2014

I Hear the Train A Comin': Of Ecosystems and Stakeholders

Greg Tananbaum

ScolarNext Consulting, greg@scholarnext.com

Follow this and additional works at: <https://docs.lib.purdue.edu/atg>

Part of the [Library and Information Science Commons](#)

Recommended Citation

Tananbaum, Greg (2014) "I Hear the Train A Comin': Of Ecosystems and Stakeholders," *Against the Grain*: Vol. 26: Iss. 5, Article 56.
DOI: <https://doi.org/10.7771/2380-176X.6890>

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries. Please contact epubs@purdue.edu for additional information.

I Hear the Train A Comin' — Of Ecosystems and Stakeholders

Column Editor: **Greg Tananbaum** (ScholarNext Consulting) <greg@scholarnext.com> www.scholarnext.com

I have a confession to make. Since the last **Charleston Conference**, I have used the word “ecosystem” in 252 separate email threads. And counting. By the time you read this, it may well be over 300. For better or worse, though, “ecosystem” is the **Garfunkel** to the **Simon** that is “stakeholders.” 502 distinct email threads for the latter term since the last time I stepped through the doors of the Francis Marion Hotel. Why has my past year focused so intensely on these two words? On a micro level, it has largely to do with my involvement in SHARE (I am the product lead for the project). On a macro level, SHARE is part of a larger series of developments that, taken collectively, are pushing us toward a greater understanding of what it means to be a stakeholder in the scholarly communication ecosystem.

By way of background, SHARE (the SHared Access Research Ecosystem) is a higher education and research community initiative to ensure the preservation of, access to, and reuse of research outputs. SHARE is developing solutions that capitalize on the compelling interest shared by researchers, libraries, universities, funding agencies, and other key stakeholders to maximize research impact, today and in the future. SHARE aims to make the inventory of research assets more discoverable and more accessible, and to enable the research community to build upon these assets in creative and productive ways. **The Association of Research Libraries (ARL)**, the **Association of American Universities (AAU)**, and the **Association of Public and Land-grant Universities (APLU)** have partnered to develop SHARE with significant input from the three associations’ member institutions, along with generous financial support from the **Alfred P. Sloan Foundation** and the **Institute of Museum and Library Services (IMLS)**.

SHARE’s first project is the SHARE Notification Service. It aims to notify interested stakeholders when “research release events” occur, including the publication of articles and the posting of datasets. The SHARE Notification Service will distribute these notifications, in the form of a concise set of metadata (fields might include ORCID, grant number, DOI(s), and agency IDs) to stakeholders such as funding agencies, sponsored research offices, institutional repositories, and disciplinary repositories. In short, the SHARE Notification Service

will let interested parties know when research release events occur in a timely, structured, and comprehensive manner.

From the SHARE perspective, there are any number of stakeholders who, collectively, populate the “ecosystem” that I have mentioned in 502 emails since last **Charleston Conference**. This roster includes individual researchers, sponsored research offices, repository managers, scholarly communication librarians, government agencies, research funders, publishers, standards organizations, advocacy groups, the international community, and even the general public. Each has an *interest* in knowing who generated what research when, and where to find it. Each also has *responsibility* in ensuring the conveyance of this information in an efficient manner. I’ll return to this notion of interests and responsibilities shortly.

SHARE is but one of the burgeoning community initiatives aiming to improve the flow of information within the scholarly communication ecosystem. As a representative but by no means comprehensive list, witness the following developments:

- Identifier registries (DOI, ORCID, CrossRef, FundRef, DataCite, ISNI)
- Data-centric coalitions (Research Data Alliance, NDS)
- Publisher-driven projects (CHORUS, FundRef, CrossRef’s Text and Data Mining service)
- International efforts (COAR, OpenAIRE, CASRAI)

While this is quite a diverse array of undertakings, there are four common strands that connect them — three interests and one responsibility. First interest — *As a community, we are interested in sharing information, as both producers and consumers of scholarly content*. This interest has led us toward technical developments that make it easier than ever to share information. Back offices systems for publishers, repositories, and other scholarly communication outputs have increasingly sophisticated mechanisms for tracking and disseminating metadata and scholarly objects. Text files and Excel spreadsheets have long given way to OAI and APIs. This means that information can be shared in increasingly sophisticated ways, on a one-off basis and at scale, with ever-falling financial and technical access barriers.

This ability to share information has led to the second interest — *We are interested in reducing Towers of Babel*. The rapid proliferation of technical systems has not been joined by corresponding standards and interfaces. IRs don’t speak to CRIS’s. CRIS’s don’t speak to sponsored research office grant compliance tools. SRO grant compliance tools don’t speak to funding agency grant monitoring systems.

The ability to generate vast and disparate data streams accelerated so quickly that the growth was not systematically managed. In the rush to share information, we did not spend a great deal of time thinking about how others (machines and humans) might best consume that information. We are now developing broad-based coalitions and development projects to address this cacophony.

This leads to the third interest — *Stakeholders are interested in a rational ecosystem*. Mountains of raw information — metadata about datasets, article version history, lists of papers an author has written, and the like — don’t do much good if they can’t be normalized and systematized. Some of the more recent community initiatives attempt to consolidate aspects of other initiatives to extend their utility. So, for example, we see SHARE and CHORUS both seeking to incorporate DOIs, ORCID, and FundRef data into the streams of information they pass between and among systems. There is little need to develop new mechanisms that would largely duplicate these emerging protocols. Further, incorporating them into the SHARE and CHORUS workflows may have an accelerating effect on their adoption by other stakeholders within the ecosystem.

The final strand, as I indicated above, is not an interest but a responsibility. *Stakeholders must work diligently to create this rationality*. No one will do it for them. Take a closer look at the initiatives I laundry-listed above. Virtually all of them bring together a diverse set of players in their attempts to bring order to this chaos. Scholars, librarians, technical experts, the public sector, the private sector, publishers of all stripes, private and governmental funding bodies, campus administration, data scientists, and even the odd consultant (thanks for the invitation) are rolling up their sleeves to come up with systems that improve upon the sharing of information. Each of these stakeholders has a unique perspective on what can be done to make the flow of information more efficient. It is in their collaboration that impactful projects will emerge, and in the careful alignment of these projects that the ecosystem itself will discover rationality.

I will have the pleasure of delving into these interests and responsibilities as part of a **Charleston Conference** session entitled, “Let’s Talk: Bringing Many Threads Together to Weave the Scholarly Information Ecosystem.” Joined by CHORUS Development Director **Howard Ratner** and AAU Executive Vice President **John Vaughn**, among others, I look forward to a frank dialog with stakeholders (last time!) as we work toward an ecosystem (also the last one) that can handle a volcanic flow of disparate information from manifold sources in an efficient and rational manner. 🐘