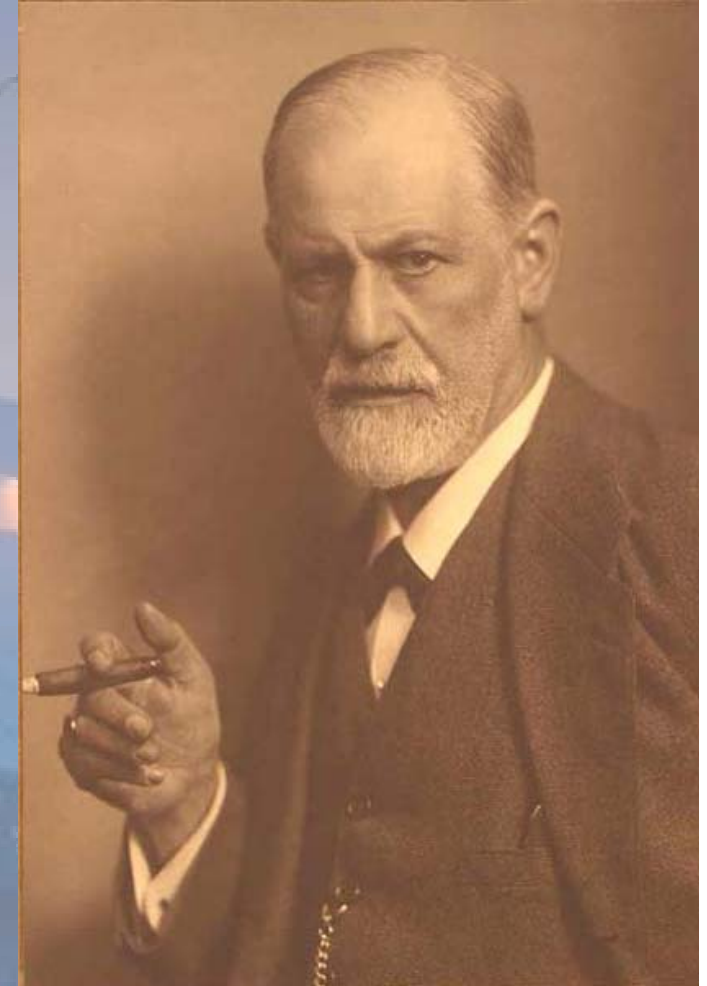


Threats

- Huge growth in publishing
- Multiple languages
- Too hard to find anything
- Petabytes of data
- Weaknesses being understood

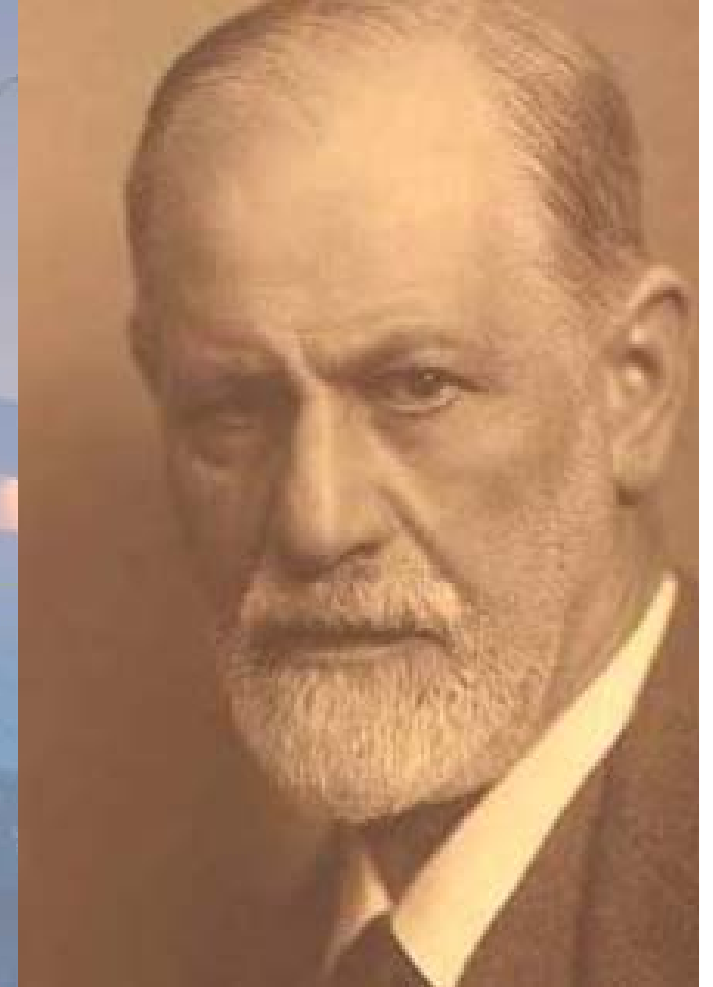
What about the good stuff?

- Papers get distributed
- Authorship is proven
- Claims are tested (*ish*)
- Focus is maintained



What makes it tick?

- Productivity count
- Quality judgements (*ish*)
- Reward system
- \$\$\$\$\$\$\$\$



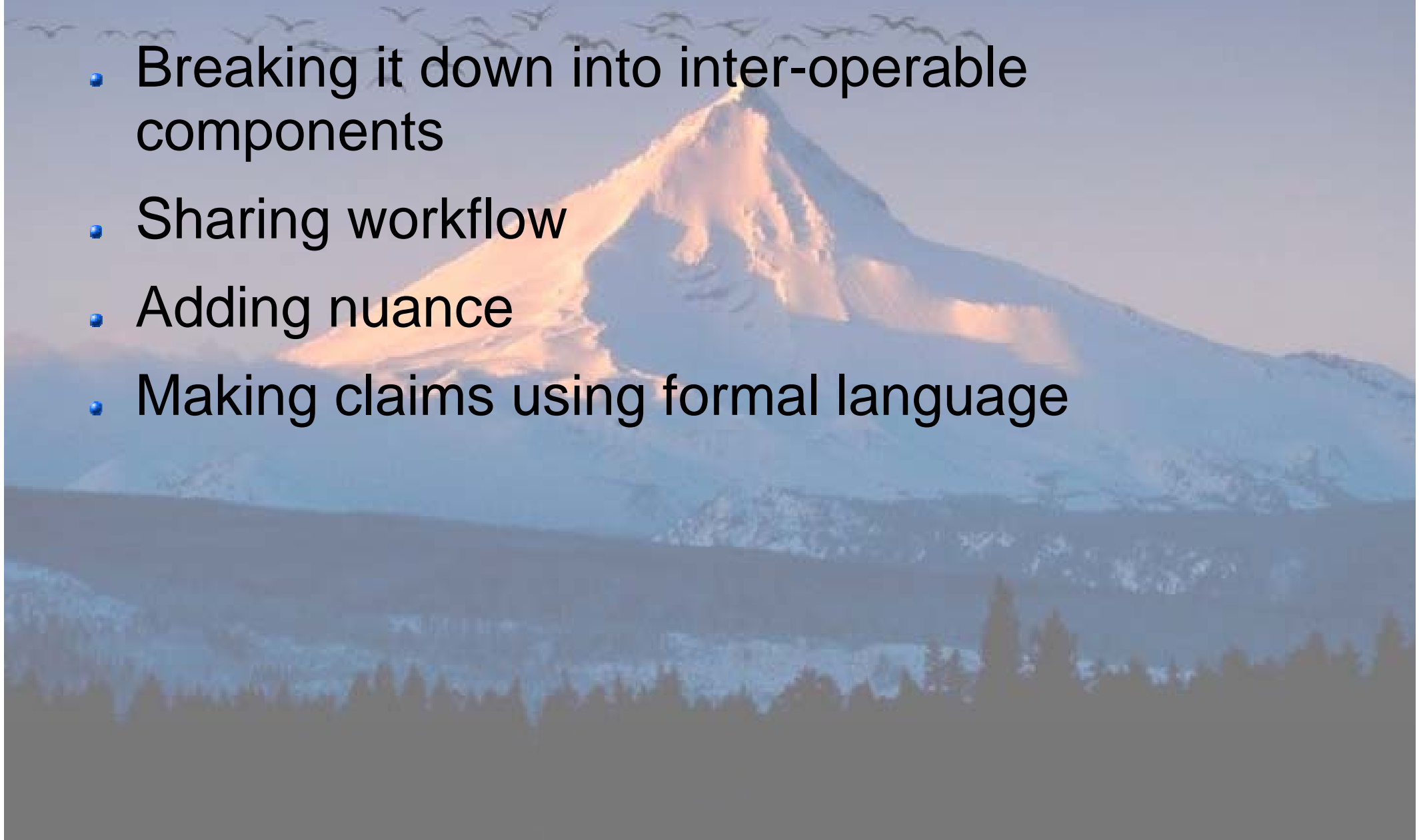
Is this good enough?

- Can it survive the data growth?
- The geographic and linguistic changes?
- Is more evolution sufficient?
- What about the future that is only starting to emerge?
- Or is the end nigh?



What can be done to the article?

- Breaking it down into inter-operable components
- Sharing workflow
- Adding nuance
- Making claims using formal language

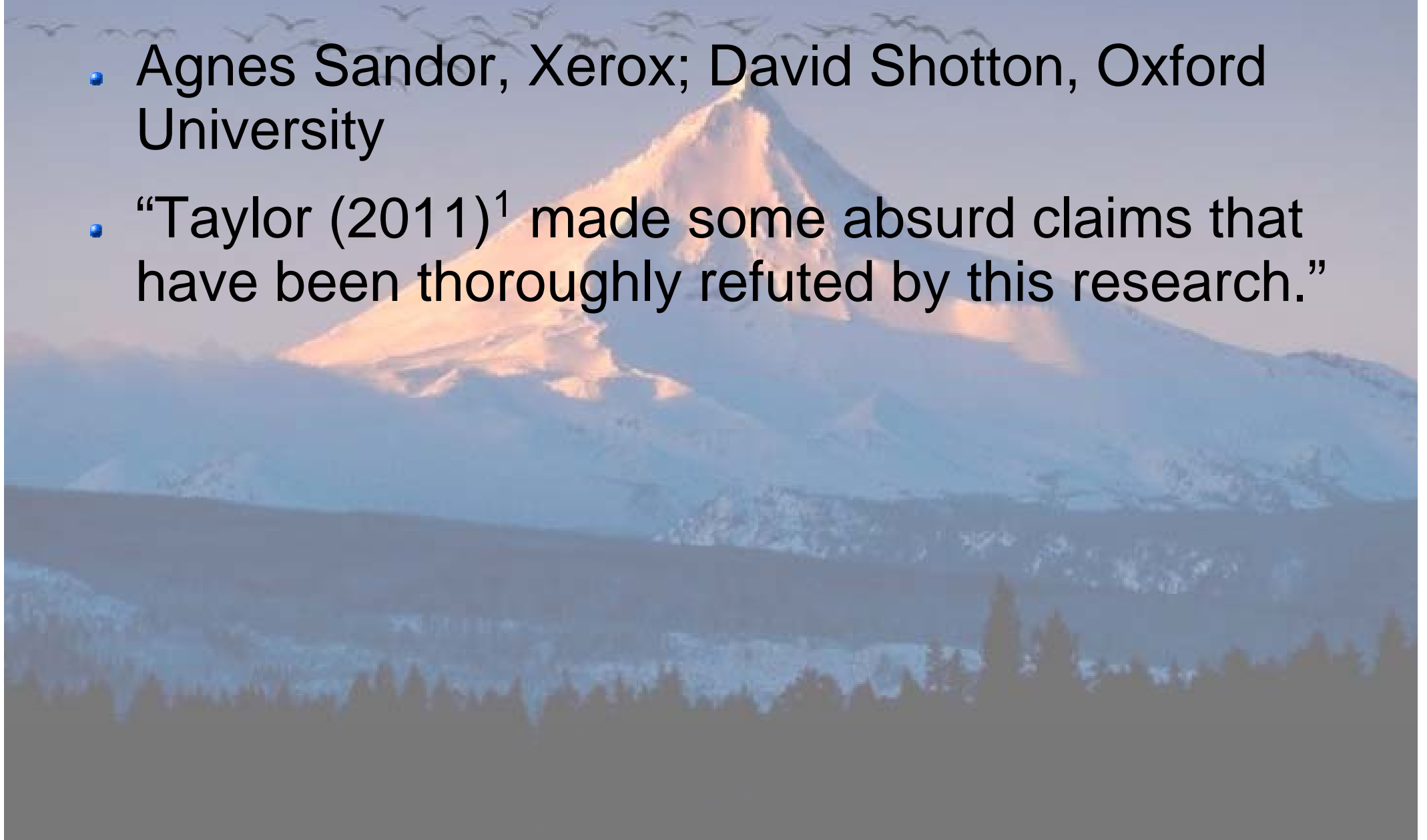


Workflow tools

- Taverna – life science
- Kepler – engineering
- Chemistry Plan
- Triana – multiple disciplines
- Sharing: www.myexperiment.org

Adding nuance with citation analysis

- Agnes Sandor, Xerox; David Shotton, Oxford University
- “Taylor (2011)¹ made some absurd claims that have been thoroughly refuted by this research.”



Are these of equal standing?

- “Taylor (2011)¹ made some absurd claims that have been thoroughly refuted by this research.”
- “Taylor's 2011¹ findings have been confirmed in this study”
- “Taylor's 2011¹ dataset was used as a starting point...”

The ignorance of search engines

- The definition of **paracetamol**:
“Paracetamol (INN) or acetaminophen (USAN) is a widely used over-the-counter analgesic (pain reliever) and antipyretic (fever reducer).”
- The definition of **acetaminophen**:
“An analgesic drug, $C_8H_9NO_2$, used to treat headaches, arthritis, etc., and also to reduce fever, often as an alternative to aspirin.”

Formalized statements

- Presence of **EGR1 gene increases morbidity** when **atenolol** is used to treat **hypertension** in **elderly patients**
- ...becomes...
- **Gene A** has **Effect X** on **Drug C** when **Person type Y** has **Condition B**
- Where Gene A (EGR1), Effect X (increases morbidity), Drug C (atenolol), Type Y (elderly patients), Condition B (hypertension) are defined entities that exist on the web and are accepted as being the canonical definition of a particular phenomenon.

Claims repository

- The claim
“**Gene A** has **Effect X** on **Drug C** when **Person type Y** has **Condition B**”
- Is located at DOI 12345/6
- And was made by Mike Taylor

Facebook for scientists? Facebook for science?

- Citeulike
- Mendelay
- Zotero
- 2Collab
- But also... Facebook, Linkedin, Twitter...

Claims repository with Orcid

- The claim
“**Gene A** has **Effect X** on **Drug C** when **Person type Y** has **Condition B**”
- Is located at DOI 12345/6
- And was made by Mike Taylor... but how is Mike Taylor? There are thousands of them! Several in publishing! Three in Elsevier!
- Sigh of relief: Orcid

Altmetrics – your value is more than a number

- Web: altmetrics.org
- From the website:
- “Altmetrics expand our view of what impact looks like, but also of what’s making the impact. This matters because expressions of scholarship are becoming more diverse. Articles are increasingly joined by:
- “The sharing of “raw science” like datasets, code, and experimental designs
- “Semantic publishing or “nanopublication,” where the citeable unit is an argument or passage rather than entire article.
- “Widespread self-publishing via blogging, microblogging, and comments or annotations on existing work.”

The new scholarly universe?

- Spreading the word?
- Registering findings?
- Intelligent? Knowledgeable?
- Nuanced?
- Formalized?
- Personalized?
- Collaborative?
- And is it measurable...?

To find out more...

- Web www.force11.org
- “Force11 is a virtual community working to transform scholarly communications through advanced use of computers and the Web.
- “We invite you to join us.”

