NASIG Core Competencies for Scholarly Communication Librarians

Final Version

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Introduction

The following Core Competencies for Scholarly Communication Librarians were developed out of research and discussion conducted by the NASIG Scholarly Communication Core Competencies Task Force. Scholarly communication is defined by ACRL as "the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use. The system includes both formal means of communication, such as publication in peer-reviewed journals, and informal channels, such as electronic listservs (Association of College & Research Libraries, "Principles and Strategies for the Reform of Scholarly Communication 1," 2003). The specific duties of the scholarly communication librarian (SCL), though, may be broad and amorphous. Variety is the only constant in the job duties of SCLs and responsibility for the full suite of competencies is beyond the reach of even the most accomplished librarian. Moreover, though a single librarian may be responsible for leading these efforts, scholarly communication impacts all librarians, and as such, specific duties are often diffused through an organization. The leadership exemplified by the SCL also may occur at different levels of an organization, from entry level to senior administration, and usually entails a specific focus within the broad scholarly communication space.

Keeping the extensive and amorphous nature of competencies in mind, along with the variety of areas of emphasis found within the scholarly communication space, the task force proposes the following as a tool box. Our tool box consists of four themes that are found in all SCLs and five areas of emphasis that are commonly, though not always, associated with the SCL and core competencies within these six areas. In this framework, the hiring library is largely responsible for establishing the appropriate "tool for the job" by focusing job ads and position descriptions

on one or more areas of emphasis as determined by its current staffing, organizational goals, and the institutional culture in which it is embedded.

The five areas of emphasis with enumerated core competencies include some overlap with the four roles listed in the Joint Task Force's "Librarians' Competencies Profile for Scholarly Communication and Open Access." Whereas this Core Competencies document integrates research data management into our Core Competencies framework, the Joint Task Force has issued a separate "Librarians' Competencies Profile for Research Data Management."

Themes

1. Background Knowledge

Background knowledge for the SCL at most institutions - no matter the librarian's role(s) - includes a number of common themes. Much of this knowledge is acquired through library and information science curriculum, in non-library jobs, or is learned in other positions held in the library. The foremost commonality is deep knowledge of the Open Access movement and its impact on the scholarly publishing landscape, digital preservation, relevant metadata schemata and standards, copyright, and the development and implementation of organizational and institutional open access policies. Project management responsibilities appear almost uniformly across most scholarly communications positions. SCLs commonly require an understanding of the legislative environment, especially regarding copyright, Open Educational Resources (OER) and public access requirements.

2. Technical Skills

An active awareness of new technologies and the impact they have on a rapidly changing scholarly communication landscape is generally of greater importance for the SCL than deep technical expertise in any single venue. These technical skills will vary owing to the areas of responsibility outlined below and the staffing and structure of the individual librarian's

institution. Some broad general understanding of repository platforms, data management solutions, publishing platforms, and faculty profiling systems as well as the interrelations between these systems is essential. A deep technical understanding of one or more of these may be required of the SCL, beyond ALA's Core Competencies of Librarianship related to technology, but not in all cases.

3. Outreach and Instruction

The SCL is actively engaged with a rapidly-changing landscape that necessitates clear communication, advocacy, and outreach involving many different internal and external audiences. This professional and scholarly engagement with the field is essential for effective outreach and instruction. The successful SCL advocates for Open Access, including author's rights, open access to research, data, and Open Educational Resources (OERs). The SCL also recognizes that in keeping with the ACRL Framework for Information Literacy for Higher Education, scholarship is a conversation. As such, "established power and authority structures may influence [scholars'] ability to participate and can privilege certain voices and information." Identifying those power and authority structures, understanding their impact on scholars, and educating individuals on effective ways to navigate, evaluate, and contributing to the scholarly conversation are an important part of the SCL's role.

The development of educational programming, often in conjunction with internationally recognized events (such as Open Access Week), online learning objects (such as LibGuides or course management systems), and instruction in areas of scholarly communication literacy for both faculty and students commonly falls under the responsibilities of the SCL.

4. Team Building

The role of the SCL is fundamentally collaborative. Regardless of area(s) of emphasis, the SCL will be responsible for building cross-departmental teams and managing projects to leverage the expertise of other librarians and researchers. For example, the SCL may work with technical services librarians on metadata creation and application, copyright librarians and subject

liaisons on educational efforts, researchers on author's rights, or programmers on institutional repository (IR) support. The SCL may also directly supervise employees to effectively carry out assigned duties.

Potential Areas of Emphasis

1. Institutional Repository Management

SCLs often play a role in IR development, advocacy, and management. An understanding of institutional goals for the repository initiative and ability to articulate those goals is critical. The SCL should also be fluent in the best practices for IR content recruitment and description, as well as managing the supporting technical infrastructure. The depth of understanding of the latter will depend on the organizational structure of the institution and the degree to which the SCL is responsible for the technical management of the institutional repository.

Core competencies in this area of emphasis will encompass a subset of the following in addition to the common themes identified earlier.

- **Collect, store, and preserve faculty, staff, and student intellectual output:** A thorough understanding of the university's research strengths and student learning outcomes is necessary. The SCL builds relationships across campus and aligns the goals of the IR with those producing research.
- **Knowledge of and ability to apply publisher policies on archiving:** Critical to IR management is a thorough understanding of copyright, particularly publisher archiving policies. The SCL must have a thorough understanding of copyright in general, copyright transfer agreements and be able to clearly articulate the terms of those agreements to researchers.
- **Knowledge of and ability to apply metadata schemata:** Often in collaboration with technical services staff and research partners, the SCL must understand and have the ability to apply appropriate metadata schemata. This role is increasingly important as new means of interoperability among existing repositories are explored. The degree to which metadata creation and application falls to the SCL will depend on existing technical services staff resources.

- **Knowledge of and experience with repository solutions:** A broad understanding of both hosted and open source repository solutions is necessary. The depth of understanding of a particular repository solution will depend on the solution implemented at the SCL's institution, the degree to which the librarian is responsible for managing that solution, and the extent of programming staff available to support the repository.
- **Ability to develop policies:** In collaboration with other librarians, researchers on campus, general counsel and in the case of electronic theses and dissertations, the graduate school, the SCL may contribute to the development and implementation of policies related to open access, collection development, digital preservation, copyright and copyright services, and publisher embargoes.
- **Reporting statistics in support of outreach and education:** Usage data from the repository may be used in outreach, instruction, and promotional efforts. The degree to which the SCL is responsible for generating those statistics will depend on the depth of his or her responsibilities in managing the repository.

2. Publishing Services

Publishing responsibilities for the SCL will vary significantly from one institution to the next. Many of those involved in publishing find their responsibilities extend to actively educating, training and being an advocate for open access. Some SCLs may write or be principal investigators on grants to fund publishing initiatives, or have knowledge of or use image-editing software, or create epub and other ebook formats.

SCLs involved in publishing may work with journals, monographs, conference proceedings, open educational resources (OERs) or digital humanities/digital scholarship projects. Such services may be accomplished solely through the library, in collaboration with a university press, or via consortial publishing. These SCLs should have a thorough understanding of the current traditional and open access publishing landscapes, including options for licensing.

Core competencies in this area of emphasis will encompass a subset of the following in addition to the common themes identified earlier.

- **Knowledge of and experience with publishing platforms:** The SCL should have knowledge of/experience with both open source and hosted publishing solutions and e-publishing tools.
- **Knowledge of and experience with the full life cycle of publishing**: The SCL may assist researchers in any step of the publishing process from editorial workflows to digital preservation and accessibility. The SCL may also be asked to participate in the development and/or evaluation of memoranda of agreement/understanding with publishing partners. The SCL should have the ability to plan and coordinate ingestion and migration of archival content which may require relevant computer skills such as Excel and/or XML.
- **Knowledge and experience with minting identifiers:** Including Crossref or Datacite DOIs, Handles, ORCiDs, and ISSNs at the personal or organizational level.
- **Possess a basic knowledge of relevant metadata schemata:** The SCL may coordinate metadata deposits with CrossRef, EZID, the Directory of Open Access Journals (DOAJ), and journal aggregators requiring an understanding of schemata, e.g., Dublin Core.
- **Provide technical support:** Service levels may vary depending on open source or hosted platforms. The SCL may provide initial set up, ongoing troubleshooting for individual publications, or collaborate with hosted support. A hosted solution often provides complete technology support, but SCLs may need to add content and maintain web pages for editors.
- **Perform system administration and programming:** SCLs using an open source system may oversee both the systems-side management and programming as well as front end administrator roles, while others may have IT support providing the former.
- **Collect and disseminate assessment metrics:** In coordination with other staff, the SCL may develop assessment metrics to measure effectiveness and impact of services.

3. Copyright Services

Copyright issues pervade librarianship, but copyright services offered internally and externally vary by institution. Some libraries have dedicated copyright specialists, but all SCLs need a general understanding of copyright law and related agreements, and an awareness of the judicial environment. SCLs with an emphasis on copyright services must have much more in-

depth understanding of copyright law generally and fair use and license interpretation in particular.

Outreach and education, as opposed to offering legal advice, are important components of the SCL's copyright services. These SCLs are often called upon to conduct education and outreach regarding the application of the law and its exceptions as described below, as well as legal and ethical use of copyrighted materials by faculty, staff, and students. They may perform this work in concert with a variety of other units within and outside the library, including, but not limited to, university counsel, access services librarians (ILL/reserves), offices of technology transfer and/or university research, campus units devoted to online education, and campus IT.

Core competencies in this area of emphasis will encompass a subset of the following in addition to the common themes identified earlier.

- **Knowledge of pertinent national copyright law:** For U.S. copyright law, SCLs should be familiar with the following:
    - Exclusive rights and duration
    - Exemptions and their applications, which may include the following:
        - Fair use (§107)
        - Teaching exemptions: within U.S. law, familiarity with the classroom exemption (§110.1) and the TEACH Act (§110.2)
        - Exemptions for libraries to make copies of items for research and preservation purposes (§108).
    - Public domain: Items in the public domain either have expired copyrights or were dedicated. SCLs should be able to explain what this means for use of an item and help researchers determine whether an item is in the public domain.
    - Effects of international treaties including differences in copyright duration.
- **Awareness of the judicial environment:** SCLs should follow major copyright cases and consider potential effects of these cases on local practices (e.g., Google Books Case, HathiTrust, or Georgia State University reserves).
- **Understanding of author's rights:** SCLs understand the nuances surrounding rights of authors as copyright holders and encourage them to engage with publishers to retain the rights the authors desire. Additionally, SCLs should have a fluency in publication agreements and contract addenda and be prepared to explain them to authors. SCLs should also have an understanding of Creative Commons licenses and know how to apply them.

- **Knowledge of orphan works:** SCLs should be aware that orphan works exist and know best practices in seeking out permission or making fair use determinations for their use or digitization.
- **Performing licensing services:** In some institutions, SCLs are called upon to help interpret or draft licenses for the use of materials. SCLs may also be asked to determine if there is an existing license for a copyrighted item either from a subscription license through the university or on a pay-per-use service through a collective rights organization or a corporation.
- **Handling permission requests:** SCLs should recognize necessary elements of a permissions request for uses that do not qualify as fair. In some institutions, the SCL may help draft or send permissions requests or provide permission request letter templates.
- **Campus copyright policies:** SCLs should know their campus copyright policies and may be called upon to offer guidance in understanding use and ownership of works produced by campus authors. SCLs may also be called upon to draft copyright policies for the university. In addition, if offering copyright consultations and services, SCLs may draft copyright services policies and procedures.

4. Data Management Services

Largely as a result of federal mandates, the provision of data management services is of increasing importance to all academic librarians. These mandates, in conjunction with the continued and dramatic shifts in the nature of the scholarly record itself, are particularly well-aligned with the duties of the SCL. As a result, the SCL will often play some role in the provision of data management services, and related outreach and educational efforts, and may provide these as an area of emphasis.

Core competencies in this area of emphasis will encompass a subset of the following in addition to the common themes identified earlier.

- **Data description and storage:** The SCL may collaborate with researchers, technical services librarians, and central computing to develop and apply metadata schemata to

researcher-generated data sets and collaborate on the development of technical solutions to preserve and share data sets.

- **Data management planning:** The SCL may work with institutional research offices and faculty researchers to advise on the data management planning portions of grant applications. This will involve familiarity with training and tools such as the University of California DMPTool (data management planning tool), and RDMRose.
- **Knowledge of and ability to apply funder mandates related to data storage, access, and retention:** The data management landscape is rapidly developing. Fulfillment of this competency requires active engagement in the profession and legislative environment while building internal teams to educate the campus community and meet emerging research data management needs.
- **Knowledge of and experience with open source and hosted data repository solutions:** A broad understanding of data repository solutions is necessary, but the depth of that knowledge will be determined by the existing institutional infrastructure. The SCL should be aware of the capabilities of current institutional repositories for supporting data management (e.g. DSpace, Digital Commons, Fedora) as well as general data-specific repositories (e.g. Figshare, Dryad) and be able to identify appropriate subject-specific data repositories.
- **Collection development, organization of, and access to third party data sets:** In addition to managing research data produced at the SCL's campus, the SCL may be involved in the purchasing, organization of, and access to third party data sets for use in research and education.
- **Optional:** knowledge of text and data mining (TDM) within the context of local research and awareness of the licensing requirements for local TDM needs as well as the application of copyright law, specifically fair use analyses, in TDM, when possible.

5. Assessment and Impact Metrics

Librarians have for some time helped authors determine the impact of their scholarship, notably through citation counts and providing access to journal impact factors. These metrics are now enhanced by additional measurements of the use and impact of a wider array of scholarly products. Often described as altmetrics, these measures of impact can be calculated for articles, books, datasets, presentations, source code, and other research output. SCLs need

to know this landscape of metrics and be comfortable conducting additional assessment activities such as working with authors on the representation of their scholarly works in faculty profile systems or faculty activity reporting systems. SCLs are also called upon to assess journals for impact and quality when faculty authors are trying to determine where to submit their manuscripts.

Core competencies in this area of emphasis will encompass a subset of the following in addition to the common themes identified earlier.

- **Understanding of indicators of research impact, their strengths and limitations.** SCLs should have familiarity of a wide range of research assessment methods and research impact metrics, such as bibliometrics and altmetrics, as well as qualitative measures, such as expert peer reviews. In addition, research can be assessed by four levels research output: individual scholarly contributions, such as journal articles; venues of scholarly research, such as journals; author output over time, and group or institutional output (Roemer & Borchardt, 2015). SCLs should be aware of the limitations of the different indicators of research impact and that an individual indicator or metric does not automatically denote quality. Finally, SCLs should stay abreast the continuously changing environment of research impact metrics and criticisms of their misuse, such as the Journal Impact Factor (JIF) used solely to assess an individual author for career advancement or grant funding.
- **Understanding of emerging alternative measures of impact:** SCLs should be familiar with altmetrics at the individual and institutional levels, article level (e.g. SNIP), journal level (e.g. Eigenfactor), h-index (journal level or author level), as well as tools to present them (e.g. Plum, Altmetric.com, PLOS).
- **Knowledge of faculty profile systems and academic social networks:** Many academic institutions have implemented faculty profile systems such as VIVO or PURE to highlight the productivity of their faculty and create opportunities for collaboration. Faculty authors have rapidly adopted various academic social networks such as ResearchGate, Academia.edu, and Mendeley, which permit them to create individual profiles, list their achievements, and share versions of their articles. SCLs are poised to help authors list their publications and share appropriate versions of the articles on these systems.
- **Knowledge of faculty activity reporting systems:** Many colleges and universities require that their faculty record their teaching, research, and scholarship in faculty activity reporting systems (e.g. Digital Measures, Sedona, Elements, Data180). SCLs' understanding of the publishing landscape is an expertise that can benefit the faculty

members. Some of these reporting systems offer direct deposit to institutional repositories, and some of them incorporate citations and altmetrics scores. SCLs can help set up and confirm deposits and interpret impact scores.

- **Evaluation of journals (open access and traditional):** Often in collaboration with subject liaisons and departmental faculty, SCLs assess journals for impact and evidence of publication rigor, or help faculty discover new outlets for their research. SCLs may provide information regarding metrics to tenure and promotion committees as requested.

Personal Strengths

All SCLs should be prepared to deal with a fast-paced environment and community. In addition, the field requires collaboration with multiple units and departments within an SCL's institution as well as in multiple regional and national organizations, associations, and outside institutions. The SCL should also seek continuing education on the current trends, topics, and issues in scholarly communication by attending webinars and conferences and by reading current and relevant materials on topics such as data management and services, open access, legislative environment, digital preservation, impact metrics, metadata schemata, and so forth. The SCL offers a diverse number of skills and services to his or her academic institution, and therefore, the personal strengths of the SCL are dynamic and adaptive in order to accommodate the nature of scholarly communication.

Generally, these strengths include the following:

- **Collaboration:** In addition to outreach and education efforts previously discussed, the SCL's collaborations will enhance relationships with the institution's library and strengthen scholarly communication initiatives. Further collaboration includes partnerships on national and international levels. For instance, the SCL may join a national committee or task force to contribute insight while also gaining professional development.
- **Communication skills (oral and written):** The SCL has a responsibility to communicate the goals and projects of scholarly communication tasks within and outside his or her

institution through formal written documentation, such as policy documents, strategic plans, and mission and vision statements; scholarly publications, such as peer-reviewed articles and conference proceedings; and formal e-mails to colleagues. In addition, the SCL will have some expectation to engage with colleagues through face to face meetings, as well as public speaking at his or her institution and in more formal settings, such as at conferences and symposia.

- **Enthusiasm/ambition:** Communicating effectively is crucial for the SCL, but communicating enthusiastically is equally important when reaching out to other members of the community outside of the library or scholarly communication field. In addition, creativity in developing and implementing initiatives requires ambition, especially if the SCL needs support from other institutional or external stakeholders.
- **Generalist:** It is the responsibility of the SCL to be familiar with the environment of scholarship and publishing in various fields as well as be able to generalize across disciplines for the purposes of communicating quickly and effectively.
- **Comfort with change and ambiguity:** The ambiguous nature of scholarly communication and academia demands a librarian that is adaptable and comfortable with change. The climate of scholarly communication is in a constant state of flux, and the SCL must be able adapt to changing conditions and expectations at his or her institution and within organizations and associations.
- **Personable:** Effective and enthusiastic communication provides a means to deliver the SCL's message successfully. Ultimately, the lasting impression should be one of goodwill.

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