Your Institutional Research Enterprise: Tools for Illuminating and Communicating Its Impact and Influences, and Strategizing for Future Development

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Panel Discussion

Presented by

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The Research Information Management (RIM) System – for a university, provides the capability to measure, better understand, and evaluate the strength of one’s research enterprise.

The necessary, foundational strength of a RIM system is its role as an authoritative institutional data source, dedicated to supporting the capture, linking and dissemination of information associated with the research lifecycle.

The RIM system classic data model includes:

- Person data (incl. positions, skills, cv)
- Research Outputs (e.g. publications) and Datasets
- Patents
- Grants and projects
- Professional & teaching activities
- Org Units (e.g. research groups)
- Equipment and facilities
The Research Information Management (RIM) System – as an authoritative institutional data source, should facilitate capture of critical information in a manner that reduces the burden on faculty.

Auto Harvesting and Disambiguation of Research Output Data

Integration of internal data from institutional resources may occur as well, typically from HR systems, Grant Management systems, etc.

* with license
The RIM System: Essential Support for the Research Enterprise

The Research Information Management (RIM) System – diverse authoritative data, made available for re-use.
RIMs themselves should help to establish relationships between people, publications, grants, etc. …
The Research Information Management (RIM) System – diverse authoritative data, made available for re-use.

Reporting and CV generation...
RIMs help institutions visualize individual and institutional research networks in public facing profiles.

VIVO: Co-author Network

Profiles RNS: Author
Concepts Timeline
The RIM System: Essential Support for the Research Enterprise

Support of Open Access Policy, Institutional and Funder
RIMs, as an authoritative institutional data source, should support the population of institutional digital repositories with captured publications metadata. The automatic detection of files elsewhere on the web helps reduce the burden placed on academics.
The RIM System: Essential Support for the Research Enterprise

Analytics -- Key to Illuminating and Communicating Its Impact and Influences, and Strategizing for Future Development
The RIM System: Essential Support for the Research Enterprise

Publications, Grants, etc. – Data Automatically Harvested from External Sources, and integrated from Internal Sources.

Capture of data within Elements provides for a range of reuse options for universities, streamlining processes and reducing the burden on staff – and faculty.

Profile and CV generation

Elements aggregates, organizes, de-duplicates data from multiple sources, preparing it for re-use.

VIVO (or Profiles RNS)

Institutional OA Repositories

Reporting and Analyses
Thank You!
USDA – Research

Melanie Gardner
Acting Associate Director, Information Products Division
USDA, ARS, National Agricultural Library
April 30, 2015
USDA Research ...

- Stove-piped by Agency
- Created USDA VIVO – research networking system
- Sources of data ...
  - Multiple systems
  - Dirty data
  - Incomplete data
  - Need for editing profiles and approving them before pushing to public web
- Now, public access is mandate – “PubAg”
Welcome to VIVO

The U.S. Department of Agriculture (USDA) provides leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on sound public policy, the best available science. USDA employs over 5,000 researchers to advance that science, and provides grants to many times that number of researchers outside the Department.

As research becomes more interdisciplinary, it can be hard to find collaborators outside your own area. USDA VIVO provides a powerful Web search tool for connecting researchers, research projects and outcomes, and others with relationships to the research. The idea is to link researchers with peers and potential collaborators. VIVO makes it possible to quickly identify scientific expertise to address a variety of food- and agriculture-related issues or to rapidly mobilize a response on a scientific issue.

USDA's Agricultural Research Service (ARS), Economic Research Service (ERS), National Institute of Food and Agriculture (NIFA), National Agricultural Statistics Service (NASS), and U.S. Forest Service (USFS) are the first five USDA agencies to participate in VIVO. The National Agricultural Library (NAL), part of ARS, hosts the USDA VIVO. All information contained in USDA's VIVO is public information.
Zimmerman, Lewis  

**Biological Scientist**

**Positions**

- BIOCL SCNTST, [Forest Inventory and Analysis](#)
PubAg is a portal to USDA-authored and other highly relevant agricultural research. At launch, it delivers over 40,000 full-text journal articles by USDA staff and includes nearly 450,000 citations. The Library will add about 20,000 citations each month. The initial release also previews its directions for intended functionality and will serve as the foundation for further enhancements.
Symplectic Elements ...

- Assist with automatic and “clean” data pull of citations
- Allows Agency editor to review and approve profile information
- Assists with deposit of research outcomes – publications and data
- Allows connections with research projects
- Enables program managers to monitor research outputs of individuals and units
Contact – Melanie Gardner, melanie.gardner@ars.usda.gov
Intro to altmetrics and Altmetric.com

Sara Rouhi
Product Sales Manager
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Democratization of information: Everyone, not just researchers, can read research...and talk about it

- 44K online mentions of scholarly articles every day.
- 1 mention every 2 seconds!
- 50K unique articles are shared each week.
- >3.5M articles with tracked attention data.

Source: Altmetric internal data, March 2015
Print based paradigm in a digital age:

Lagging indicators
Funding pools drying up: *Show me the (broader) impact!*

Grant funders looking for proof of “broader impacts” often defined as “an effect, change, or benefit to the economy, society, culture, public policies, health, the environment, etc.”

*Research Excellence Framework,*
http://www.ref.ac.uk/panels/assessmentcriteriaandleveldefinitions/

Broaden dissemination to enhance scientific and technological understanding, for example, by presenting results of research and education projects in formats useful to students, scientists and engineers, members of Congress, teachers, and the general public.

An alternative, more immediate measure of attention from non-traditional sources to provide a larger context. Not a replacement but a complement.

Note: *Altmetric.com and altmetrics are not the same thing!*

Altmetric.com is one of several altmetrics providers.
Who are we?

Altmetric is a data science company that tracks attention to research outputs, delivering output level metrics via visually engaging, intuitive interfaces.

In other words, we help give credit where credit is due.
Why would my institution use altmetrics?

They answer *key administrator needs* and questions!
Why? **Administrators**

- Are we in compliance with grant/govt mandates?
- Do our research outputs work toward our group/dept/instit. mission?
- Does our campus have global reach?
- Does our research influence policy, legislation, best practices?
Why? Libraries

- Do our collections reflect where our research gets the most attention (i.e. are we missing anything? Are we purchasing the wrong things?)
- Does our OA policy bring more attention to our work?
- How does our institutional repository bring attention to campus research?
Why? *Marketing/PR/Communications*

- Is anyone out there getting it wrong?
- Have we missed opportunities to get in front of a PR/communications storm?
- Can we benchmark our outreach efforts?
- Are we reaching the target markets we want?
- Are we using the right media?
Why? *Research Groups*

- Are we reaching the audiences we want to see our work?
- Is anyone misrepresenting/confused by our work?
- How do we demonstrate “broader impact” to grant funders?
- How can we reach more people with our research?
- Are we engaging unexpected communities?
Multifaceted picture of engagement: **Audiences**

- Practitioners
- General Public
- Scholars
- Professional Communicators
- Interested Parties
Multi-faceted picture of engagement: 

*Interaction*

- Scholars
  - Downloads
  - Citations
  - Bookmarks/saves

- Early career
  - Social media, blogs

- General public
  - News, blogs, social media

- Practitioners
  - Policy documents
  - Field-specific blogs/Social Media

- Research communicators
  - News, blogs, social media

- Interested parties
  - Policy docs, blogs
How do we collect this data?
We need three things to track an output:

- An **output** (journal article, dataset, etc)
- An **identifier** attached to the output (DOI, RePEc, etc)
- Mentions in a **source** we track
Our terminology

**Research Outputs**
Items for which we track ‘Mentions’.
- e.g. Data set, journal article, etc.

**Attention Sources**
Places where we look for ‘mentions’ to Research Outputs
- e.g. News, blogs, social media, etc.

**Mentions**
References or links to a Research Output across our Attention Sources.
- e.g. Link to a paper in a policy document
## Unique IDs we track…

<table>
<thead>
<tr>
<th>ID Type</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOIs</td>
<td>General</td>
</tr>
<tr>
<td>PubMed ID</td>
<td>Health Sciences</td>
</tr>
<tr>
<td>arXiv ID</td>
<td>Physics, Mathematics &amp; Computer Sciences</td>
</tr>
<tr>
<td>ADS ID</td>
<td>Astrophysics data system</td>
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<tr>
<td>SSRN ID</td>
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<td>Economics</td>
</tr>
<tr>
<td>Handles</td>
<td>General</td>
</tr>
</tbody>
</table>
Sources we follow...

News outlets
- Over 1,300 sites
- Manually curated list
- Text mining
- Global coverage

Post-publication peer review
- Publons
- Pubpeer

Reference managers
- Mendeley etc
- Demographics

Social media and blogs
- Twitter, Facebook, Google+, Sina Weibo
- Public posts only 8,000+ Blogs

Other sources
- Youtube
- Reddit
- F1000
- Q&A
- Wikipedia
- Policy Docs

Altmetric
So where will you find altmetrics?
Where will you see our data? Publisher platforms

ELSEVIER

WILEY

ROYAL SOCIETY OF CHEMISTRY

nature publishing group (npg)

THE COCHRANE COLLABORATION

® Wolters Kluwer Health

Springer

Altmetric
Where will you see our data? Books

The Growth of INCARCERATION in the United States

Explores Causes and Consequences

Status: Final Book
Downloads: 10,785

Total PDF Downloads: 10,785

PDF Downloads Over Time

What is an Altmetric score?

Altmetric calculates a score based on the online attention a publication receives. Each colored thread in the circle represents a different type of online attention and the number in the center is the Altmetric score. The score is calculated based on two main sources of online attention: social media and mainstream news media. Older publications will typically score higher because they have had more time to get noticed.

For a more detailed description of Altmetric, the Altmetric score, and sources used, please see Altmetric's information page.
Where will you see our data? Other metrics providers
“A CV that documents alternative metrics [...] offers a much more compelling argument to a tenure committee of their research impact than a traditional publication list.”

- Donald Samulack, Editage
Where will you see our data? **Platforms**

- **QxMD**
  Recommendation Engine Integration for Medical research Apps

- **HighWire**
  Integrating Altmetric service into publishing platform

- **Silverchair Information/Systems**
  Altmetric Integration for JAMA and others to monitor research impact

- **scienceOPEN.com**
  Integrates Altmetric data for over 1 million articles
Where will you see our data? Institutional repositories/discovery systems

- Institutional repository badge embeds
- Badge integration with discovery systems
Unprecedented recent summer warmth in Arctic Canada

Summary

LU users (3)  History (1)  Data sources (3)  Full text  Links (3)

Miller GH, Lehman SJ, Refsnider KA, Southon JR, Zhong Y
GEOPHYSICAL RESEARCH LETTERS 40(21):5745-5751 16 Nov 2013

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Thanks!

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@RouhiRoo
Impact Services

- Impact Libguides
  - Curated searches in Scopus, Web of Science and LexisNexis, integrated NAXchange and Altmetric data

- Impact Summaries
  - Compiled data to be used for marketing and potential funding opportunities

- Motivational Metrics: Using Data to Communicate Impact Workshop
  - Designed to train staff on how to use institutional metric tools
New Directions in Child Abuse and Neglect Research (2013)

Cited in Scopus

See below for a sampling of articles that have cited this report. Check the References section of the article to see how the report is cited.

Click here to see a complete list of peer reviewed articles that cite the report in Scopus. Tip: Sort by Cited by - to see which of these articles have had the most impact.

Search strategy: REF("New Directions in Child Abuse and Neglect Research")

- Interagency collaboration and identifying mental health needs in child welfare. Findings from Los Angeles County
- Culture and context in understanding child maltreatment. Contributions of intersectionality and neighborhood-based research
- Child Maltreatment and Children's Developmental Trajectories in Early to Middle Childhood
- Interpersonal difficulties mediate the relationship between child sexual abuse and depression symptoms
- Pilot study of a program delivered within the regular service system in Germany. Effect of a short-term attachment-based intervention on maternal sensitivity in mothers at risk for child abuse and neglect

Website | Feed

Cited in Web of Science

See below for a sampling of articles that have cited this report. Check the Cited References section of the article to see how the report is cited.

Click here to run a Cited Reference Search to see a complete list of peer reviewed articles that cite the report in Web of Science.

Follow the instructions below.

1. From the main Search page, select the blue drop down arrow and click on "Cited Reference Search" to begin.
2. In the Cited Work field, copy & paste the following search strategy:
   (NEW DIR CHILD AB NEG OR NEW DIRECTION IN CHILD ABUSE "AND" NEGLECT RESEARCH)
   and then in the Cited Year field, copy and paste the following years:
   (2013-2014)
3. Click Search

Cited in the Press

Select the LexisNexis link below to view news articles that cite this report. Includes all news, all languages, and all dates.

Tip: Sign into LexisNexis with your nasa.edu email first if the link below does not work.

- New Directions in Child Abuse and Neglect Research

Tracking Impact

The information we collect about a report, workshop summary, dissemination article or other NAP related product helps us understand its national or global influence. We can package that information for our Executives, RSOs, sponsors, and the consumer to demonstrate the value in the products we deliver. Ideally it will help Academy decision makers and national leaders understand that what we do has tangible value.

Visit the Motivational Metrics LibGuide to learn more.

- Request Impact Summary
- Report an Impact
Next Steps

- More staff training
  - Connect the dots for staff
- Embed the library in the communications planning for projects
  - Library can assist in identifying how and where metrics can be collected
- Improve analysis techniques of usage/peer review metrics and altmetrics.
  - Package for staff to be used for marketing and business development.
Contact Information

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