Advancing Scholarly Communications Innovations among the Campus Community: A Change Model

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The Challenge of Organizational Change

Widespread adoption of open access and open educational resources among the academic community requires significant shifts in the practices of teaching, scholarship and publication. Both university libraries and student governments can be powerful champions and change agents to support new practices that address open access. For instance, the National Association of Graduate-Professional Students (NAGPS) has been a strong proponent of both free, online access to research articles and Open Educational Resources—promoting these issues at the campus, state, and national levels through their more than 90-member graduate student governments.

Yet programs that seek to support transformational change in higher education are often unsuccessful. As Kezar and Eckel (2002)[1] write

"Transformational change is unfamiliar to most higher education institutions; it (a) alters the culture of the institution by changing select underlying assumptions and institutional behaviors, processes, and products; (b) is deep and pervasive, affecting the whole institution; (c) is intentional; and (d) occurs over time."

In a longitudinal study of organizational change at 25 higher educational institutions, Kezar and Eckel (2002) found that

"…five core strategies (were) common across (successful) institutions were identified: senior administrative support; collaborative leadership; systemic, iterative design; professional development; and visible action. Strategies occurred simultaneously or in clusters rather than sequentially, as presented in the higher education change literature.

What made these five strategies so powerful was their ability to help individuals conceptualize a new identity, to feel worthwhile about their efforts, and to be brought along with the institutional agenda—what is labeled sensemaking. Sensemaking is the reciprocal process where people seek information, assign it meaning, and act. It is the collective process of structuring meaningful sense out of uncertain and ambiguous organizational situations. Sensemaking allows people to craft, understand, and accept new conceptualizations of the organization and then to act in ways consistent with those new interpretations and perceptions. Visible action is important because it demonstrates the outcomes of all the hard work, reinforcing the new sense made during the change process. Sensemaking was the underlying characteristic that made these strategies essential."

Designing Library Programs that Support Change

Embracing OA and OER present exciting opportunities that can positively affect individual scholar's careers, the costs of higher education for undergraduates, and institutional scholarly and societal reputation. But achieving these outcomes will likely require intentional action.

Libraries can meet these goals through coordinated and innovative programs that (i) bring about systemic change on campus; (ii) relies on an effective partnership with the campus and libraries

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[1] Kezar, A., and Eckel, P., 2002, Examining the Institutional Transformation Process: The Importance of Sensemaking, Interrelated Strategies, and Balance: Research in Higher Education, 43(3): 295-328.

communities; and (iii) designs and implements the tools, services and policies that make up our program using an iterative design process that draws from the best practices of program design[2], and the organizational change frameworks of Bolman & Deal (2008)[3] and Kezar & Eckel (2002)[4].

In designing and implementing programs that meet the goals listed above, we use a framework that draws from three concepts we believe are required to change campus practices:

1. Change initiatives involving sociotechnical systems requires strategies that account for differences in the individuals being engaged. One important factor to consider is differences in **faculty motivation** because scholarly communication initiatives often focus on changing research and publishing practices. Some faculty will be motivated to adopt open access publishing because they will embrace the ethical imperative of open access ("publicly-funded research should be publicly available). Other faculty might agree with this imperative, but will also evaluate the costs and benefits of change. We want to focus our initial engagement with most faculty on supporting achievable, positive outcomes for near-term issues, where scholarly communication initiatives, such as open access, is the means to an end, to be able to influence both groups.
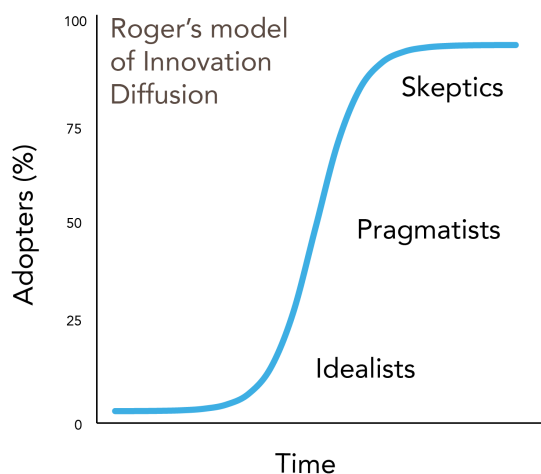
The diffusion of innovations according to Rogers[5]. With successive groups of people adopting an innovation, its adoption will eventually reach the saturation level. In mathematics, the curve is known as the logistic function. The curve is broken into sections of adopters[6].

Initiatives aligned with stakeholder and institutional goals are more likely to have organizational impact. The classic S-shaped curve of the adoption of an innovation was first observed for Indian wheat farmers in the 1960's during the green revolution, when improved varieties of wheat became

[2] Funnell, S. C., and Rogers, P. J., 2011, Purposeful program theory : effective use of theories of change and logic models, San Francisco, CA, Jossey-Bass.

[3] Bolman, L. G., and Deal, T. E., 2008, Reframing organizations: Artistry, choice, and leadership. , San Francisco, CA, Jossey-Bass.

[4] Kezar, A., and Eckel, P., 2002, Examining the Institutional Transformation Process: The Importance of Sensemaking, Interrelated Strategies, and Balance: Research in Higher Education, 43(3): 295-328.

[5] Rogers, E. (1962) Diffusion of innovations. Free Press, London, NY, USA.

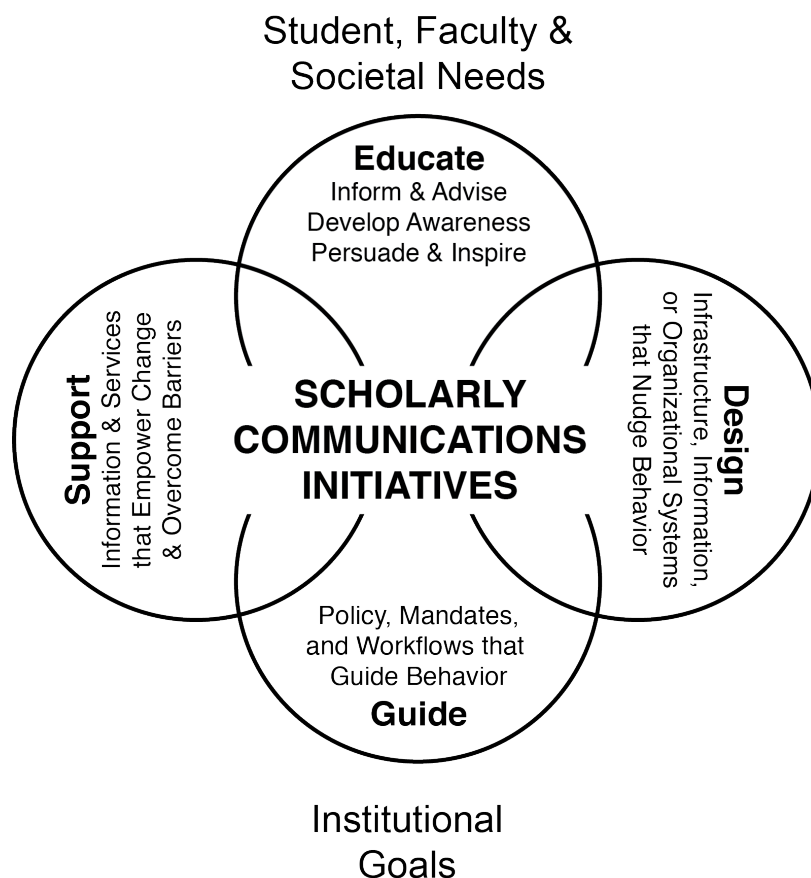[6] https://en.wikipedia.org/wiki/Diffusion_of_innovations

available. We can use that lesson to classify academic communities into three groups: idealists, pragmatists, and skeptics. Specific strategies are required to motivate behavioral changes for each group.

Idealists: motivated by purpose and identity (calls to action). Behavioral changes supported by awareness programs.

Pragmatists: Motivated by costs/benefits analysis. Behavioral change supported by awareness programs that highlight benefits, service programs that address issues (costs), and the design of IT systems that minimize the costs/benefits ratio.

Skeptics: Motivated to maintain the *status quo*. Change supported by mandates and policy.

2. Change usually requires **systemic strategies** that seek to identify **leverage points**[7] where our programs can have a large effect. In order to be systemic, our programs integrate four program elements (i.e. educate, design, guide and support) that can address the range of needs in the stakeholders.   This framework is based, in part, upon the ideas of social marketing[8].


Student, Faculty &
Societal Needs

Educate
Inform & Advise
Develop Awareness
Persuade & Inspire

Support
Information & Services
that Empower Change
& Overcome Barriers

**SCHOLARLY
COMMUNICATIONS
INITIATIVES**

Design
Infrastructure, Information,
or Organizational Systems
that Nudge Behavior

Policy, Mandates,
and Workflows that
Guide Behavior
Guide

Institutional
Goals

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[7] https://www.thesolutionsjournal.com/article/leverage-points-places-to-intervene-in-a-system/
[8] Andreasen, A.R. 1994. J. Public Policy & Marketing. 13(1): 108-114

Change occurs in the **complex organizational contexts** in which real programs are implemented often mean factors and dependencies that affect the effectiveness and impact of any program are never completely known *a priori*, so we have to implement programs **iteratively** and in stages. Most of the time, we will try pilot programs where we can learn about the nuances of the complex contexts in which we work and assess impact, account for unexpected consequences, and iterate our design. This strategy reduces the risk through a "fail often & early" strategy, so the cost of failure is small. Here we draw on a process called lean experimentation[9].

The Lean Experimentation Process
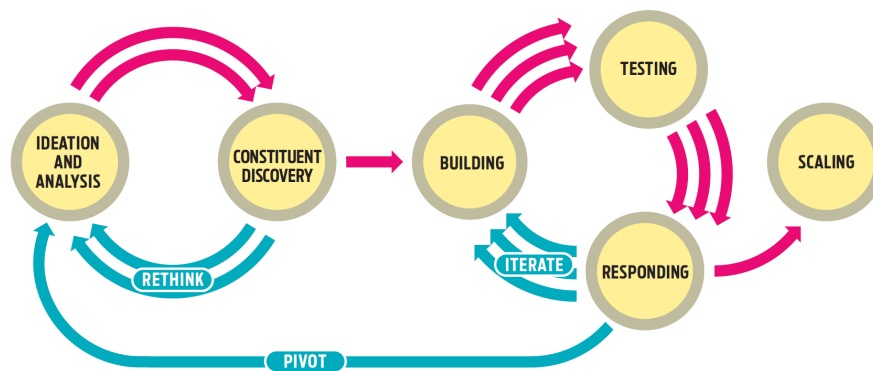
3. Finally, change requires **partnerships** and **community building**, both within and beyond the library. One of the most common contexts that librarians have to accommodate is the differences among different disciplinary communities.   Understanding and adapting programs to these complex contexts is often an important role for subject or liaison librarians. Our programs have focused on building partnerships with subject librarians (and staff/librarians in other units, particularly preservation, metadata, and DI, too – but I am focused on our work with the TAMU community).

Working on scholarly communications projects can be a challenge for subject librarians because OSC project compete with existing tasks and duties for the time and attention of subject librarians and these projects often require new knowledge and skills for subject librarians – especially because so many of the tools and programs being developed by the Office of Scholarly Communications are new[10].   From a broader perspective, the Universities Libraries are working to integrate two distinct organizational models: a subject model (represented by subject liaisons) and a functional model (represented by groups such as the Office of Scholarly Communications and Learning & Outreach)[11].

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[9] Murray and Ma. 2015. Stanford Social Innovation Review. Summer: 34-39

[10] Pinfield, S. 2001. The changing role of subject librarians in academic libraries: J. Librarianship & Info. Sci.: 33(1):32-38.

[11] Hoodless, C., and Pinfield, S. 2016. Subject vs. functional: Should subject librarians be replaced by functional specialists in academic libraries? J. Librarianship & Info. Sci.: DOI: https://doi.org/10.1177/0961000616653647.

OSC has used a specific strategy in partnering with subject librarians on new scholarly communication programs that represent new skills and knowledge areas for the subject librarians. We use a cognitive apprenticeship model to guide our partnership with subject librarians, where we engage in mentoring, coaching, scaffolding, articulation, reflection and exploration activities.[12] Our goal is to support the development of the knowledge and skills so that a subject librarian can lead on a specific OSC initiative. Under this model, subject librarians have a T-shaped role in the library, one where they engage in all of the traditional roles of a subject librarian while developing deep expertise and impact in specific initiatives.

This model would support both scholarly communications and learning and outreach initiatives. I believe it would be worth considering organizing subject librarians in small groups focused on specific colleges instead of departments, as most major initiatives are organized at the college-level.

OSC seeks to partner with subject librarians to serve their academic communities in ways where the subject librarian has a choice of three, possible roles:

Subject librarian leads. In this case, the subject librarian schedules and manages all projects, communications, consultations, workshops, or presentations. OSC supports the projects, usually in fairly specific ways that utilize our unique expertise.

Subject librarian collaborates with OSC. In this case, the subject librarian partners with OSC while learning more about the scholarly communication issue, program or IT system. Usually, in the beginning of any project, the Subject Librarian lets the OSC team lead and then gradually assumes greater responsibility to lead the program. While the project may move forward based upon customer's needs, subject librarians have the option to build their skills and knowledge at their own pace. Either OSC or the subject librarian manages communication with the campus community.

Subject librarian does not collaborate with OSC. In many cases, subject librarians may not be interested or have the capacity to participate in OSC programs or initiatives – which is completely understandable. In this case, OSC works with the campus community directly.

There are three advantages to this strategy. First, our programs benefit from the expertise and contextual knowledge of the team in those cases where we partner with subject librarians. Second, our strategy provides the opportunity to expand the skills and knowledge of librarians through projects that directly contribute to annual evaluations and tenure & promotion. In fact, we have examples where subject librarians changed their roles as their knowledge and confidence increased. Finally (and most importantly), this strategy provides agency to the subject librarian to choose the role that best serves their career and the role they play in the library.

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[12] https://en.wikipedia.org/wiki/Cognitive_apprenticeship