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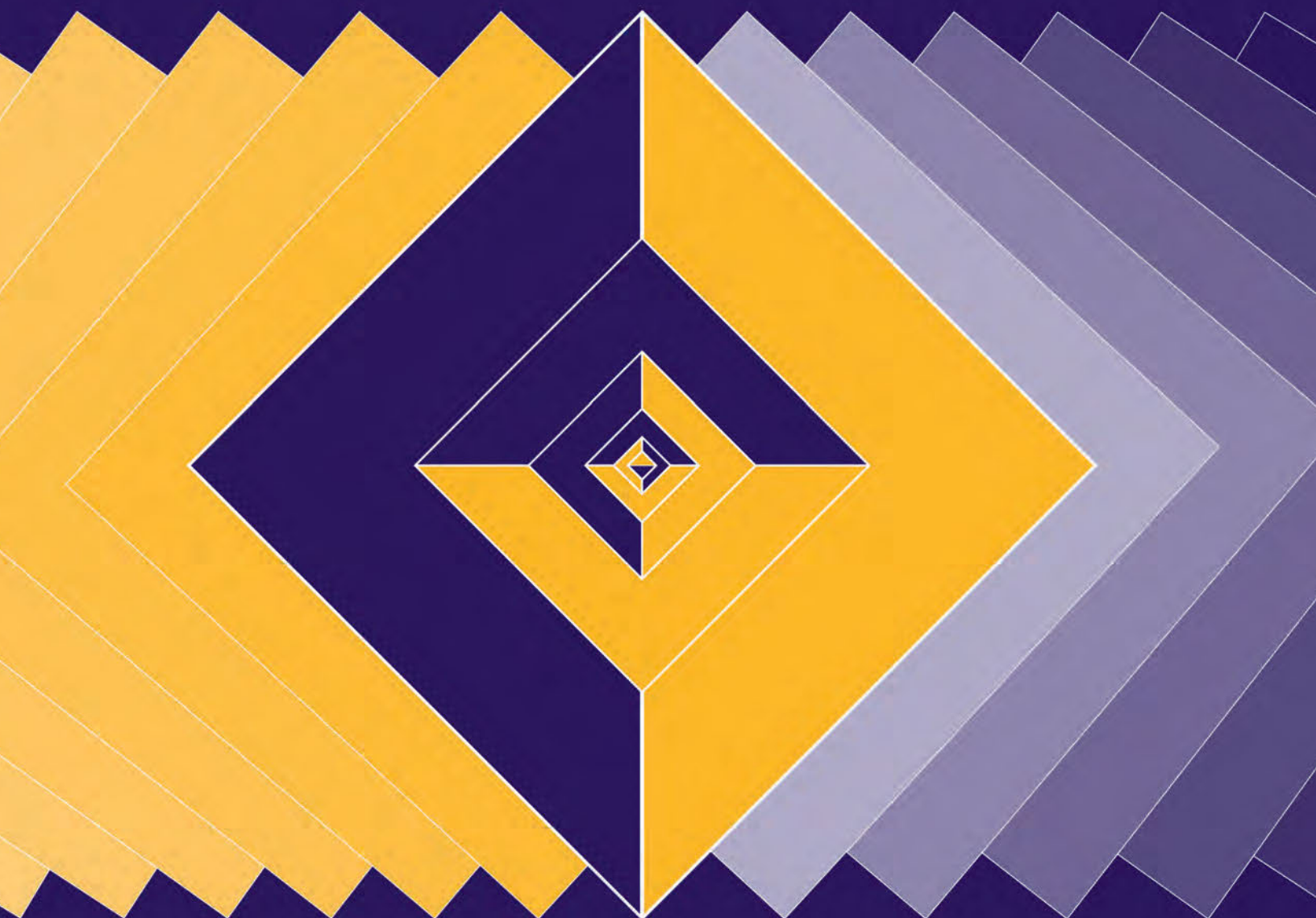
Kit 346

Scholarly Output Assessment Activities
May 2015

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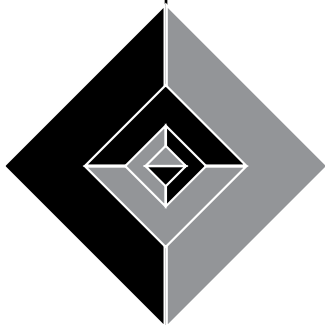
SPEC Kit 346

Scholarly Output Assessment Activities

May 2015

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ASSOCIATION OF RESEARCH LIBRARIES®

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SURVEY RESULTS

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SURVEY RESULTS

EXECUTIVE SUMMARY

Introduction

Traditional measures to quantify scholarly outputs and impact based on "counts" (number of publications, number of citations, journal impact factor scores, etc.) are not sufficiently robust for new forms of digital scholarship processes, nor are they meaningful for specific audiences such as the general public. Those measures are now being supplemented with other metrics, for example usage or downloads on publisher, repository, or other journal platforms; the h-index; or non-citation metrics that represent social or academic engagement of scholarly processes by scholarly and non-scholarly audiences. The proliferation of these new metrics is mirrored by the emergence of new resources that provide tools for tracking and reporting scholarly outputs and impact. Understanding the full array of newer metrics and tools and how they play a role in assessment of scholarly output and impact will become increasingly important for research libraries as the metrics become more widely available and employed by funding agencies, publishers, academic departments, and institutions.

In light of the movement towards reporting scholarly outputs and impact to demonstrate tangible and meaningful outcomes, the purpose of this survey was to obtain a snapshot of current activities undertaken by ARL member libraries in the assessment of scholarly output and impact, provide examples for other research libraries to emulate, and identify trends that may represent promising indicators for transformative service models for ARL libraries. The survey was distributed to the 125 ARL member libraries in early January 2015. Seventy-nine libraries (63%) responded by the February 17, 2015 deadline.

Services

Seventy-six of the respondents (96%) reported that their library provides services that relate to scholarly output assessment, such as reports, resource guides, consultation, and education. Two respondents reported that they are considering developing services, and one responded that another unit in the institution provides these services.

Consultation or guidance on bibliometrics is the most common library service (70 respondents, or 92%), followed closely by consultation on article-level metrics, database usage for tracking of scholarly outputs (79% each), and author disambiguation (75%). The majority of respondents also provide or plan to provide publication/citation reports (54 respondents) and institutional repository reports for authors (61 respondents). Some libraries are offering graphs or charts for illustrative purposes (20 respondents).

Other examples of services were impressive. One library reported that, "Liaison librarians do occasional large-scale bibliometrics projects, tracking faculty publications for a center or department." Another reported offering bibliometrics and best practices "based upon specific disciplines and fields." Other services include consultation on faculty credentialing, assistance with scholarly network profiles and identities, tips to enhance collaboration among scholars, text analysis, and guidance on various products such as ORCID, Mendeley, Altmetric.com, Scopus, and Web of Science. Most of the libraries offer scholarly output assessment services to all library users. Twenty-two respondents (29%) limit services to specific user groups, typically affiliated faculty, students, researchers, and staff.

There appears to be no single universal service model for scholarly output assessment services. The majority of respondents reported that services are provided informally on an ad hoc basis rather than in a coordinated fashion within the organizational structure of the library. As one commented, "It is a 'toe in the water,' not a fully developed service." The service model for scholarly output assessment services appears to be in the initial phases of development and perhaps represents a promising indicator of an emergent model, "a rapidly growing area for libraries," as one respondent noted. Others commented that, "Assessment will be a priority as it develops in areas of our new organizational structure" and "We recognize the importance of services in this area." Some respondents also reported plans to "develop a more well-defined set of services in this area" and to hire new staff devoted to scholarly output assessment services.

Training

The majority of responding libraries (49 or 64%) currently provide training related to scholarly output assessment. Three reported that training is in development, and 18 others are considering it. Training includes classes, workshops, informal one-on-one training sessions, drop-in sessions, brown-bag sessions, special events, and "one-on-one conversations with faculty." Some training is offered on a regular basis; others are ad hoc as requested by users. Only seven respondents (9%) have no plans to offer this type of training. One respondent noted that "a more integrated approach is planned for development in FY16 planning cycle."

A wide variety of course titles was reported: Article Level Metrics; Building Your Academic Profile; Citation Analysis; Citation Management; Collaboration; Communicating Research; Digital Humanities; Data Management; Determining Your Scholarly Impact; Scholarly Impact: Traditional and Alternative Metrics; Basics of Citation Metrics; Impact Measurements; MyResearch graduate series; SCOPUS: A Tool for Authors; Enhancing the Visibility and Impact of Your Research; Who is Citing Your Work?; Journal Impact Factors and Citation Analysis; Measuring Your Scholarly Impact; Library Tools for the Publication Cycle; to name a few. (See Q11 in the Survey Questions & Responses section for others.)

Content descriptions for training included "highlighting one or a mix of the following: overview of bibliometrics/altmetrics, h-index and Eigenfactor, Scopus and Web of Science comparison, Google Scholar, and InCites" and the "significance of h-index for scholarly output assessment." One description of a workshop included learning outcomes: "This hands-on and practical workshop will focus on the three areas of article, author, and journal assessments. Participants will become familiar with different multifaceted citation analysis using a variety of metrics and their implications."

Training is provided to faculty, students, researchers, and administrative staff. Some specific target audiences reported by respondents include media relations staff, graduate students, research coordinators, and early-stage faculty. Some training efforts are also tailored for specific areas of study such as science, health science, humanities, and education.

Software and Resources

Survey respondents recommend a variety of scholarly output assessment software and related resources (subscription and free) to library users. The most frequently recommended resources are bibliographic citation databases, such as Web of Science, Google Scholar, and Scopus, and resources that provide journal metrics, such as Journal Citation Reports. Some respondents reported recommending or using resources that capture non-citation data such as ImpactStory (36 respondents), Altmetric.com (30 respondents), and Plum Analytics (7 respondents plus another 22 that are considering it). A few respondents recommend visualization software, such as NodeXL, Tableau, Sci2, Gephi, and Wordle. Forty-six respondents (61%) reported that they do not do cost sharing for subscription resources. Twenty-nine (39%) reported sharing costs with campus administration units such as the Office of the Provost, Office of Research, or the Office of Institutional Analysis.

Staffing

The survey asked respondents to list job titles for librarians involved with scholarly output assessment

services. Sixty-two respondents listed 152 job titles. The majority of respondents indicated that scholarly output assessment services are performed by subject or liaison libraries. Seventy-two titles were for liaison, subject, or departmental librarians. One respondent commented that existing "liaison librarians provide many of these services to their constituents as part of their professional assignment." Fifty-one titles were related to scholarly communications, repository, or digital scholarship/research. Other titles were administrative, generic, or related to data, collection, or learning (see Q17).

Sixteen respondents reported that they are hiring new staff specifically for scholarly output assessment services. One library reported, "We currently are accepting applications for a new position of Scholarly Assessment Librarian." Another is "currently building an Office of Research to support the research activities of faculty and students. This will include increased attention on scholarly analytics and collaboration with other units on campus." Twenty libraries reported that they are reallocating staff. One commented, "It is not so much the reallocation or addition of staff as the realignment of existing subject specialist roles to support bibliometric analysis and publication analytics."

The survey also asked what skill sets staff need to provide scholarly output assessment services (see Q13). Many respondents reported that librarians needed to learn about new resources or methodologies but few mentioned formal training. Some skills noted were: data analysis and management; executing data visualization; understanding of different metrics such as the h-index, altmetrics, and the Eigenfactor, and their limits and potential applications; being aware of discipline specific scholarly output trends; and creating narratives based on analyses, to name a few. One respondent noted two specific skill sets: "having to spend time learning the new tools that are entering the market and staying vigilant on top of new trends." Proficiency with the following resources was noted: Excel, Scopus, Web of Science, Google Analytics, Altmetric.com, ORCID, ImpactStory; Plum Analytics, InCites, Google Scholar, and social network analysis tools.

As to how library staff acquire skill sets, some respondents reported that library staff are "self-directed" and "self-taught," and that "this is what liaison librarians do to support our learning, teaching, and research mission for the library and campus...nothing new." Attending conferences (72 responses, or 96%) and webinars or continuing education classes (68, or 91%) were reported as common ways for staff to keep abreast of the latest trends related to scholarly output assessment services. Other ways include Twitter and other social media outlets, vendors, and involvement with different research communities on campus. Some libraries also reported providing internal seminars for librarians for training on scholarly output assessment services. (See Resources for Current Awareness in the Selected Resources section.)

Partnerships

Forty libraries (53%) have partnerships with other campus units for assessment activities and 20 others (27%) are in the process of planning partnerships. Only two respondents reported that they tried to initiate a partnership without success. Examples of partnerships with campus units include the Office of Institutional Analysis, Graduate School, Office of Research, Office of the Provost, and Office of Sponsored Research, among others. Partnership efforts include implementing ORCID at a campus-wide level, providing bibliometrics/research impact workshops, facilitating faculty profile systems such as VIVO, serving on tracking and evaluation teams for Clinical and Translational Science Award (CTSA) programs, reviewing scholarly output assessment software options, providing patent citation training sessions, implementation of Symplectic Elements and the connection to the institutional repository, and working on a bibliometric project to quantify monographic output of faculty, to name a few.

Several respondents reported that partnerships are important to the library and represent a growth area for library services: "It's important to be able to show impact of our university's research for a variety of reasons, and library staff are well placed to understand how best to do this." Some respondents also noted issues with redundancy among campus units: "This

is complicated by the fact that other institutional support and assessment offices like Institutional Analysis and Sponsored Programs see this as their function and tend to act independently of the library."

Marketing and Publicity

Seventy-three respondents indicated one or more methods the library uses to promote scholarly output assessment services. Of these, 54 respondents (74%) use word of mouth to promote their resources and services. The majority of respondents also use LibGuides and library websites (66% and 60% respectively), while flyers and brochures are the least used methods of promotion (21% and 16% respectively). Other methods specifically identified by respondents include emails to faculty, library-held wine and cheese events, brown bag lunches at departments, communications on electronic display boards, announcements from university public affairs, and presentations at faculty departmental meetings.

Advice

Forty-three respondents provided advice to their peers about scholarly output assessment services. The importance of faculty and administration partners to success was a common theme. As one respondent noted, providing the services themselves can help "build faculty-library liaison relationships." The need to understand and respond to different departmental needs and disciplinary differences was another recognized theme for building successful partnerships. The number of tools and continued "flux" of scholarly output assessment services was highlighted as a challenge for librarians. Hiring or encouraging librarians to develop expertise in this area to serve as technical leads or coordinators for efforts was recommended by several respondents. One recommendation was to "have a dedicated position who keeps abreast of emerging products and resources and then provides staff development for other faculty and staff." Another recommendation was to build programs around actual researcher scenarios such as "funding applications, dossiers for renewal and tenure, annual reports, and promotion."

Understanding and communicating the strengths and weaknesses of available tools and measures was also recognized as an important component of scholarly output assessment services provided by librarians. One library commented that tools for scholarly output assessment services have limitations and to "be mindful and explicit about this as you introduce, discuss, and utilize them." Another respondent advised honesty about the limitations of bibliographic tools and "to always make caveats explicit."

Trends

Fifty-nine respondents identified future trends that have implications for scholarly output assessment services in libraries. Several respondents identified alternative metrics, author identifier profile systems, and the assessment of scholarly output beyond traditional publications, including data, as trends. The proper and evolving use of appropriate metrics across disciplines was also reported as an important trend, as was recognition of scholarly output in other formats such as data, digital humanities, or other digital objects. Concerns include the accuracy of data sources, data standardization, data aggregation, data interoperability, and author name ambiguity. Respondents identified adoption of unique author identifier profile systems, such as ORCID, as being a promising development. Other challenges noted by respondents include proliferation and cost of resources, political and discipline-specific issues related to promotion and tenure, staff development needs, and keeping abreast of trends including federal research requirements.

Conclusions

Based on the survey responses, the majority of the responding ARL member libraries engage in a variety of activities related to scholarly output assessment. These activities reflect the diversity of ways that scholars are creating and disseminating scholarly outputs to communicate scholarship, as well as the methods and tools for measuring scholarly impact. The activities range from formal programs with staff dedicated to scholarly output assessment services to providing just-in-time information on resources, tools, or metrics.

Many libraries reported partnerships with various campus units outside of the library. These partnerships demonstrate alliances with the campus community to leverage opportunities for expertise and

resource sharing to benefit all parties involved in the scholarly communication process.

Research libraries offer substantial expertise in navigating the ever-expanding array of tools that exist to illustrate a narrative based on scholarly productivity and impact. They help authors manage their scholarly identities, provide options for creating and disseminating scholarly outputs, offer strategies to enhance discoverability of scholarly outputs, help authors efficiently track scholarly outputs and impact, provide resources and tools to help authors assess their scholarly impact, create publication reports and social network maps for reporting purposes, and offer guidance and training on new trends and tools for reporting of impact.

The authors hope that the survey inspires ARL libraries to consider ways they can incorporate scholarly output assessment services into their service models. As one respondent noted, "This survey has prompted several conversations and ideas for further development in this area."

SURVEY QUESTIONS AND RESPONSES

The SPEC Survey on Scholarly Output Assessment Activities was designed by **Ruth Lewis**, Scholarly Communications Coordinator & Science Librarian at Washington University Libraries in St. Louis, and **Cathy C. Sarli**, Senior Librarian for Evaluation and Assessment Services, and **Amy M. Suiter**, Scholarly Publishing Librarian, Washington University School of Medicine in St. Louis, Becker Medical Library. These results are based on data submitted by 79 of the 125 ARL member libraries (63%) by the deadline of February 17, 2015. The survey's introductory text and questions are reproduced below, followed by the response data and selected comments from the respondents.

Research libraries offer substantial expertise in navigating the ever-expanding array of resources that exist to illustrate a narrative based on scholarly productivity and impact. They help authors manage their profiles on author-based platforms; provide strategies to enhance discoverability of scholarly works; offer multiple avenues of dissemination for scholarly works; help authors efficiently track research outputs and activities; provide publication reports and social network maps; provide resources and tools to help authors assess their scholarly output and impact; and offer training on new trends and ways of reporting of scholarly efforts.

Learning about assessment of scholarly output at research libraries is increasingly critical in light of the changing landscape towards reporting of scholarly productivity and impact to demonstrate tangible and meaningful outcomes. Traditional measures to quantify scholarly productivity based on "counts" (number of publications, number of citations, journal impact factor scores, etc.) are insufficiently robust to meet the increasing demands of accountability and return on investment. Those measures are now being supplemented with other metrics such as usage or downloads on publisher, repository or other journal platforms; the h-index; or article-level metrics that represent social or academic engagement. Understanding the full array of newer metrics and how they play a role in assessment of scholarly output and impact will become increasingly important for research libraries as the metrics become more widely available and employed by funding agencies, publishers, and academic institutions.

Scholarly output is defined for survey purposes as articles, abstracts, patents, and books or book chapters. Digital technologies have enabled research outputs and processes that stretch far beyond these print forms. Within the ARL community, the SHared Access Research Ecosystem (SHARE) is developing a working definition of research processes and outcomes that includes the following scholarly outputs: publications, conference materials, intellectual properties, digitally-enabled forms including datasets, software, databases, and hybrid and emerging forms such as web-based narration, interactive sites or scripted events, websites, heterogeneous digital objects, and a range of media beyond print and static images. Respondents should feel free to consider these examples of scholarly outputs while answering the survey questions.

The purpose of the survey is to identify current research library practices, activities, or programs related to assisting scholars or researchers (individual and/or groups) with scholarly output assessment. The survey covers services and resources, training, staffing models, partnerships with the parent institution, marketing and publicity, and future trends.

SCHOLARLY OUTPUT ASSESSMENT SERVICES

Please note that this survey does **not** pertain to the assessment of library programs or any other type of assessment intended to measure the value of libraries and/or personnel.

1. Does your library or any unit of your library provide services to researchers that relate to scholarly output assessment, such as reports, resource guides, consultation, education, etc.? N=79

Yes	76	96%
Not yet, but we are considering developing services	2	3%
No, but another unit in the institution does	1	1%
Not yet, but such services are in development	0	—
No, and the library has no plans to provide such services	0	—

2. Please indicate which services your library currently provides or is developing and which are provided by another unit in your institution. Check all that apply. N=78

Services	Library currently provides	Library is developing	Another unit provides	N
Consultation or guidance on bibliometric measures such as the h-index, journal impact factor scores, etc.	70	3	2	73
Consultation or guidance on article-level metrics other than traditional citations	60	7	2	67
Consultation or guidance on author name issues	57	11	2	66
Consultation or guidance on databases to use for capturing or tracking scholarly outputs	60	3	3	63
Reports based on usage of scholarly works in an institutional repository	46	15	1	61
Publication reports (e.g., publication/citation reports, h-index reports, etc.)	48	6	6	56
Graphs, charts, infographics, or social network maps	20	6	7	31
Blogs maintained by the library	22	1	6	28
Other service	11	4	3	15
Total Respondents	76	33	19	78

If you selected "Other service/Library currently provides" above, please briefly describe the service. N=15

Altmetrics reporting service

Apart from our institutional repository statistical reports, available to anyone with an item in our repository, we can work with faculty to provide services on request.

Bibliometrics and Best Practices based upon specific disciplines and fields: a) Journal-based fields, b) Fields that are driven by manuscripts, c) Performance-based fields, and d) Grey Literature/Clinical Fields; LibGuides

Digital Scholarship hosting with usage reports, digital exhibit collaborative creation and hosting with usage reports, data set hosting in the institutional repository, collaborative events with attendance statistics and other reporting, consultative services through the liaison librarians for scholarly output and impact assessment and validation. Liaison librarians do occasional large-scale bibliometrics projects, tracking faculty publications for a center or department. Then under whether we limit services to a specific user groups I would say yes with the following description: Although almost all services are available to all users, in the case of large-scale bibliometrics projects, they are often limited to those with the capacity to pay for extended librarian time working on the project.

Health Sciences Library created LibGuide for SciVal.

Most of the services checked above are not part of a formal program. They are not marketed as services but may be available upon request depending on individual librarians' level of expertise.

Our graphs and charts are from a locally created repository download statistics service.

Our Health Sciences Library (which supports our College of Medicine and Medical Center) offers a systematic review service. The library hosts workshops to gain familiarity with the process of doing a systematic review since often times people don't really want to do such an extensive research project. If they would like to pursue it further, a librarian can be included in the research process of performing a systematic review. This level of involvement is on a cost recovery basis for librarian time and typically requires an active grant to pay for this charge as well as gaining access to relevant information for the systematic review in databases that the library does not subscribe to.

Pilot to evaluate the effect of a program on enhancing collaboration across institutions. Also looking for other ways to evaluate collaboration.

Provide guidance on strategies to enhance dissemination of research outputs and activities.

Research support services, such as use of Mendeley and scholarly networking consultations.

Subject guide on faculty credentialing

The library provides LibGuides and other online information resources to help educate scholars and researchers about their scholarly identity and output assessment. It has also offered a number of relevant workshops on these topics.

University Library provides digital humanities consultation and implementation (multi-model narrative, text analysis, tools and platforms, digital collections).

Workshops, presentations, consultations

If you selected "Other service/Library is developing" above, please briefly describe the service. N=14

Additional ORCID-related support is in development.

Central IT provides a blogging service.

Currently developing expanding to tracking supplementary materials and implementing altmetrics.

Developing and enhancing reporting in institutional repository.

Developing web resources around assessment and bibliometrics, article-level metrics, and other alt-metrics.

Institutional repository

The Libraries is proposing that the university subscribe to ORCID to help researchers with identity management.

The library is currently collaborating with the Office of the Vice Chancellor for Research to implement the PURE Researcher Information System for faculty and researchers on our campus. This will include additional network maps and an expert "fingerprint" about scholar's output.

The library is exploring various possibilities and is in the process of hiring an Assessment Librarian to work with library departments to develop these resources.

These are under development and in goals for the year.

We are currently building an IR that will provide usage reports for deposits.

We are evaluating software such as Altmetrics and determining how it might be used on our campus. We have librarians who can respond to specific requests in this area.

We are in the process of re-allocating resources.

We aspire to provide better analytics for the materials in our scholarly repository; we also hope to include other statistics, including downloads from SSRN. Also in the planning process is a workshop on maintaining a scholarly presence online.

If you selected "Other service/Another unit provides" above, please identify the unit and briefly describe the service. N=13

Academic departments usually provide publication reports and any associated graphs/charts.

Academic Social Media

E-Scholarship

Faculty of Medicine, Office of Institutional Research, is one example of where else this service is provided in the university, for the purposes of marketing, funding applications, performance indicators, etc.

I believe that the tenure review committees at our university develop reports about the impact of faculty publications during the tenure review process. The associate provost for research also maintains some metrics in these areas.

Office of Institutional Research (for tenure review). Not sure if service is provided directly to faculty.

The Faculty of Health Sciences is subscribing to SciVal to assess its faculty's scholarly output.

The Office of Institutional Research and Academic Planning provides access for deans to Academic Analytics.

The Office of the Provost sponsors and the Office of Information Technology supports Symplectic Elements, which includes reports of citation counts, author h-index, and alt metrics for faculty publications.

University's Office of Research funds and manages Elsevier's SciVal Expert subscription.

Various campus groups provide additional resources and services related to scholarly output assessment, notably VIVO and Campus IT for blog services.

Visualizations in our VIVO system (run by the provost's office) and Elements system (run by the library).

VP Research

3. Does your library limit any of the above services to specific user groups (e.g., affiliated scholars or researchers, specific departments, virtual or interdisciplinary research groups, administrative staff, support staff, or student categories)? N=76

Yes, available services are limited to specific users   22   29%
No, all available services are offered to all users   54   71%

4. If services are limited to specific users, please briefly describe which users may use which services. N=22

Affiliated scholars or researchers or their administrative/support staff

Current campus affiliates only

Department & school-level metrics typically requested by administrators and access limited to requestor and/or their department or school.

Faculty, researchers, administrators, postdoc scholars, and graduate students

Full time professors, graduate students, high administration employees (VPs and vice-VP's)

In the Medical Library, services are limited to authorized library users.

Library-provided resources have no limits, but Academic Analytics, provided by institutional research, is limited to deans.

Most services are available for all users but some services only available to faculty—particularly report generation for individuals.

Publication reports generated for departments are often limited to faculty authors.

Repository usage data (article download information) is only available to authors whose work appears in one repository collection, the collection housing articles under the Faculty Open Access Policy.

Research impact reports currently are only prepared to support grant applications.

Researchers whose primary affiliation is with the university.

Services are provided on an on-demand basis—there is no systematic program.

Students, faculty, and staff

Subject librarians have reported that they've worked with faculty. It may be that the service is available to all users, but we haven't marketed it in a concerted way.

There are services provided by the Biomedical Library that are restricted to faculty and researchers in the Medical Center clusters; similarly the Law Library provides services for Law faculty, not available to all university faculty.

They are limited at the moment but being developed for all. There may be discipline specific services that we aren't taking into account here.

To clarify, services are limited to specific users in the sense that they are offered only by a small set of subject librarians to faculty in departments whom they serve. Specific subject librarians know about and offer some of the information listed above, while other subject librarians are not as well acquainted with some of the topics listed. Those librarians who are familiar with these topics can assist their constituencies with them, while those subject librarians who are less familiar with those topics cannot. There is no campus-wide suite of services designed for all faculty at this time.

Training efforts are currently targeting faculty. Consultation/guidance is provided to faculty/graduate students upon request. Liaison librarians have developed one or two LibGuides, addressing scholarly outputs from specific disciplinary perspectives.

Undergraduate students and some university staff have limited access to the institutional repository, so most would not receive usage statistics.

University-affiliated faculty, staff, and students

We focus on providing services to our primary user population, which includes faculty, students, campus researchers, etc.

Additional Comments N=3

Note that services are not limited to specific users, but different groups have expressed different levels of interest.

This survey includes answers from the Legal Research Center (law) and University Library. Law provides service on request by faculty and promotion committee for internal purposes only, and thus their answer to the question above is "yes." At University Library (UL) digital humanities are available to faculty and graduate students. Other services not limited.

Though not limited, requests only come from faculty scholars.

5. **Please enter any additional comments you have on scholarly output assessment services.** N=20

All of the services listed above are provided by the University Libraries, but on an ad hoc basis (and mostly by subject librarians) rather than in a programmatic way. In regards to the service marked as "Library is developing," measuring and increasing research impact is a key focus area of the developing Research Commons. Resources related to scholarly output assessment are being gathered and eventually will be made available to researchers at the university through the Research Commons website and blog.

Aside from institutional repository (bepress) readership reports, these services are delivered by subject (reference) librarians.

At this time, aside from usage reports from our repository, the above-listed services are provided on a very ad hoc basis. No library-wide programmatic approach is currently in development, however it is something that will likely be coordinated by the Research Commons in the future.

Blogs are not scholarly output focused.

Generating reports for groups may be provided as a fee-based service depending on number of authors tracked.

It is a rapidly growing area for libraries and it is beneficial for scholars as well.

My answer makes it seem as though the library is providing services at a far greater level than we are. We now have three librarians who have some training in the research impact area and a subject guide that describes our services. It is a "toe in the water," not a fully developed services.

No formal advertising of these services; assistance is available on request.

No formal program, done on ad hoc basis by librarians. Repository-related pieces are integrated into repository services.

None of these services are widely marketed but are offered on an as-requested basis.

Our librarians in the health and natural sciences offer scholarly output assessment services while our librarians in the social sciences and humanities do not. We see a higher demand for scholarly output assessment services among our health and natural sciences researchers.

Our services are informal and as needed.

Scholarly output assessment will be a priority as it develops in areas of our new organizational structure.

Services are given by patron request mostly.

Services are not currently coordinated across the library system but are handled by the individual liaison and/or department, depending on the researchers served.

Services are provided informally, usually through direct request to subject specialists, or at a service point. No distinction made among groups of users except as noted directly above (also see comment above, re Law).

The above answers generally refer to the fact that we respond to questions about these topics. We don't currently provide a "service" related to bibliometrics, reports, etc.

We are interested in developing additional services (like those listed above) to be determined in consultation with faculty about their interests and needs.

We have had collaborations or requests from many different types of groups: editors of undergraduate student journals published through our institutional repository; Communication/Public Affairs; Institutional Planning Office; Research Office; various individual faculty members; departments; faculties; and research groups. We've also collaborated with graduate students in statistics and actuarial sciences for their expertise in conducting performance measurement work.

While we can and do offer assessment, there is no systematic provision or large scales requests for such information.

SCHOLARLY OUTPUT ASSESSMENT SOFTWARE/RESOURCES

6. Please indicate which of the following scholarly output assessment software/resources are used by library staff and/or are recommended to library user groups. Also indicate if your library is considering acquiring or using any of these tools that aren't currently available. Please make one selection per row. N=75

Software/Resources	Library recommends to users	For library staff internal use only	Library is considering acquiring or using	N
Web of Science	71	1	1	73
Google Scholar	70	0	0	70
Journal Citation Reports	68	2	0	70
Scopus	45	0	4	49
Altmetric.com	29	1	18	48
ImpactStory	34	2	8	44
SCImago	31	0	2	33
Book Citation Index	25	0	6	31
Plum Analytics	7	0	22	29

Software/Resources	Library recommends to users	For library staff internal use only	Library is considering acquiring or using	N
F1000	27	0	2	29
InCites	18	2	6	26
Publish or Perish	25	1	0	26
Symplectic	6	2	16	24
VIVO	6	3	13	22
Essential Science Indicators	18	2	2	22
SciVal	11	0	8	19
Wordle	12	5	1	18
Academic Analytics	2	8	4	14
Digital Measures	4	4	2	10
PURE	4	0	4	8
Harvard Profiles	2	0	3	5
NodeXL	4	0	0	4
Sci2	1	0	3	4
Other software	18	3	4	19
Total Respondents	75	23	50	75

If you selected "Other software/Library recommends to users" above, please identify the software. N=18

ArXiv (for physics articles)

bepress Digital Commons, which provides download/usage reports.

Google analytics is used by some University Library staff. Law checked "other software/for library use only" but did not provide an example; instead answered "libanalytics" in the "Other software/library recommends to users" box.

Hein Online's ScholarCheck. Note; several libraries cannot recommend Essential Science Indicators because they don't have access; it is medical campus only.

MyData (powered by Digital Measures: http://www.digitalmeasures.com/). Korean Citation Index (KCI) (http://www.kci.go.kr/kciportal/main.kci). Gephi (http://gephi.github.io/) to visualize social networking from data. ReaderMeter, ScienceCard, PLoS Impact Explorer, PaperCritic, Crowdometer. Note: Campus uses Academic Analytics for administrative scholarly output assessment purposes. We are also considering its use in the Libraries.

NINES.org, 18thConnect.org, and others within the Advanced Research Consortium (ARC)

ORCID, Tableau

ORCID, ResearchGate, ResearcherID, Mendeley

Our institutional repository software (bepress) provides reports and visualizations.

Our institutional repository. Also, discipline-based repositories (e.g., ArXiv, PubMed, SSRN, etc.)

PLoS, Medical Center Faculty Bibliography

Research Gate

Research Gate, HeinOnline author profiles, SSRN author profiles, MathSciNet

Research in View (training and support provided by the university's Office of Distance Education and eLearning.

Scholarometer

SciFinder

The university faculty survey, ORCID, Mendeley, Figshare (data)

We recommend the use of ORCID, Figshare, Research Gate, Academia.edu, Microsoft academic search profiles (particularly for visualizations).

If you selected "Other software/For library staff internal use only" above, please identify the software. N=3

Google Scholar, VIVO, and Web of Science are for library staff internal use at Law. University Library has access to Libanalytics, uses it for internal purposes unrelated to this survey's questions.

Tableau (Form wouldn't allow me to select Other for recommends and internal use but that's what I needed to do.)

We also have library staff only software created in-house by our system called California Digital Library Weighted Value.

Wordle use is widespread in the library, although I don't believe the library specifically offers it to users.

If you selected "Other software/Library is considering acquiring or using" above, please identify the software. N=4

Biomed Central

Converis, Research Gate, Data 180, Elsevier

Dataverse which provides view/download counts for data publications.

We are interested in VIVO as a tool for exploring faculty patterns of collaboration around campus and across universities. We are hoping to integrate some form of altmetrics into our institutional repository, hence our interest in Altmetric.com.

Additional Comments N=4

Eigenfactor.org

I have answered all questions as if the question reads "are used by *university* staff" as many of these services are used by colleges and academic units, not the library. Additional notes: the provost's office uses Academic Analytics for program review. A few colleges on campus utilize Digital Measures Activity Insights for activity reporting. Library staff is not involved with these projects, and assessment is generally considered an academic issue on the campus, the purview of departments, colleges, and the Office of the Provost. However, the library is taking a leading role, with financial support from the Office of the Vice Chancellor for Research, for the implementation of the Elsevier Pure Researcher

Profile system for campus in 2015. The library has LibGuides and web pages that recommend the use of resources such as ImpactStory, Scopus, and Web of Science.

Office of Research Services and Support paid for a one-time report from SciVal in 2014.

Some of these are in use by other units (like institutional research or the provost office) so are not recommended by the library per-se, but are available at the institution more generally.

7. **Does your library share the cost of any of these software/resources with another unit in your institution?** N=75

Yes   29   39%
No   46   61%

If yes, please specify the unit(s) that shares the cost with your library. N=29

Academic Analytics N=11

1–2 library staff can access but 100% of cost paid for by our Office of Institutional Analysis.

Campus Office of Institutional Research pays for this.

Full cost covered by another campus unit. Library does not control access, fund, or recommend this service.

Institutional Research

Office of Provost has AA subscription. Library has no access to this tool.

Our institutional research office pays for Academic Analytics.

Provost (2 responses)

The Office of Institutional Research and Academic Planning supports 100%.

This is service is purchased exclusively by campus administration and only available for their use.

University licensed the software at the top level of the university.

Altmetric.com N=1

Provost Office

Essential Science Indicators N=1

Paid for by library.

Harvard Profiles N=1

School of Medicine subscribes; Library does not yet have access.

ImpactStory N=1

Authors cover costs for their own profiles.

InCites N=4

Faculty of Medicine, Office of Institutional Research

If selected, library will look to share costs with academic departments.

Library used to pay portion when we used to subscribe; was cost shared with provost.

VP Research

Journal Citation Reports N=6

Health Sciences Library

Health Sciences Library cost shares.

Library pays.

Paid for by library.

We share cost UC-wide through California Digital Library.

With other UC's and CDL

Plum Analytics N=2

Office of Research Services; Office of Planning and Institutional Research

Paid for by library.

PURE N=3

Medical School

Office of the Vice Chancellor for Research

University System

SciVal N=10

Faculty & Staff Information System (FASIS) Division of Office of Human Resources

Faculty of Health Sciences (paying the subscription, giving Health/Natural Science librarians access to the tool)

Health Sciences Library

If selected, library will look to share costs with academic departments.

Medical School

Office of Knowledge Enterprise Development

Office of Research Services

Provost Office

University System

VP Research

Scopus N=7

Arizona Board of Regents

Health Sciences Library

Library pays, used for multiple purposes

OhioLink (consortial purchase)

Paid for by library.

We share cost UC-wide through California Digital Library.

With other UC's and CDL

Symplectic N=8

Central IT: Office of Research

Library considers implementation jointly with central university computing. Central IT will bear the cost of sub.

Provost and HSL

Provost Office

University Data Warehouse and Business Intelligence

University Information Technology

University office of Faculty Affairs pays for this.

University subscribes to one module for harvesting OA articles.

VIVO N=6

Central IT: Office of Research

Division of IT, Office of the Vice President for Research, Office of Academic Planning & Assessment

Provost and HSL

Provost Office, Office of Information Technology

University CTSI supports this

University office of Faculty Affairs supports this.

Web of Science N=8

HSL

Health Sciences Library cost shares.

Library pays

OhioLink (consortial purchase)

Paid for by library.

Provost's office

We share cost UC-wide through California Digital Library.

With other UC's and CDL

Other software N=7

ARC's groups are community supported

Digital Measures: campus site license in procurement, but not yet implemented.

Digital Measures: funded by Provost's Office

Digital Measures: individual colleges

Math SciNet is paid for by our system-wide library consortium.

NOTE: Law does not share costs.

University Data Warehouse and Business Intelligence

8. Are scholarly output assessment software/resources integrated in your institutional repository?
   N=77

Yes	39	51%
No	33	43%
Not applicable, we don't have an institutional repository	5	6%

If yes, please briefly describe the integration of the software/resources in the repository. N=35

A connector between Symplectic Elements and our institutional repository is the primary way faculty deposit into our IR.

Altmetric.com is integrated with the institutional repository, which is built on the Digital Commons platform from bepress. The platform itself tracks download counts and reports it on the repository homepage.

Altmetric

Altmetric scores are integrated at the item level, if the item has the proper DOI and the metadata fields are integrated. Our internal IT unit worked to develop that.

APIs to Web of Science

Authors and series administrators are provided use data on a monthly basis. Downloads are visualized on a global readership map.

Basic level: we use reporting features of the hosting software, bepress.

Bepress provides automatic usage reports directly to authors. We have the Altmetrics.com widget enabled in our DR for journal articles though what it covers is limited to articles with DOIs and with publisher contracts with Altmetrics.com.

Bepress provides Google Analytics and readership counts.

DSpace provides statistics, including the number and locations page view and file downloads.

DSpace's statistics

Google Analytics

Google Scholar

Internal statistics from DSpace

Minimal. We can get download reports. We are working on increasing capacity.

Our IR captures the number of page views and downloads for deposited files—both for individual files that one has deposited and for the total of files one has deposited.

Our IR platform, Digital Commons, provides usage and download statistics at the object, community, and repository level.

Our library uses the bepress IR platform, which has built-in download reports that are sent to authors. The Altmetrics API is also integrated into our IR system.

Plum Analytics

Plum Analytics is integrated in our institutional repository. The view/download counts from our IR will appear with the Plum Analytics statistics in the future.

PlumX is linked to our IR. All publications in IR have PlumX metrics embedded. In addition, all university researchers can request PlumX Profile (this is currently set up by library staff). We are developing mechanism by which end users will be able to set their own PlumX profiles. Symplectic, when implemented, will streamline the process of collecting research outputs of faculty thus providing us with more robust data sets for PlumX and other analytics (e.g., feed to SciVal or InCites, etc.)

Reports for individual titles are available via http://www.escholarship.org/.

Several sources are integrated with Symplectic Elements and VIVO.

The IDEALS institutional repository provides simple metrics for each item on total number of downloads, downloads this month, and downloads today.

The IR platform (DSpace) displays item-stats for views and downloads. An additional DSpace module provides deeper, more customized reporting, and web visits are tracked through Google Analytics.

The IR software includes the ability to automatically output usage statistics.

There is an author dashboard for tracking downloads.

Top downloads, usage stats, RSS

Usage reports are a feature of the IR, and an altmetric badge is integrated into IR.

Usage statistics are automatically tracked and sent using the SobekCM Open Source Repository Software (www.sobekrepository.org).

Usage statistics are provided to authors.

We currently provide download counts by item in our institutional repository.

We have a DSpace repository that allows us to track downloads and general usage statistics.

We license Digital Commons software, which provides monthly download reports to authors.

We use Google Analytics to assess the usage of repository content.

Additional Comment N=1

> We do get distribute usage/download reports from the IR, but I don't think that's what you mean.

9. **If scholarly output assessment software/resources are integrated in your institutional repository, do you provide repository usage reports?** N=39

Yes   34   87%
No   5   13%

If yes, please briefly describe the type of usage report. N=31

> Administrators of collections are emailed brief reports with page hits and file downloads. They can also view information like metadata views and locations that engaged with the material online.

> At this point, reports are limited to download counts by item.

> Authors and series administrators are provided use data on a monthly basis.

> Authors can request regular notification of downloads.

> Authors receive an email report on the number of times each work has been downloaded.

> Automated usage stats

> Basic downloads and hits

> Bepress provides automatic usage reports directly to authors. The Repository Coordinator also uploads Google Analytics and makes them freely available along with bepress comparisons with other repositories.

> DSpace statistics

> Each item and category in the repository has its own use report by default, and we occasionally generate aggregate reports for individuals, units, etc.

> Faculty can elect to check their "Digital Commons Dashboard" to see readership activity and/or select to get email reports of same.

> If asked, but people are encouraged to access on their own.

> In addition to monthly download report emails to authors, additional reports are being set up for department chairs and college deans.

> In addition to statistics noted above (the number of page views and downloads for deposited files—both for individual files that one has deposited and for the total of files one has deposited), our IR can capture other statistics that might be considered a usage report. They include the following: total number of files in IR, totals by visibility, the top file formats, and total IR users.

> Individual content submitters can elect to receive usage statistics of their submissions, which provide download counts of individual records. Administrators of communities within the IR have access to download usage reports.

> It goes to each author who has deposited into the IR, and it reports the number of downloads for the most recent month, and also a total downloads number.

Item-level download and view stats are freely available from the respective webpage. Spreadsheets and charts showing use for subsets of the collection are available upon request. Annual use reports are published in an IR impact report.

Number of downloads

Number of downloads of article citations via Web of Science

Number of times content is downloaded

Only on request, however

Page views and downloads

Plum Analytics

The usage report provides the number of downloads over the last month and the lifetime of the object.

There is a DSpace analytics page that sends out reports to community administrators but not authors. There are also author reports that inform the author of the number of downloads of a publication.

Users can publicly view simple metrics for their items, including total number of downloads, downloads this month, and downloads today.

Via monthly emails sent to users, and usage information is also displayed publicly for all items.

We create general repository usage reports for the dean of libraries. We can provide targeted reports upon request from departments or individuals as requested, but that doesn't come up much.

We offered usage reports when requested by the administration.

We provide reports on views and downloads.

Yes, authors of the items deposited in the repository receive download counts by e-mail every month.

Additional Comment N=1

At this stage, we only produce internal reports showing growth in content and use of IR. Also, those with PlumX Profile can generate their own reports.

10. **Please enter any additional comments you have on scholarly output assessment software/ resources.** N=22

Current usage reports require a lot of staff time to collect and distribute so they are offered only occasionally.

Discussions are underway regarding further development of services via our IR, including the implementation of a Google Analytics function by item so that users can get richer and more accurate download and view counts by time and geographic origin. We are also currently evaluating the possibility of integrating repository downloads to an alt-metrics widget that would be applied to our Blacklight instance.

DSpace software provides usage statistics.

Google Analytics tracks additional use and download information for our bepress Digital Commons instance.

In addition to usage statistics, citations and events related to the digital items and collections are tracked when the data is available.

In the very near future, our faculty profile system will be integrated with our digital repository, but as we are just rolling it out we have not integrated it yet. In addition, we currently only have the native DSpace statistics reports that users can see for their items in the collection. It's not an integrated 3rd party software, but it is a statistical report.

Library administrators are currently participating in a university-wide group considering performance metric tools for purchase.

The Health Sciences library on our campus is currently working with ORCID on author disambiguation.

The IR logs activity such as browsing items and downloading files. Once scholarly content grows, it will be possible to generate usage statistics and reports as input for assessment.

The next iteration of our institutional repository will include integrated scholarly output assessment software.

The university's central IT pays for the campus subscription to SciVal and the Program for Institutional Research & Assessment pays for the campus license to Academic Analytics.

There isn't any cost sharing, per se, but other units (i.e., RENCI, Renaissance Computing Institute, renci.org) pay for some software/resources and make them available to the institution.

Users can generate reports but the library does not provide reports as a service.

We are currently overhauling our IR software. It's too early to tell what functionality will be included in the new software.

We are just now getting the altmetrics donut into our press website as well as the IR.

We built our own usage statistics service that draws upon repository usage (article download) data. We have been looking at opportunities for integrating vended software/tools such as incorporating altmetric data into our repository.

We currently integrate only Google Analytics into our repository and provide dynamic reports at the article and collection level.

We don't provide any usage reports, but usage data is available to all users of the IR.

We or IR provide reports to departments, individuals, and/or some library staff on campus based on information provided by the IR vendor and/or Google Analytics. This can include download counts at the item level.

We plan to integrate scholarly assessment resources into our digital repository in the current calendar year including usage reports related to repository items and/or faculty, students, and staff represented. In consultation with campus partners, we will be evaluating many of the services listed in the survey to determine which service(s) might best provide assessment data useful to aggregate within our digital repository.

We're still developing a more dynamic method of providing scholarly output assessment for the institutional repository.

While our IR does not incorporate the software or resources described in your question, it does provide download counts for all objects. In addition, our IR creates DOIs for each record, providing a basis for interoperability.

SCHOLARLY OUTPUT ASSESSMENT TRAINING

11. Does your library offer or sponsor training sessions to scholars, researchers, staff, and/or students that relate to assessment of scholarly output? N=77

Yes	49	64%
Not yet, but we are considering developing training	18	23%
Not yet, but such training is in development	3	4%
No, and the library has no plans to provide such training	7	9%
No, but another unit in the institution does	0	—

If yes or training is in development, please briefly describe the content of classes or workshops offered by your library. N=44

A workshop has been offered through the Research Commons that covers information related to tracking output using Research in View and archiving scholarly content in the Knowledge Bank (our institutional repository). Jason Priem (ImpactStory) gave a presentation at the University Libraries on the topic of "Scholarly Communication and Alternative Metrics."

Answers should be Yes, Not yet but in development, and No but another unit.... UL is developing introductory workshops on impact factors; also offering "managing your scholarly identify." Law does not offer workshops.

APIs for Scholarly Resources: brief overview of scholarly research APIs available to the community with examples of current research. Overview of Citation Analysis: overview of citation analysis, including sources of data for citation analysis, common impact measures, and freely available software.

"Basics of Citation Metrics" offered to library staff covers Web of Knowledge platform tools (WoS, Journal Citation Reports, ESI), Scopus (altmetric) and journal comparison tool, Google Scholar, and My Citations. "Impact Measurements" webinars open to all—but attended mostly by university faculty, graduate students, and staff—covers the above, as well as an intro to non-citation based analytics. The MyResearch graduate series Module 4 covers all of the above. The library provides training to Media Relations Office on all of the above.

Citation Analysis, Citation Management, Collaboration, Communicating Research, Digital Humanities, Data Management, Enhancing Research Impact, Responsible Research, Scholarly Communications, etc.

"Determining Your Scholarly Impact" is a 1-hour class offered each semester to anyone who wants to come (primarily targets our health sciences campus). "Scholarly Impact: Traditional and Alternative Metrics" was a 1-hour workshop our Scholarly Publishing Committee put on to educate librarians and staff last year.

Explains concepts and demonstrates tools in workshops offered through network learning Initiatives.

Google Scholar, Publish or Perish, Altmetrics

Hands-on workshops. Topics include: using Scopus, cited reference searching, creating citation reports, Google Scholar Citation Profiles, ORCID profiles, Altmetrics (including social media, ImpactStory, etc.) We've also talked about possibly doing online reputation management (as it relates to increasing scholarly visibility).

Health Sciences Library conducts workshop on using SciVal, and has prepared a SciVal LibGuide.

Librarians offer classes on using tools for measuring scholarly output and understanding measures such as the h-index and altmetrics.

Library has offered in the past workshops on alternative metrics. We are developing materials to complement campus rollout of Symplectic Elements.

Metrics workshops for grad students and early-stage faculty, non-traditional scholarly communication (e.g., Twitter), workshops for administrators re: metrics for faculty assessment

Mostly tenure metrics, establishing research impact using article-level citation metrics like h-index from Web of Science, Scopus (just acquired), and Harzing's Publish/Perish, but also noting altmetrics, especially in fields where citation metrics are not a good reflection of impact.

Much of the training that we do is in the context of upper-level library instruction. Many of our liaison librarians also consult with individuals or small groups as needed. However, the librarians in our Health Sciences Library offer a systematic review service. As part of this service, they host workshops. There are three sessions, which were promoted through local listservs (for administrative assistants and research coordinators). The content of the three sessions are: basic library overview (finding articles, ILL, website navigation), bibliometrics as it pertains to grants and P & T, and a tutorial in Endnote Web for reference management software. Additionally, one of our education librarians has offered a professional development session specifically for the College of Education on this topic.

One of our liaison librarians in the health sciences has been offering workshops on metrics to faculty, graduate students, and library staff.

Scopus, Citation Analysis, Data Management, Individual Databases, Research IDs, Altmetrics, Visualization Tools

Scopus training, SciVal Experts training, Tools for Researchers

SCOPUS: A Tool for Authors, Enhancing the Visibility and Impact of Your Research, Who is Citing Your Work? You're in Good Company: Research Studios for Advanced Graduate Students in the Humanities (include some information on monitoring their own work). A variation of Enhancing the Visibility and Impact of Your Research is in development for non-medical campus.

The content of workshops reflect the unique needs of the participants. Content has been varied, highlighting one or a mix of the following: overview of bibliometrics/altmetrics, h-index and Eigenfactor, Scopus and Web of Science comparison, Google Scholar, InCites, etc.

The library has offered occasional workshops for graduate students on the significance of h-index for scholarly output assessment.

The project manager of the faculty profile system being rolled out trains faculty regularly. Also, information on other resources is part of classes that the subject liaisons regularly teach in their informational sessions to graduate students and faculty.

The University Library Scholarly Commons provides a wide breadth of workshops and events for researchers, staff, and students about research topics, including those pertaining to scholarly output.

This currently takes place on limited basis, only as requested by users. More integrated approach is planned for development in FY16 planning cycle.

Through the medical school's continuing professional development series, a workshop on research metrics is offered that discusses "different approaches to assess the quality and impact of your research on other researchers in your field." This hands-on and practical workshop will focus on the three areas of article, author, and journal assessments.

Participants will become familiar with different multi-faceted citation analysis using a variety of metrics and their implications. Content on assessment of scholarly output is also included in other workshops or instruction sessions, e.g., a session might contain information on how to find an h-index or how to find out who has cited your own work.

Traditional and alternative metrics, author disambiguation, author profiles and author identification, development of training for the use of MyNCBI tool sciENcv

Training is provided by subject specialists and scholarly communication librarian via one-on-one and small group sessions.

Training sessions are generally one-on-one with faculty, grad students, or administrators who have requested it.

Training sessions offered on an ad hoc basis and are not centrally coordinated; for example, the Health Sciences Library offers drop-in sessions on calculating the h-index.

Use of JCR, SCImago, h-index

Varies by user group

We don't offer formal training workshops, but librarians have one-on-one conversations with faculty about assessment of scholarly output.

We have a workshop on citation tracking geared toward graduate students.

We have offered a workshop to Early Career Researchers on using Open Access and freely available services to increase research exposure and impact.

We offer this in one-on-one consultations.

We offer workshops on Web of Science, Google Scholar, and Altmetrics.

We offered a class entitled: "Impact Factors & Journal Publishing." We invited journal editors on campus.

We run "Expanding Horizons" sessions to grad students and some departmental training.

We've offered a series of "increasing the visibility of your scholarship" workshops to faculty and grad students, focusing on the humanists but inviting all, for example; very successful in the last two years.

Workshop on managing your research impact

Workshops are given on citation measures with JCR and Web of Science.

Workshops on citation analysis, citation management, ORCID, Scopus and such databases as Symplectic (demo) and Mendeley, altmetrics

Workshops on how to access and use and interpret many of the above sources, especially as they are integrated into our faculty profiles system and open access deposit workflow.

Workshops: Journal Impact Factors and Citation Analysis, Keeping Current with Literature, Measuring Your Scholarly Impact, Library Tools for the Publication Cycle—humanities and social sciences and also one for the sciences—some of these are done for particular departments and other are aimed a more general audience.

Additional Comment N=1

Courses on "Article Level Metrics" and "Building Your Academic Profile" are currently offered (marketed to graduate students).

12. **What resources do your library staff use for learning about and keeping abreast of the latest trends in scholarly output assessment practices? Check all that apply.** N=75

Conferences	72	96%
Webinars or continuing education classes (external)	68	91%
Blogs	66	88%
Email distribution lists or RSS feeds	66	88%
Professional associations or scholarly societies	64	85%
Websites of other libraries	61	81%
Journals or books	59	79%
Internal education for library staff	49	65%
Other resource	9	12%

Please briefly describe the other resource(s). N=9

External workshops, speaker programs and panels, demos, conversations and special library meetings, library committees

Grey literature, twitter, vendors

Involvement with different research communities on campus and broadly

School of Information & Library Science faculty

Social media, twitter in particular

Twitter

Twitter and other forms of social media

Unconference

Vendor propaganda emails

13. **What new skills have library staff acquired in order to provide scholarly output assessment services, if any?** N=42

Altmetrics

Analysis skills for Altmetrics, Google Analytics, and Web of Science. Creating narratives based on these analyses that demonstrate qualitative impact as well (such as prestigious blogs or persons citing scholarship).

Becoming more acquainted with social media outlets and online "publishing" tools that offer measures of "buzz"/usage/views related to altmetrics

Content and teaching skills, scholarly communication skills, technology skills

Data analysis and reporting and promoting discipline specific scholarly output trends. Understanding of research metrics tools, their limits and potential application.

Developing familiarity with author disambiguation, citation metrics for individuals, departments, and schools, tracking altmetrics developments, participating in development and review of institutional-level metrics including comparisons of major software packages like SciVal & InCites.

Digital humanities and data management related skills

Discovering and evaluating available metric and altmetric tools and making relevant information available to the university research community.

Familiarity with tools such as InCites, Web of Science, and altmetrics

Formal training on impact tools, visualization tools, and study of the Becker model

Given the ad hoc nature of our current level of support, most staff rely on individuals with more knowledge and experience when assisting patrons with these services.

I'm sure individual librarians have learned new skills, but since it's done in response to questions, I'm not sure what those are. It will be different for each librarian.

In the past year, we have developed expertise in Neo4j, a graph database, with which we are looking for patterns of collaboration in our IR data.

Increasing awareness of article-level metrics

Intensive introduction course about bibliometrics offered by scientometrics professor

Just starting to learn about resources like Plum Analytics, InCites, bepress readership stats, Google Scholar Profile citation stats.

Knowledge of alternative metrics, how altmetric.com works, altmetric-it plug in, learning new resources and ways to communicate the impact

Knowledge of available tools and capabilities of tools, familiarity with the needs of users, methods of using or searching within the tools

Knowledge of new/developing tools, how to calculate h-index and other measures

Knowledge of ORCID, ImpactStory, Altmetrics, etc.

Learning about the variety of sources, pros and cons of each, caveats, and how to interpret them.

Librarians have learned to use various tools in order to demonstrate them.

Library staff have been developing and/or honing skills in utilizing tools for scholarly output assessment, and in training faculty how to use these tools for their own use.

Library staff learned to keep abreast of trends and use new tools.

None.

One librarian attended the European Summer School of Scientometrics in July 2014 and is using a train-the-trainer approach to develop programming for the rest of the staff.

One skill is having to spend time learning the new tools that are entering the market. The second skill is saying vigilant on top of new trends.

Our Publishing Outreach librarian is particularly skilled in this area; she knows this stuff. Not sure if there are any particular skills other than knowing the landscape out there.

Overview of options, experimentation with Excel and other free tools

Project management and leadership, communication with faculty and others, library publishing, product expertise, how to be forward thinking, scholarly communication focus

Scopus training

Selected examples: extracting DOIs from library databases for article-level metric analysis, creating customized reports in Google Analytics

Several staff members have received training in altmetrics.

Skills are developed as needed, but demand is currently low.

The use of metrics offered by various software programs

Understanding of Altmetrics

Understanding of different metrics; proficiency with Scopus, Web of Science, and Google Scholar

Understanding of newer measures of article impact, including h-index, Eigenfactor, altmetrics data, etc. A better understanding of how Excel can be used to manipulate citation data.

Understanding the various altmetrics measures, and understanding what our administrative units prefer for measures.

Using Endnote and Zotero to harvest citations, familiarity with h-Index

Using social network analysis tools, Excel, and other software.

We have run a number of internal seminars providing librarians with training on the principles of bibliometric assessment of research outputs as well as information on the needs and uses of such information by researchers (e.g., grant applications, tenure and promotion, etc.) Librarians were also encouraged to test research assessment tools we had on a trial period available to Pitt community.

14. **Please enter any additional comments you have on scholarly output assessment training.** N=16

A lot of our training is informal: one-on-one research consultations with faculty, open meetings, brown bag lunches.

An area for development for us

As above, there are individuals within the Libraries here who work to better educate themselves about scholarly output assessment, but there is no program across the Libraries to do so.

At present, the scholarly output assessment training discussed above also occurs on an ad hoc basis rather than in a programmatic way.

Hard to teach use of these tools across disciplines, perceptions are that much of this is only related to science/STEM fields, not humanities.

Interestingly, librarians perceive research assessment as a brand new skill and often do not understand why such service could be delivered from a library.

More to come

The librarians in the system who know a lot about scholarly assessment are mostly self-taught.

The majority is self-directed; librarians acquire skills as needed to perform their work.

This is considered to be a requisite skill that needs to be addressed.

This is what liaison librarians do to support our learning, teaching, and research mission for the library and campus… nothing new.

We are in the process of developing a training and outreach program in this topic area.

We don't promote this as a "service" like circulation or reserves or instruction sessions. So it's done as needed, when requested.

We have the potential to develop collaborative goals between our Academic Liaison Program and Scholarly Communications Task Group. We are also interested in considering research data as another element in the scholarly output landscape.

We walk a careful line between educating researchers and not stepping on any possible conflicting issues with promotion & tenure philosophies related to new scholarship measures.

Workshops for faculty were offered in Fall 2014, but were very poorly attended, so alternate approaches are currently being evaluated.

SCHOLARLY OUTPUT ASSESSMENT STAFFING

(Note: This section does **not** pertain to library staff responsible for assessment of library-based activities.)

15. Which of the following statements describes the library staffing model for scholarly output assessment services and training at your library? Check all that apply. N=67

Staffing Model	Services	Training	N
Provided by several full-time library staff	52	41	55
Provided by designated specialist(s)	26	27	31
Provided by others who work part time	5	5	5

16. Please indicate how many library staff have responsibility for scholarly output assessment activities and the total FTE these individuals represent (i.e., are they full-time or part-time). N=53

Library Staff	N	Minimum	Maximum	Mean	Median	Std Dev
Individuals	53	1.00	56	12.59	10.00	12.27
FTE	53	0.10	56	7.81	2.00	11.56

# of Individuals	Responses
1	2
2	5
3	9
4	1
5	2
6	2
7	3
8	2
10	6
>10	21

# of FTE	Responses
0.10	1
0.20	2
0.25	3
0.33	1
0.50	2
0.80	1
1.00	9
1.50	1
2.00	7
2.50	1
3.00	4
4.00	1
5.00	1
6.00	1
7.00	2
8.00	1
10.00	2
>10.00	13

17. Please list the job titles of up to three library staff who provide scholarly output assessment services. N=62

Position 1 N=62	Position 2 N=53	Position 3 N=37
Assistant Director Learning Services	Director of Learning Environments	Open Education and Online Learning Environments Librarian
Biology Librarian	Agricultural Sciences & Natural Resources Librarian	Associate Dean for Research & Scholarly Communication
Biomedical Librarian and Emerging Technologies Librarian	Education Librarian	Digital Content Specialist and Head ScholarSphere User Services

Position 1 N=62	Position 2 N=53	Position 3 N=37
Branch Heads	Individual liaison librarians	
Chemistry Librarian	Data, Network, and Translational Research Librarian	Assistant Director for Public Services
Clinical Education Librarian	Sciences Librarian	Education Librarian
Clinical librarian	Reference librarian	Reference librarian
Collection and Organizational Data (CODA) Librarian (UL)	Faculty Services Librarian (Law)	
Collection Development Librarian/Open SIUC	Natural Sciences Librarian	Health Sciences Librarian
Digital Projects Specialist	Scholarly Communication Coordinator	
Digital Repository Specialist	Digital Data Repository Specialist	
Digital Scholarship Coordinator	Scholarly Communications Assistant	Graduate Assistant in Technology and Digital Scholarship
Director, Copyright & Digital Scholarship Center	Various subject specialists	
Director of Library Operations	Head of Reference & Education, Education & Outreach	Reference Librarian, Education & Outreach Librarian
Director of the Institutional Repository and Scholarly Communication Librarian	Collection Development and Analyst Librarian	
Director of the Office of Scholarly Communications	Digital Scholarship Librarian	Subject Librarian(s)
Director, Scholarly Communications	Institutional Repository Coordinator	
Engineering Librarian	Collections & Scholarly Communications Librarian	Digital Library Software Engineer
Head of Social Sciences	Science Librarian	Scholarly Communication Librarian
Head, Digital Scholarship Center	Scholarly Communications Librarian	Science Librarian
Head, Scholarly Communication & Copyright Office	Research Data Librarian (.5 FTE)	Coordinator, Institutional Repository
Information Services Librarian		
Informationist	Subject librarian	
Liaison Librarian	Scholarly Communications Coordinator	
Liaison Librarian	Coordinator	
Liaison Librarian		
Liaison Librarian		
Liaison Librarians		
Liaison Subject Librarian	Curator	Digital Scholarship Librarian
Librarian	Data Curation Specialist	Advanced Research and Engagement
Program Manager, Scholarly Publishing, Copyright & Licensing	Director of Research for MIT Libraries	Program Manager, Scholarly Repository Services
Public Services Librarian	Institutional Repository Manager	Educational Specialist
Publishing Services Outreach Librarian	Coordinator of IR	Selectors/Liaison Librarians

Position 1 N=62	Position 2 N=53	Position 3 N=37
Reference & Instruction Librarian	Senior Reference Librarian	
Research & User Services Librarian		
Research Services Librarian	Digital Research Services Librarian	
Scholarly Communication and Special Initiatives Librarian	Scholarly Communications Resident Librarian	Social Sciences Research Services Librarian
Scholarly Communication Librarian	Digital Repository Librarian	Science and Engineering Librarian
Scholarly Communication Librarian	Head of Collection Development	
Scholarly Communication Librarian	Liaison Librarians	
Scholarly communication librarian	Liaison librarian	Library technician
Scholarly Communications and Science and Technology Librarian	Associate Professor & Head of Science and Technology Department	Scholarly Communications and Social Sciences & Humanities Librarian
Scholarly Communications Committee Chair	Assistant Director	
Scholarly Communications Librarian	Science Liaison Librarian	Health Science Liaison Librarian
Scholarly Communications Librarian	Liaison Librarian	Coordinator of Strategic Assessment
Scholarly Communications Librarian	Subject liaisons	Collections Officer
Scholarly Communications Services Manager	Humanities Librarian	Physical and Mathematical Sciences Librarian
Scholarly communications unit head	Digital scholarship specialist	Liaison/collection librarians
Scholarly Publication Librarian	All liaison librarians	Research Services Librarian (Engineering & Science)
Scholarly Publishing librarian	Senior Librarian for Evaluation and Assessment Services	Variety of reference librarian/subject librarian job titles
Science Librarian	Reference librarian	Health Science Librarian
Science Research Support Librarian	Instructional Design Librarian (medical library)	Education Services Librarian (medical library)
Social & Behavioral Sciences Librarian		
Staff of the Office of Copyright & Scholarly Communication	Subject liaison librarians	
STEM librarians	Humanities librarians	Repository/scholarly communications librarians
Strategic Initiatives Manager	Scholarly Communications Librarian	Subject liaisons (several)
Subject (reference) librarians		
Subject Librarian	Subject Librarian	Subject Librarian
Subject Librarian (Health / Natural Sciences)		
Subject/Area Librarians		
TRaCS Knowledge Management Librarian	Head of Science Library	Library Liaison, School of Pharmacy
Visiting Project Manager, Researcher Information Systems	Life Sciences Data Services Librarian	Instructional Services Librarian

18. Please indicate whether your library has hired new staff or reallocated library staff or is planning to do so to provide scholarly output assessment activities. Please make one selection per row. N=64

Options	Library has done	Library plans to	Library has no plans to	N
Hire new staff	6	10	43	59
Reallocate staff	14	6	41	61

19. Please enter any additional comments you have on scholarly output assessment staffing. N=37

Above the FTE doesn't mean they spend all of their time working on scholarly output, but that they are full time individuals at the library.

All liaison librarians play an assessment role. It's difficult to gauge the amount, so we added their effort up to 1 FTE.

All subject liaisons are expected to have some knowledge of scholarly output assessment and be able to speak to their faculty about how to use them. Scholarly Communications Librarian is working to put together base-level service expectations and training to assist subject liaisons.

All subject librarians are expected to be knowledgeable and be able to advise and assist researchers and answer questions related to scholarly output activities. Only a handful are comfortable teaching workshops/classes on the tools and topics. (All 14 librarians with subject responsibilities are FT).

As mentioned earlier, those librarians who have expertise have mostly taught themselves. Most colleagues know who they are and can go to them for assistance if needed. We have no "dedicated" staff who are charged with having this expertise.

Expertise is very distributed across the library system and is part of the expectation for library faculty liaisons and library leadership.

Here, this is considered part of the skill set for liaison librarians. It's something done in response to a question, or brought up in a classroom session discussion.

In addition to leveraging the liaison model for liaison librarians to assist faculty in scholarly output assessment and existing Exhibits Coordinator and Digital Scholarship Librarian positions for their collaborations with liaisons, the Libraries also hired a Scholarly Communications Librarian and is in the process of hiring a Data Librarian who will also collaborate with liaisons to provide services across all areas on campus.

In our answer above to which we answered (17,15) we are referring to the number of subject & liaison librarians on our staff. All of these librarians spend only a small portion of their time on such activities.

In our institution, the responsibilities for this area are very diffuse, each subject specialist is the initial point of contact because they know the scholarship culture of their departments. They consult with a few people on staff that have developed special expertise in metrics based on previous experience and their normal ongoing research interests. At this point, no one is specifically assigned as a general point person, though as chair of the scholarly communications committee, I function informally in that role, though it is not a specific dedicated job responsibility. Hence the questions you ask above are difficult to answer. I suspect we will move toward dedicating more staff time to this area, but it may be a while before we formally create specific staff positions to address this area. This is complicated by the fact that other institutional support and assessment offices like Institutional Analysis and Sponsored Programs see this as their function and tend to act independently of the library.

In theory, all of our librarians with public service responsibilities might have some experience with scholarly output assessment activities. However, for the purpose of this survey, I have indicated the number of librarians most likely to be involved with these activities on a routine basis: subject-specialist librarians, librarians serving our professional schools (medicine and law), and librarians serving graduate programs outside the main campus.

It is not so much the reallocation or addition of staff as the realignment of existing subject specialist roles to support bibliometric analysis and publication analytics. This survey does not sufficiently account for that possibility.

Law notes that services are provided by designated specialist. UL notes training and services. At Law, faculty services librarian may occasionally request support from other librarians. At UL, various liaisons provide these services, or they are provided at the reference desk, thus difficult to estimate FTE/staff time overall with exception of CODA librarian, who does this work.

Liaison librarians provide many of these services to their constituents as part of their professional assignment. We are looking to incorporate skills and expertise into position descriptions for new hires, particularly in STEM fields.

Liaison librarians provide support and training for scholarly output assessment upon request and through targeted workshops for faculty.

No one has specific responsibility for this, no one is specifically designated to deal with these issues, but anyone who works with faculty will provide services related to SOA.

No library employee is tasked solely with work related to scholarly output assessment. The work is done by full-time librarians but it is only part of any individual's workload.

Scholarly Communications committee that offers programming and services about scholarly output assessment. The committee is made up of librarians from various libraries on campus.

Scholarly output assessment is considered to be an important component of the liaison role and broadening this skill set needs to be carried out in a coordinated fashion. An assessment protocol needs to be established to review the current products.

Scholarly output assessment is not an official, explicit part of any position description, however, the people who provide these services do so because they believe it falls within their responsibility.

Scholarly output assessment work with library users is part of the typical subject librarian portfolio of outreach and reference activities.

Staff has not been hired specifically for this, but a combination of new and existing staff have this as part of their portfolio.

Staffing model varies a lot in different libraries. On medical campus two librarians have responsibility; on non-medical campus all subject/departmental librarians would include scholarly output assessment services and training in their responsibilities and amount of attention varies widely by personnel and by discipline.

Subject/area librarians and other full-time staff in Research Services and Collections, Technical Services, and Scholarly Communications provide support related to scholarly output assessment on an ad hoc basis. There are no dedicated staff members whose responsibilities are only related to this area.

The University Library is currently building an Office of Research to support the research activities of faculty and students. This will include increased attention on scholarly analytics and collaboration with other units on campus.

The librarians who sometimes provide scholarly output assessment do so only very rarely and on a casual basis. There is not developed program for this.

The library has shifted from a centralized support for scholarly communication services (1 FTE faculty librarians plus 1 FTE staff) to distributed support for scholarly communication services. This distributed support is coordinated by a Scholarly Communication Committee, composed of representative members from Public Services departments (Humanities, Social Science, Science, Information Commons), Special Collections, Technical Services, and the IR manager. Each of the committee's 10 members is responsible for being a consultant on scholarly communication issues within her/his library department. Though the committee has 10 members, the total FTE investment is likely 1–2, since each individual dedicates a portion of time to scholarly communication endeavors.

There is not one designated person who provides this kind of training and services. Instead, different librarians spend part of their time on providing the training and services.

These services fall under other new roles that were created, but the new roles were not focused on scholarly output assessment. These roles were created through reallocation.

This work has been incorporated into the existing subject specialist librarian positions.

We are creating a unit called E-Resources and Digital Services that will be more responsible for tracking a lot of these metrics. All librarians have some skill in these areas and have multiple contacts within the library from Information Technology staff who do web analytics to system-wide contacts outside the library of institutional repository staff who can provide analysis.

We currently are accepting applications for a new position of Scholarly Assessment Librarian.

We have 3 full-time librarians who work on a research guide covering scholarly output assessments, but this is a very small part of their overall responsibilities.

We have a project manager for training and implementing the campus faculty profile system, which includes training on the assessment tools provided therein. I am not sure how this breaks down into FTE percentages.

We have no staff whose primary job focus is scholarly output assessment, as any services or training are provided on an ad hoc basis by some subject librarians. The Institutional Repository does have more focused staff support.

We have staff involved in different areas of scholarly output assessment. Library administrators are involved at the planning and university-wide level, liaison librarians provide services and training to faculty and students, and a Metadata Management Librarian manages our institutional repository.

When we hire a Scholarly Communications Librarian, we expect this to be part of that position.

PARTNERSHIPS WITH THE PARENT INSTITUTION

20. **Has your library partnered with specific units of your parent institution on scholarly output assessment activities?** N=75

Yes	40	53%
Not yet, but planning is in process	20	27%
No, the library tried to initiate a partnership but was unsuccessful	2	3%
No, the library has not done this	13	17%

If yes, please identify the unit(s) and briefly describe the scholarly output assessment activities the library has collaborated on. N=39

Dean's offices when doing program evaluation and especially the Office of Institutional Analysis

Division of IT, Office of the Vice President for Research, Office of Academic Planning & Assessment

Graduate School, and individual departments and programs

In the past the Libraries have partnered with Faculty Affairs and the president's office on these activities.

Individual academic departments that have expressed an interest in scholarly assessment for their faculty

Librarians have been meeting with Office of Research and Office of Institutional Research staff to review scholarly output assessment software options.

Library has invited deans for research from across the institution to help assess research evaluation tools considered for purchase. Library is working closely with central IT to implement ORCID and faculty info system.

Office of Research

Office of Research, grad school, provost

Office of Research, Sponsored Programs, VP Research, colleges and schools of Arts & Sciences, Engineering and Computer Science, Graduate School

Office of Sponsored Research: creation of patent profiles for individual researchers, as well as patent search and patent citation training for students working at OSR. Media Relations Office: collaborated on the training of MRO staff. Graduate and Postdoctoral Studies as well as Teaching and Learning in the development of graduate student research training (MyResearch).

Office of the Provost: provide guidance and reports re methodologies used by college and university ranking groups. University's Institute of Clinical and Translational Sciences (ICTS), members of the ICTS Tracking and Evaluation Team. The Office of the Vice Chancellor for Research (OVCR): provide guidance and reports for various academic/research groups. Dean School of Engineering: systematic delivery of some reports to department chairs.

Office of the Vice President for Research, Sponsored Program Services

Provost's office is the lead for faculty profile system, and library supports major components of this. Office of Institutional Research, Office of News & Communication, and some deans and department offices collaborate with the library to use these services.

Provost's office: assistance with search criteria and training for faculty using Elements. Individual liaison librarians work with their colleges and departments: primarily in business, engineering, and the sciences.

REACHNC: includes scholarly output assessment activities in the way of visualization tools. This is a locally developed product for the entire university system (17 units).

Research Administration

School of Medicine Office of Research [medical campus]

Several years ago collaborated campus-wide on the selection of InCites. Worked with provost, Research Office, etc. All administrators have turned over, and we have no current subscription for InCites or comparable product.

Texas Digital Libraries

The Libraries have partnered in the implementation of Digital Measures. This was originally with staff in the provost's office, who are now part of the Office of Institutional Research due to a reorganization.

The Libraries were core partners for the VIVO grant and are partners for various trainings and activities with Research Computing, the Division of Sponsored Programs, the Graduate Editorial Office, and Office of Undergraduate Research for training and assessment related activities including ORCIDs and more.

The library is partnering with the Office of Research Services and the Office of Planning and Institutional Research.

The University Library has primarily collaborated with other units such as the Office of the Vice Chancellor for Research to implement researcher information systems and the Graduate College to facilitate electronic theses and dissertations. The first goal of these projects is to collect and disseminate Illinois research, but over time we may see greater library collaboration with other campus units for analytics and assessment.

The University's Grant Assist Program is offered via The Office of the Vice-President (Research). This office currently provides publicity, scheduling, registration, and assessment of bibliometrics/research impact workshops provided by librarians. In addition, some faculties and/or department contacts connect with their library liaisons to coordinate training.

The Vice President for Research helped fund our digital repository. One librarian works with the Associate Provost for Faculty Office to present faculty development workshops, which include scholarly output assessment tools.

There is currently a university working group comprised of partners from our Research Office, School of Graduate and Postdoctoral Studies, library, and various faculties. We've also worked directly with faculties or departments, with individual faculty, communications staff, and associate deans of research to learn about their needs and either provide information or instructions/training for them.

University's Academic Personnel Office provides OPUS system of record for academic appointees. The library has been working on implementing ORCID at a campus-wide level and integrating with Symplectic.

University Libraries partnered with the Office of Distance Education and eLearning to present a joint workshop through the Research Commons covering Research in View and the Knowledge Bank (our institutional repository): "Undisciplined Research: Planning and Publishing Across Disciplinary Boundaries." Looking for collaborators in other disciplines at the university? Want to hear about options for sharing your work digitally or starting a new open access journal? Join ODEE, the Libraries' Publishing Program, and the Knowledge Bank to learn more about valuable tools for finding collaborators and making your work more accessible to researchers in other disciplines.

University system has purchased SciVal Experts/PURE for all system schools. We are currently working with Elsevier to fix bugs in one instance and then may be rolling that out to campus.

Vice-President, Research Faculty of Nursing, Faculty of Medicine, provost's office

VP executive, VP research

We collaborate with University Information Technology on the implementation of Symplectic Elements and the connection to the institutional repository.

We have more than one answer to this question. Law answered no, but UL answers both yes and no. At UL, life sciences librarian partnered with NUIT Research Computing, FASIS/HR and others to explore ORCID options. Head of Electronic Resources & Collection Analysis Department at UL sits on the Scholars/FASIS team.

We work closely with the Office of Research Services. Currently we're engaged with them on implementing a new phase of our Tools for Research @ Queen's (TRAQ) system for managing the research cycle that includes scholarly output assessment.

We work with the medical school quite a bit largely due to the NIH mandate.

We worked with the Office of Knowledge Enterprise Development on their evaluation and eventual implementation of SciVal.

We've been working with the University Data Warehouse and Business Intelligence to identify and evaluate potential software for use in a comprehensive faculty information system.

We've collaborated with the California Digital Library to promote and support the UC e-Scholarship repository on this campus.

Planning is in process N=7

Collaboration with Office of Faculty Affairs is in development. This office manages the campus instance of VIVO.

Institutional Research

Institutional Research Office: using data on publications in custom services developed on campus for tracking outputs.

Library will collaborate with academic departments and Institutional Research on the use of Digital Measures.

Office of Research

The Libraries are collaborating with the Division of Research (VPR) on an experimental basis on bibliometrics, e.g., quantifying the monograph output of faculty.

Work with different campus units on an ORCID implementation.

Tried to initiate a partnership N=2

Research & Innovation Services

University (provost's office) contracted for Academic Analytics and Digital Measures. The Libraries wasn't consulted but after the contracts we've worked periodically with the Digital Measures team in the provost office.

21. Please enter any additional comments you have on scholarly output assessment partnerships. N=17

Carolina Health Informatics Program has recently relocated its offices to the Health Sciences Library and provides a potential partnership in this area. ODUM institute for social behavior science located in Davis Library also provides collaborative services.

Have consulted with the Office of Research staff about potential source of faculty publication data useful for populating SciVal and VIVO (e.g., Scopus, Pubmed, Web of Science, etc.)

Instruction with SOA tools is often integrated into workshops/sessions with broader coverage. One librarian has been invited to give special presentations to university committees (appointed by the provost's office) to educate them on research evaluation software and the differences between different tools.

Office of Institutional Research does an evaluation of a scholar's impact as part of tenure review process, but said office does not appear to provide services directly to faculty members.

Partnership with the main campus Office of Research is likely.

Plan to explore the potential for collaboration with the university's research services department.

The library only played a facilitating role in introducing assessment services and resources, beyond the library holdings, to various campus units.

The provost's office subscribes to Digital Measures. We are making efforts at working with them, so that we can ingest citation information (and maybe full-text) into our institutional repository.

There has also been work done independently of the library on assessing academic programs through scholarly output assessment measurements through our Academic Planning and Institutional Research Office.

This is a growth area for library services. It's important to be able to show impact of our university's research for a variety of reasons, and library staff are well placed to understand how best to do this.

This is a new area and there needs to be more communication and cooperation among the various entities interested in assessing the scholarship of our institution. The other problem is that direct quantitative assessment (the numbers game) can create furor and significant push back where the validity of the metrics used, the underlying data, and interpretation of results is questioned. Librarians tend to come from a perspective of transparency and openness, but that is not always the perspective of everyone else. Understandably, this is a sensitive area and perhaps not enough care has been taken to make sure scholars and departments are assured that they will not be nor be judged by a single "magic" number.

We are in the planning stages of partnering with the provost on scholarly output assessment.

We have had very preliminary conversations about standardizing ORCIDs across campus with the associate provost for research.

We have no formal arrangements, but the library is part of the conversation at all different levels, e.g., serve as consultant on specific databases, products.

We would like to work more closely with the graduate school as well as vendors, e.g., ProQuest dissertations dashboard.

We're seriously considering building the software for a faculty information system in-house rather than purchasing from a vendor.

Working with partners is key to understanding all of the different parts of the issue and reaching all of the different relevant groups. For us, our strategic plan and the focus on research outcomes is a driving force.

MARKETING AND PUBLICITY

22. **What methods does your library use to promote scholarly output assessment activities and services? Check all that apply.** N=73

Word of mouth	54	74%
LibGuides	48	66%
Library website	44	60%
Blog posts	21	29%
Social media messages	20	27%
Flyers	15	21%
Brochures	12	16%
Other method	34	47%

Please briefly describe the other method(s). N=34

Campus activity/course guides

Campus Daily Digest

Campus media

Departmental meetings

Departmental meetings and emails

Direct email to the targeted users

Emails to faculty

Electronic display boards

Email (3 responses)

Email invitations sent directly to faculty members via central campus communications channels. Some targeted communication with deans/associate deans on metrics relevant to their disciplines, provided upon request.

Email lists to faculty and grad students

Email notifications sent out by university public affairs to all university community members, bookmarks given out at orientation

Email to faculty and newsletters

Email to faculty listservs

Emails to department liaisons, announcements at faculty events, blog advertising is new; only started last year

Eventually we intend to use webguides and departmental liaisons.

For campus awards, people are referred to librarians for citation analysis reports that are then submitted as part of the campus award application packet.

Individual email communication, departmental meetings with faculty

Liaison librarians, integration with other systems and processes on campus, attending academic department meetings, presentations in courses and workshops, integration of library staff with research labs

Library-held wine and cheese event for new faculty, posters, open week events, brown bag lunches at departments, and presentations to user groups (usually as a part of long-standing series)

Local listservs

Meetings between key faculty members from departments who have responsibility for these activities and the appropriate library liaisons

Mostly through direct contact from those interested; we're not doing a lot of advertising.

Once we get the altmetrics donut up on the publishing/press website we will certainly be promoting it via social media, brochures, and the library websites.

Regular publication reports include notes about new tools/features available for scholarly assessment.

Via liaison librarians and the library newsletter

We do not yet have a program to promote. Services are provided on-demand.

We do not yet promote the scholarly output assessment activities and services; we fold these activities and services into our overall scholarly communication program.

We have depended more on liaison contacts within their departments to proactively become aware of and take action on any of these assessment needs rather than formal printed or electronic materials. However, we do have a concise and I think excellent scholarly publishing web site.

We speak to faculty in meetings and for their workshops as requested or arranged.

Workshops

Workshops on metrics

SCHOLARLY OUTPUT ASSESSMENT ADVICE

23. **What advice can you offer to your peers on providing scholarly output assessment activities or establishing a scholarly output assessment program?** N=43

Although we do not have a designated scholarly output assessment program, we are able to provide these services via one-on-one consultations, workshops, targeted professional development classes, and upper-level course-related instruction.

As we develop output assessment services, we find it beneficial and insightful to think outside of the article as scholarship and outside of the h-index as impact measurement. We encourage our colleagues to gain insight in this growing area as well.

Become informed about your campus assessment tools and become involved in those efforts, as it serves the overall institution more effectively than library-only lead efforts.

Build capacity and expertise so that faculty members can create and manage their own profiles themselves. Recognize and tolerate that this area is still in flux. Build awareness, recognizing that this area has not yet gained traction and that traditional methods still prevail.

Construct outreach and training that is in line with disciplinary contexts. Align outreach materials with institutional goals.

Create resources that people within the library can use to educate themselves when they are asked to provide analytics. Provide key contacts with expert knowledge of specific sets of analytical tools. Have staff be familiar with the kinds of tools available, but don't expect them to know how to use them unless they have an ongoing need to exercise their skills.

Current ad hoc model is not effective due to lack of "ownership." Recommend a coordinator responsible for marketing these services and staff training.

Ensure that you have capacity to provide services (from my experiences in Australia, I have seen the demand for such services increase tremendously over short periods of time). Ensure that you are working with reliable data sources (data is cleaned and you capture as much of the outputs as possible). Be honest about the limitations of the bibliometric tools and techniques; always make caveats explicit.

Establish baseline service expectations for both subject liaisons and front-line staff. Create informational pages and training to help get all staff up to speed.

Existing roles and skills of librarians can transfer into scholarly output assessment activities with training and education.

Faculty advocates have a stronger voice in describing the value of these services than library employees.

Focus on established data that faculty are familiar with rather than new social media metrics (almetrics) out there.

Get campus-wide input on the definition of the problem and selection of the tool.

Hire someone with expertise in this area.

Identify user needs. Provide time for staff to learn to do this. Get faculty input to plan programs; we need to understand their needs. Lesson learned: We think that "we" know scholarly communication and how output assessment will benefit faculty. But the big reveal was learning how competitive forces underlie faculty decisions on everything related to scholarly output. They think much differently than librarians.

Integrate this work into existing relationships with faculty to support their work across the research life cycle.

It is challenging and time consuming to stay abreast of the tools and methods used to assess scholarly output. We find that having a core group of librarians acquiring more in-depth knowledge in the area enables others to refer more advanced questions to assist our user population.

It is critical to have the support of the high administration; most of these issues are related to institutional repository and open access. We succeeded in presenting scholarly communication as part of a large "research life cycle" issue/project.

It is helpful to have a dedicated position or at least one faculty member who keeps abreast of emerging products and resources and then provides staff development for other faculty and staff.

It's important to get faculty buy-in by making the workflow for assessing and tracking scholarly output as easy and pain-free as possible.

It's very important to understand campus culture and specific researcher or administrative needs in order to have productive conversations.

Liaison model provides expert consultative services for unique concerns for each field as augmented by functional experts support.

Make it extremely easy for the scholar. Any additional effort, no matter how slight, will be met with resistance. For this reason, one must do just about all the work on behalf of the researcher. That means ultimately redeploying library staff.

Need to get other departments on campus involved in order to be successful.

None at this time.

Our institutional repository collection administrators really appreciate the regular email updates with usage statistics on their collections.

Our librarians do not recommend Google Scholar. To researchers who use Google Scholar, our librarians recommend other options such as Journal Citation Reports, Scopus, and Web of Science. While our librarians can provide reports and guide researchers in scholarly output assessment, it is easier to let researchers review citations of their works and correct inaccuracies. For example, it is not rare for a researcher to have multiple researcher profiles due to name changes. Researchers should be responsible to reconcile their multiple researcher profiles and citations. We need to remember that disciplinary differences in publishing cycles affect scholarly output, and that scholarly output of

one discipline is not quite comparable with that of another. Even within the same discipline, there is a difference in publishing cycles between theory and applied articles. It remains controversial to use summative measures like scholarly output assessments in terms of managing departments and their budgets.

Our new workshop series has been very successful, in part because a faculty member approached us with the idea, and co-presented with us. He is a well-respected faculty member and his presence drew more participants to our workshop. We now integrate portions of that workshop into other presentations to grad students (in particular) but also faculty groups.

Partnerships are important. Take a needs-based approach.

Providing such services helps build faculty-library liaison relationships. Faculty are very pleased when we are able to help them prepare for promotion and tenure reviews.

Start with one area of expertise and expand based on gaps or areas of need. Another recommendation is to identify champions such as faculty members or administrative assistants who support the library's efforts in this area. Ask the champions for feedback when piloting new ideas or reports. When a report is requested, provide the report sooner than expected and include other information to supplement the report. Be willing to test and become familiar with new software. Be willing to review the literature on the topic. Attend non-library conferences such as the American Evaluation Association or Science of Team Science.

Stay on track and be persistent.

Tailor your programs to address actual researcher scenarios. Funding applications, dossiers for renewal and tenure, annual reports and promotion. Anticipate and address concerns and misconceptions.

The tools have limitations. Be mindful and explicit about this as you introduce, discuss, and utilize them. Publishing cultures differ by discipline, and this needs to be acknowledged and understood when taking on this work. To provide a full picture of an individual's and/or institution's scholarly output assessment, a broad and diverse range of scholarly impact measures needs to be defined.

The tools to do this can continue to grow. Don't plan on learning about just a few select tools because the faculty are going to be stumbling upon other tools.

This area is growing so we should do it; seems to be a core role for liaison librarians. Library as publisher (formal or informal) also requires that we do more of this type of work. We need to be proactive.

Try to understand the needs and motivations of the researchers, and tailor the program (or at least the messaging around it) directly to that. Academic departments, news & communications staff, and subject liaison librarians are key partners, as they are already working closely with the researchers in many related areas, and have established relationships.

Understand the norms of the discipline and the expectations for faculty and graduate students in each department.

Understand the strengths, weaknesses, and appropriate use of various platforms and measures, and how to communicate this to users. Write scholarly output assessment activities into job descriptions to stress that scholarly output assessment activities are increasingly a part of many librarians' work. If output assessment is used by admin as a contentious tool in faculty performance reviews, it's important for the library to maintain neutrality and not be perceived as taking sides.

We are eager to learn from other institutions.

We are not very far along with this, but we have found that it is important to offer multiple opportunities for faculty to learn more about it.

We've got to partner with others. Our roles and our libraries are changing dramatically, and we have many options for the future. We can't and won't succeed by pursuing all possible directions. We need to make sure this is an area where we can have impact, have the proverbial seat at the table. We can take on every new role proposed and be successful. We need to be very strategic. That said, I do think this is an area that we should aggressively pursue. As a counter example, I am less optimistic that scholars will want and accept help from librarians for data management, except at the lowest level of doing the grunt work. Carefully document every metric and report you do. It can cause a firestorm. Report all assessment data in its full context, what you searched, how you searched, limitations, what the metric is. Know what you are doing or get out of the way. Higher-level metrics for departments, schools, and institutions can be a huge time sink. Author disambiguation and tracking work histories is a huge task, esp. if you want the metric to include all scholarship of your faculty from their first job. Again we need to partner and train others. Our engineering school has a person devoted full-time to tracking metrics. We cannot possibly do citation metrics for the entire university and keep it up to date. If we are not careful, we will spend our entire year sitting in front of a computer and retrieving citation reports.

With workshops it really helps to have someone that is a tenure-track faculty, someone who knows and understands what faculty have to provide for their department annual reports and/or their promotion & tenure portfolios. We have had a LOT more visibility with our efforts since partnering with the provost's office staff who handle faculty development programs and also the VP for Research office. One of the struggles we have had in recent years is that there are two different areas of need; one is the tenure-track faculty promotion/tenure needs, and the other is university administrators who are compiling faculty comparison reports for accreditation or cross-institutional comparisons of faculty scholarship and grant activities. The tools the university administrators tend to need something like University Science Indicators (which has changed name now), Academic Analytics, or Plum Analytics. Faculty have more needs along the lines of finding scholarly impact for disciplines that are less well covered by Scopus & Web of Science, particularly in the humanities. We have needed to address each audience very differently in these discussions. I strongly recommend forging relationships with university committees involved in reviewing faculty promotion & tenure files … educating them to what is "currently" available and ensuring they are involved in campus discussions about new trends in these areas. Self-promotion, online visibility, and online involvement can impact altmetrics and readership statistics and likely citation rates. It's important to explain how using different tools (repositories, social media, etc.) can affect the visibility and reach of research outputs. Not everyone likes social media, but it is important to be aware of it and to be competent enough with these tools to be able to monitor what's being said and done with your research. It should not be assumed that only the "sciences" are interested in altmetrics. We had more attendees from the social sciences and humanities at our workshop.

SCHOLARLY OUTPUT ASSESSMENT TRENDS

24. **What future trends related to scholarly output assessment do you think pose implications for research libraries?** N=59

Administration could bypass the library by training their own people to pull the numbers from places like Web of Science, Scopus, Google Scholar, SciVal, etc.

Adoption and use of alternative metrics for scholarly output assessment

Altmetrics and unique identifiers for researchers, e.g., ORCID ID

Altmetrics for sure. But as there are more players (used to be the only citation database was Web of Science) it gets harder and harder to choose the source data, no less the metrics used. The biggest problem yet to be solved is combining results from different citation databases. This is because one not only needs to deduplicate the cited references (the faculty member's papers) but also the citing references. No good way to do the second part. Scholarly output assessment is here to stay, it is a natural area for librarians since most of the assessment is based on citations/mentions/downloads of published material, whether formal or informal. We know scholarly publishing.

Altmetrics that focus on non-scholarly attention to scholarly output will require libraries to turn their attention to things like traditional and social media. Non-traditional scholarly output, such as data sets and code, will require new tools to track citations and impact. Librarians will need to better understand the research process in order to help researchers measure the impact of these outputs.

Arts & Humanities: Even though we think that they will benefit from Altmetrics, they want to use conventional metrics for assessment (e.g., H-index) because that's the only way they can stand on a level playing field with scientists. The H-Index must be used for all faculty disciplines even though some disciplines may see problems with it. Librarians focus on the problems of traditional metrics like H-index and JCR. But this does not help administrators use metrics better; it only makes them annoyed (at us).

As North American universities adopt research information management and research assessment software, libraries will be more involved in explaining what it means to faculty, and will be positioned to help faculty present their scholarly outputs in the best light.

As scholarly output increasingly moves toward non-traditional platforms (e.g., blogs, social media), what are the implications for collecting and preserving the scholarly record? What types of scholarly output will be prioritized among research libraries? How might current methods and tools for assessing scholarly output reshape the scholarly record that will be available through research libraries in the future?

Author disambiguation (ORCID, Researcher ID, etc.) and related metadata are only as useful as the data source you are harvesting from is accurate, detailed, and accessible. Financial limitations and inaccurate data will continue to challenge forward progress in this area unless libraries and publishers work together to improve the situation.

Cost of the tools, difficulty aggregating the data

Currently, popular service in the sciences but will become increasingly important in the humanities. Campus administration's increased interest in scholarly output assessment is something libraries need to be aware of and respond to.

Data (and other digital scholarship "objects") are a big issue. Not only the preservation of data but finding ways to assess usage beyond citation metrics. There are groups examining this. Data citation is one method, but has yet to become standard practice. This is likely to be messy for a while yet. In the last few years, we have suddenly started seeing problems with researchers not understanding the difference between a "journal" and a series of publications posted on a website. Electronic journals have caused confusion with what is a volume and issue number and why is it needed ... along with being able to determine the "reputation" of a journal before submitting articles for publication. There is a need to spend time educating researchers about predatory publishing and vanity presses. One of our librarians reached out to a society publisher whose name was being "reused" by a predatory venue and it lead to the publisher producing a three-part mini-series on the topic in their society newsletter.

Data sharing and digital scholarship/humanities result in scholarly output other than journal articles. Datasets are published through repositories with digital object identifiers (DOIs) for ease of citation. Data citations should be counted in scholarly output assessment, and new types of research output from digital scholarship/humanities projects should be considered in addition to other forms of scholarly output.

Decrease in institutional budgets. Increase in cost of tools. Increase in automated harvesting of information. Increase in competition for resources and prestige. Increase in institutional silos.

Develop new tools & data sources for non-journal materials. Services and workshops are focused on promotion and tenure efforts.

Develop support to academics editing a peer review journal. Continue developing a local assessment team on the bibliometric impact of university research. Work on a unique researcher ID (e.g., ORCID type) or signature.

Different groups of scholars (e.g., digital humanists, open access advocates) decry creeping neoliberalism in academia and advocate for thinking about P&T decisions in new ways. Research libraries need to be cognizant of how SOA feeds into these other issues (and how these issues feed into SOA).

Everyone at the university is much more interested in measuring scholarly output, both for individual scholars and for the overall ranking of the university, and libraries will be recognized as being expert about metrics, citation analysis, etc. As interest grows, library faculty and staff will take on, and want to take on, new roles in this area. Since institutional repositories, open access mandates, and library publishing are implicated, all areas in which we are working, scholarly output assessment will be part of our work. We will collaborate more with publishers, we will need more resources in terms of staffing and sources, and we will recruit for and reassign to new positions.

Expanding the portfolio of liaisons to include these new services. We need to educate subject librarians, who have the most direct contact with students and faculty within the institution, about scholarly output assessment and associated tools.

Explosion of tools on market that are challenging to keep up with and support. These also have budget implications, i.e., library cannot purchase all. Rather, promote resources library has available and free tools. Another trend is use of these tools across disciplines, including to those not familiar with concepts, or where they are perceived not to be useful/accurate.

From a faculty services perspective, the evolving role of output assessment in tenure and promotion will mean that librarians acquire more knowledge and skills in bibliometrics and scientometrics. From an information literacy perspective, the shift from pre- to post-publication review and assessment will change how librarians teach students to assess sources.

Funding for expensive platforms such as Digital Measures. Proliferation of free services that do different things.

I think major library vendors and publishers will begin to offer this service as a package with other services.

I think the increasing importance of alternative metrics will continue to raise implications. For example, many tools that measure alternative metrics rely on information from the author in order to be accurate, which means that it would be difficult, if not impossible, to have a comprehensive tool assessing scholarly output that is implemented without active author involvement.

I think there are more opportunities for libraries in this area because this is using databases (Scopus, WOS) and journal information (which feeds Google Scholar) to connect with faculty profile tools that have many purposes from running metrics at individual, department, and campus levels in additional to many other purposes. If libraries are not involved in these implementations on their campus, they are losing out on an important opportunity to remain relevant to their users and to build further collaborations.

Increase in the emphasis that faculty members and researchers demonstrate success in collaborations as well as by the impact of their research means that the tools and the skills to do this are becoming increasingly important. This

highlights the role for Information Technology in the development of self-help software and tools, and the challenge for research library liaisons to match the appropriate tool with the specific needs of the discipline.

Increased significance of altmetrics. Increased need for researchers to demonstrate qualitative impact to multiple audiences within the university and industry. New publications methods and increasing importance of non-traditional scholarly output. Increasing system and process integration. Increased importance of research data in assessment.

Increased demand and focus; open access movement and altmetrics taking greater prominence; capturing 'non-traditional' data about scholarly output (e.g., music performances); changes in promotion and tenure processes to reflect different scholarly dissemination environment.

Increased level of specialization within disciplines suggests necessity of training librarians of various disciplines to best communicate with a diverse faculty. Need for careful navigation of the role of libraries between that of supporting faculty and that of assisting administration in evaluating faculty.

Increasing use of article-level metrics and how those tie into tenure and promotion discussions.

Increasing use of standards like ORCID improve the quality of scholarly data and promise greater interoperability. In addition, we anticipate more campus conversations about Altmetrics.

Libraries need to be out in front and provide these services and/or partner with other departments on campus.

Making the connection between immediate needs of scholars/researchers to demonstrate the importance/value/impact of their work (a private "good"), with "openness" (a public good), seems to work very well here.

Many research libraries need to hire Scholarly Communication Librarians who can help lead the development of robust services in this area.

Many tools and measures, federal research requirements, changes possible in tenure processes

More and more funding agencies, publishers, and professional associations are using ORCID. This gives librarians an opportunity to promote ORCID.

More system integration across our campuses is needed and widespread use of standard identifiers for researchers and their outputs.

New methods for assessing and analyzing impact

Open Access; San Francisco Declaration on Research Assessment; Radical Collaboration and evaluation of collaborative activities, practices, and impacts; Digital Scholarship trends broadly including Digital Humanities; assessment and impact tracking with new programs and requirements from funding agencies and for legislative support with public institutions, and with greater emphasis on accountability

Reallocate costs for new position in this area of expertise or stop offering services of this kind.

Scholarly assessment is a niche area that represents a transformative service model for libraries. Librarians possess skill sets that are well suited for scholarly assessment activities. Librarians are familiar with bibliographic databases and have an understanding of how the data can be used for grant reporting, tenure/promotion, benchmarking for performance, to name a few. We are also familiar with the academic and research practices including funding mechanisms. Services and expertise on scholarly output assessment may help libraries to move beyond traditional publishing support to support of other sorts of output, such as data, code, informal dissemination, etc.

Scholarly output assessment tools are not advanced enough yet for the trend of team science and team-level assessment, as opposed to traditional individual scholarly assessment.

Stronger relationship between output assessment and the funding, tenure, and promotion of faculty. The integrity of data will come into question, especially when it comes to use (e.g., identifying "real" vs. robot web visits). Do the metrics actually measure what we hope they do?

The area of altmetrics poses new challenges in research output evaluation as there is still little research to the meaning of these metrics. It also provides exciting opportunities to capture impact of new forms of scholarly communication. Libraries should keep a keen eye on the developments in this area.

The big publishing conglomerates are all trying to corner the market in this space. Libraries will need to be careful not to get stuck in unhealthy relationships again, with closed standards, closed systems, and proprietary software and data. It will be important to promote openness and competition, and for universities to have control over their own data.

The development of Altmetrics is something to watch, and will likely become more important and relevant in the next five years.

The incomplete, but very interesting and easy, results provided by services like ResearchGate and Google Scholar Profile are already influencing people to accept the quick, free, and incomplete data versus data from the commercial sector like SciVal, InCites, etc.

The integration of more traditional scholarly output assessments (citation impact factor, h-index) with new methods of assessment and with new partners on campus (institutional research, office of research)

The limitations of the h-index in the shifting scholarly communications landscape will most likely demand new skills and training for library professionals to implement assessment for emerging forms of scholarship and impact.

The tracking of altmetrics will become much more prevalent.

There are so many new avenues of scholarly assessment that appear almost daily. At this point I think that it is too early to understand the value of many of them.

There is a high cost to scholarly output assessment products such as ImpactStory, Plum Analytics, etc. Many universities have Web of Science or Scopus but most campuses can't afford both. At the campus level, which unit will be expected to pay for products such as Plum Analytics, Digital Measures, InCites, etc.? Offices on campus often point to the library to pay, but library budgets generally can't absorb these costs. Scholarly output assessment measures are poised to shift and additional measures be added to assessment but adoption and integration per discipline or department will not occur all at once. Campus and discipline tenure and promotion processes will include new metrics but some will be slower to adapt. Also libraries are being asked to double check commercial research impact products/results, which is impossible since the commercial products use a proprietary methodology. Adoption and widespread use of ORCID identifiers will help, but this will still take several years to ramp up.

There is no one-size-fits-all solution for scholarly output assessment. There is a need to think beyond the STEM disciplines to the ways in which other disciplines, particularly in the humanities, can and should evaluate scholarly output. There is also an increased need to account for alternative methods of scholarly output, such as conference posters or the development of new technology or methods based on research.

Use of measures beyond citations in promotion and tenure decisions and departmental evaluations, including alt metrics and institutional repository statistics. Also, defining what those measures mean qualitatively as well as quantitatively.

Vendors will develop tools that we have to evaluate and budget for. Faculty will use a variety of vendors and open source software, creating a range of demands from different departments and disciplines. It will take time to develop consensus on the most effective tools. Changes in publishing will impact how output is assessed (e.g., data publications and article-level metrics).

We expect to see more and more interest in identifying and visualizing scholarly networks. We expect the role of linked data and semantic web technologies to continue to grow in this area.

We need to see more integration into traditional bibliometrics work. We also need to see more standardization of the data—that is what is being measured. All of the vendors do it differently. Glad to see that NISO is stepping up in this arena.

We should know how social networking tools might be used to support promotion and tenure cases for graduate students, newer faculty, and well-established faculty.

When libraries collaborate with other university units to host assessment tools like VIVO and semprotics, faculty will have a more formal and trusted means to rely on their use.

ADDITIONAL COMMENTS

25. **Please enter any additional information that may assist the survey authors' understanding of your library's scholarly output assessment activities and services.** N=24

As indicated earlier in the survey, it should be emphasized that the services available to patrons and the training activities available to patrons and Libraries staff are generally offered on an ad hoc basis rather than through established programs related to scholarly output assessment.

Most activities thus far have been related to science, engineering, and medicine groups, with some in business.

One of the successes the library system has had is the grass roots effort to develop a Health & Natural Sciences team. This is an interdisciplinary group of librarians that has led the initiative for creating activities and services of scholarly output assessment for the libraries through a series of classes branded as Accelerate Your Research.

Our activities and services in this area are largely left up to individual library liaisons. We do have an expectation that librarians will provide these services.

Our activities are not coordinated at this time but happen in various departments of the library as faculty needs arise and training and willingness on the part of library staff continues.

Our activities have been somewhat reactive to date. Support has been provided when requested, but we are working on developing a more well-defined set of services in this area.

Our response to this survey will rapidly evolve since we have started a major reorganisation of our structure from top to bottom. New positions will be created in the future while some others will disappear. This will mainly be done by reallocation of staff.

Scholarly output assessment has not been a distinct focus, but is part of our larger effort to support the scholarly publishing needs and interests of our user communities.

The university is a decentralized institution, and as a result, the collection of scholarly research outputs is taking place many times over at the individual, department, college, and campus levels. It is time consuming to collect and report on this information. Our campus is in the process of implementing the PURE researcher information system for faculty and researchers, which we hope will help to centralize data collection, automatically capture many outputs, and serve as a showcase for our research. Improving research analytics is a secondary goal of this project, but we see opportunities for sharing information across systems, simplifying data collection and activity reporting for colleges.

There are varying levels of service in scholarly output assessment in our library. The Medical Center has done a lot of forward-thinking work on this front and has been doing so for years, whereas other units are just now getting involved.

This is a major area of interest and conversation in our library system and there seem to be many opportunities for collaborating with other campus units, but such collaborations are complex politically, strategically, procedurally, and technically.

This survey is difficult to complete since we are in the early planning stages of a program. We are interested to find out if there are other institutions that have made this assessment a priority and have implemented a program.

Through our distributed model, we are building expertise across our library system and across disciplines. We are being proactive and notice the growing interest. We value the deep expertise some library faculty have already attained.

We do not have a developed program in this area, yet. This survey has prompted several conversations and ideas for further development in this area.

We do not provide or generate reports as a normal service to our faculty/researchers. We focus on teaching them how to use the tools and on their weaknesses and strengths. Often help is needed to formulate complicated queries in systems like Web of Science and Scopus.

We have strong partnerships with the Office of Research & Engagement and the Office of the Provost. They have acquired systems and look to the library to support faculty and administrators in using the systems.

We need to be more pro-active in training and development of staff in this area. Our services need a more coordinated approach; we are now too decentralized and fractured. As a result, campus units are hiring their own in-house expertise to do this work, side-stepping the library.

We offer the most limited, non-advertised, occasional support by a reference librarian to the occasional faculty member.

We recognize the importance of services in this area and are currently advertising for a Scholarly Communications Librarian to develop these services.

We're just at the beginning, and still have a lot to learn and do.

We've pretty much covered it. We have an established scholarly communications program, but a new librarian in the role who is bringing a new focus on scholarly assessment. Because of this, much of the material requested is under development, and we do not have live pages to offer links for at this time.

We understand the importance of developing library services that assist researchers throughout the lifecycle of the research process, including evaluation. We are committed to developing research assessment service here and have already undertaken a number of steps in that direction. These include a series of talks and seminars on the importance of bibliometric services to support research activity of university faculty, trials of industry-standard tools, and FY16 project to develop bibliometric service.

While currently we don't offer a dedicated advertised service called "Scholarly Output Assessment," services of that kind are coming as we get started with our transition to campus-wide adoption of a faculty profile system (Symplectic Elements). This tool will enable scholars to track many aspects of their scholarly impact and scholarly communication. The strategic initiatives manager here at the library has done (and continues to do) training with campus faculty to understand how to use the tools available in the faculty profile system. Other assessment questions that come in are frequently directed to the scholarly communications librarian or subject liaisons.

While subject liaisons have always provided assistance with citation reports, scholarly output assessment is not an established, dedicated service at our institution. However, academic units started to express the desire and need

for assistance with the process. The library is actively engaged in consultations and conversations with academic departments to identify specific aspects of this effort where the library could play a leading role.

RESPONDING INSTITUTIONS

University at Albany, SUNY

University of Alberta

Arizona State University

Boston University

Brigham Young University

University of British Columbia

University at Buffalo, SUNY

University of Calgary

University of California, Irvine

University of California, Los Angeles

University of California, San Diego

Case Western Reserve University

University of Chicago

University of Colorado at Boulder

Colorado State University

University of Connecticut

Duke University

Emory University

University of Florida

Florida State University

George Washington University

Georgetown University

University of Georgia

Georgia Institute of Technology

Harvard University

University of Hawaii at Manoa

University of Illinois at Chicago

University of Illinois at Urbana-Champaign

Indiana University Bloomington

University of Iowa

Iowa State University

Johns Hopkins University

University of Kansas

Kent State University

University of Kentucky

Université Laval

Louisiana State University

University of Louisville

McGill University

University of Manitoba

University of Maryland

University of Massachusetts, Amherst

Massachusetts Institute of Technology

University of Miami

University of Michigan

University of Missouri

New York University

University of North Carolina at Chapel Hill

North Carolina State University

Northwestern University

University of Notre Dame

Ohio University

Ohio State University

University of Oklahoma

Oklahoma State University

University of Oregon

University of Ottawa

Pennsylvania State University

University of Pittsburgh

Purdue University

Queen's University

Rutgers University

Smithsonian Institution

Southern Illinois University Carbondale

Stony Brook University, SUNY

Syracuse University

Temple University

University of Tennessee

University of Texas at Austin

Texas A&M University

University of Toronto

Vanderbilt University

University of Virginia

Virginia Tech

University of Washington

Washington University in St. Louis

Western University

University of Wisconsin–Madison

Yale University
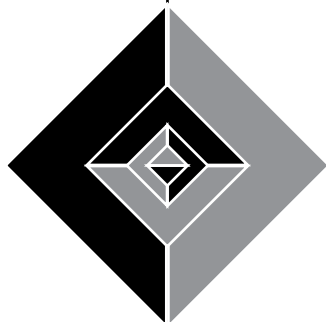
REPRESENTATIVE DOCUMENTS

Training Material

Demystifying Scholarly Publishing: Selecting scholarly publishing venues to maximize your impact while avoiding "predatory publishers"

Do you often wonder how to select a journal in which to publish or wonder about the quality of a journal? This workshop will demonstrate tools to identify potential journals in your field, how to determine impact factors for journals (Journal Citation Reports, Scimago), how to find where a journal is indexed for dissemination, and tools to evaluate the quality of journals. Reputable, peer–reviewed Open Access journals are on the rise, but so are "predatory publisher" that charge publication fees but do little in terms of peer review. Tips and tools to identify legitimate open access journals and avoid predatory publishers will also be covered, to help you determine if publishing in a specific open access journal will be worth the author fee.

Demystifying Scholarly Publishing: Selecting scholarly publishing venues to maximize your impact while avoiding "predatory publishers"

Date	Time	Instructor	Attend
Thursday, January 29	Noon – 1:00 p.m.	Sandy	Attend Session
Wednesday, February 11	3:00 p.m. – 4:00 p.m.	Sandy	Attend Session

» **Enroll in the Demystifying Scholarly Publishing: Selecting scholarly publishing venues to maximize your impact while avoiding "predatory publishers" Online Workshop**

THE UNIVERSITY OF IOWA LIBRARIES

Determining Your Scholarly Impact
Amy Blevins, MALS
Hardin Library for the Health Sciences

Roadmap for Today

Pre-publishing
- Determining Where to Publish
- Determining the Impact of Journals

Post Publishing
- Determining the Impact of Specific Articles and Researchers
- (and maybe determining the impact of journals at this point, too)

Deciding Where to Publish Articles

- Ulrich's advanced search screen
- Jane - http://www.biosemantics.org/jane/
- Database searching

Determining the Impact of Journals

- Impact Factor
- Eigenfactor
- Open Access
- Indexing

Impact Factor

A quantitative measure of the frequency with which the "average article" published in a given scholarly journal has been cited in a particular year or period; this is used in citation analysis (http://www.library.tudelft.nl/tulib/glossary/index.htm#I)

$$\text{Impact Factor for Journal X} = \frac{\text{Citations in 2013 to articles published in X in 2011 and 2012}}{\text{Articles published in X in 2011 and 2012}}$$

Eigenfactor

Utilizes data from ISI's Journal Citation Reports. Contains two numbers:

- Eigenfactor – Determines journal's total importance to the scientific community. Based partially on the size of the number of articles published by a journal.
- Article Influence – Average influence of each of article over it's first five years after publication. Similar to impact factor.

1

Where to find Impact Factors and EigenFactors
- Ulrich's
- Journal Citation Reports (JCR)
- Eigenfactor.com

Determining the Impact of Specific Articles and Researchers
- Cited Reference Searching
- H Index
- Altmetrics

Cited Reference Searching

More accurate if done at the article level, but can also be done at the researcher level.

- Web of Science – Allows you to include incorrectly cited resources.
- Scopus – Easy interface
- Google Scholar – Larger number of hits. Sometimes inflated due to duplicates.

What is H-Index OR Hirsch Index?

- Based on a formula that calculates the average number of citing articles for all items in a [pre]defined set.
- Used to measure the productivity and impact of the published works of a particular researcher or even a group of researchers.
- Developed by Jorge E. Hirsch and published in *Proceedings of the National Academy of Sciences of the United States of America* 102 (46): 16569-16572 November 15 2005

Where do you find your H-Index?

- Web of Science – Run an author search, then create a "Citation Report."
- Scopus – Run and author search, then click "Citation Overview."
- Researcher ID
- Google Citations
  http://Scholar.google.com/citations

Altmetrics

This is the measurement of the impact an article has on social media such as Twitter, Facebook, etc. For more information, see
http://blog.lib.uiowa.edu/needtoknow/2013/08/08/interesting-articles-on-altmetrics/

2

Overall Preparation Tools

- Publish or Perish
  http://www.harzing.com/pop.htm
- Calculates
  - H-index
  - Egghe's g-index
  - Zhang's e-index
  - Age-weighted citation rate and AW-index
  - Multi-authored h-index
  - Average annual increase in the individual H-index
  - And more

Librarians and Tenure

- Open discussion

Closing Words

- Bibliometrics are flawed.
- Tenure requirements can vary greatly between departments and disciplines.
- Faculty generally appreciate the knowledge and expertise we can share with them during this time in their careers.

3

THE UNIVERSITY OF IOWA LIBRARIES
Hardin Library for the Health Sciences

How to Determine Your Scholarly Impact

Agenda
1. Determining Where to Publish
    a. Ulrich's
    b. JANE http://www.biosemantics.org/jane/
2. Determining the Impact of Journals
    a. Ulrich's
    b. Journal Citation Reports (JCR)
    c. Eigenfactor
    d. Open Access Journals
3. Determining the Impact of Specific Articles and Researchers
    a. Cited Reference Searching
        i. Web of Science, Scopus, and Google Scholar
    b. H Index
        i. Web of Science – Run an author search, then create a "Citation Report."
        ii. Scopus – Run and author search, then click "Citation Overview."
        iii. Researcher ID
        iv. Google Citations
    c. Overall
        i. Publish or Perish http://www.harzing.com/pop.htm
    d. Altmetrics

Services at the Library
- Assistance in determining the amount of times a publication has been cited.
- Assistance in locating the impact factor for a journal.
- Assistance with using bibliographic management tools to manage and cite references
- Assistance with other questions. Just ask!

Deciding Where to Publish
- **Ulrich's (Listed under "u" on Electronic Resources page)**—Find out if a journal is peer-reviewed, who it's published by, where it's indexed, impact factors, and more.
- **ISI Journal Citation Reports (Under Electronic Resources)** – This is where you can find impact factors, Eigenfactors, and Article Influence Scores.
- **Open Access Journals:** The open access movement strives to make scholarly research available to everyone. These journals are free due to a different publishing model (an organization or the author pays for publishing costs. For more information, see http://www.lib.uiowa.edu/openaccess/

Determining Impact
- **Web of Science**– Go here to see who has cited your work or the work of someone else.
- **Scopus –** Another option for seeing who has cited your work or the work of someone else.
- **Google Scholar** (http://scholar.google.com) – This is another way to see who has cited your work. Keep in mind that is not quite as reputable as Web of Science.

http://www.lib.uiowa.edu/hardin
319-335-9151

aeb 8-11-14

THE
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OF IOWA

- **Impact Factor**: A quantitative measure of the frequency with which the "average article" published in a given scholarly journal has been cited in a particular year or period; this is used in citation analysis (definition retrieved from http://www.library.tudelft.nl/tulib/glossary/index.htm#I)

-

$$\text{Impact Factor for Journal X} = \frac{\text{Citations in 2013 to articles published in X in 2011 and 2012}}{\text{Articles published in X in 2011 and 2012}}$$

- **Eigenfactor:** The Eigenfactor is another way to rank journals based on their influence in the field. It tries to get around some of the issues that make impact factors controversial. To find out more, see "Why Eigenfactor?" at http://www.eigenfactor.org/whyeigenfactor.htm
- **H-Index:** This number is based on a formula that calculates the average number of citing articles for all items in a [pre]defined set. It can be used to measure the productivity and impact of the published works of a particular researcher or even a group of researchers. The h-index was developed by Jorge E. Hirsch and published in *Proceedings of the National Academy of Sciences of the United States of America* 102 (46): 16569-16572 November 15 2005. It is sometimes referred to as the Hirsch Index.
- **Altmetrics:** This is the measurement of the impact an article has on social media such as Twitter, Facebook, etc. For more information, see http://blog.lib.uiowa.edu/needtoknow/2013/08/08/interesting-articles-on-altmetrics/

Managing References

Citation Management Tools- EndNote and RefWorks

	EndNote desktop	RefWorks	EndNote Basic
Best use	Those with complex, ongoing research projects and planning on career of publication who are primarily using the same workstation for research and writing.	RefWorks will no longer be available after December 2014. Less complex projects. Ideal for those who are going to be using multiple computers for research.	Less complex projects. Ideal for those who are going to be using multiple computers for research.
Location of files	Locally on your computer	On RefWorks site (server)	On EndNote site (server)
Getting citations in…	Automatic export from many databases. 2 step process if not available.	Automatic export from many databases. 2 step process if not available.	Automatic export from many databases. 2 step process if not available.
# of styles	Over 4500	Over 2700	Over 2000
Sharing	Because library lives on your computer, sharing is through sharing of computer or compressing files. Colleagues will need EndNote installed to view	RefShare feature allows you to share folders or your entire library with anyone with an internet connection (though pdfs cannot be shared in this way).	Allows you to share folders or your entire library with anyone with an internet connection, and allows you to grant people editing rights to your citations.
Overall strengths	Great for very large amounts of citations. Also has a feature that can pull some PDF's and automatically attach them to citations.	Very easy to learn, use anywhere with an internet connection. Easy to share citations with others.	Very easy to learn, use anywhere with an internet connection. Easy to share citations with others and to allow others full access to citations.

More information on citing sources: http://guides.lib.uiowa.edu/citingsources

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Ulrich's

Accessing the Database

1. Go to the Hardin Library homepage at http://www.lib.uiowa.edu/hardin/

2. Click on the link that says "Health Sciences Resources A-Z." It is located at the bottom of the section, "Popular Databases."

3. Select "Ulrich's" from the list.

4. If you are off-campus, you will be prompted for your Hawk ID and password.

Searching for a Specific Journal

1. Enter the name of the journal for which you are looking and click the "Submit" button. If you have trouble, you may want to find the journal's ISSN (unique identifier) and search for the journal that way.

Searching for Journals by Subject

Advanced Search (Recommended)

1. From the Ulrich's home page, click on the link for "Advanced Search."

Enter a Title, ISSN, or search term to find journals or other periodicals:

[   ] 🔍   ▶ Advanced Search
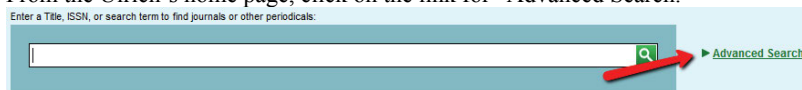
2. When looking for journals in your subject area consider doing a "Keyword" first. The subjects are very specific and sometimes hard to guess.

3. Keep in mind that you have further options for your search including limiting to "active titles" and "refereed titles."

Subject Search (If you know of a journal in your field)

1. From the homepage, select "title (keyword)" from the drop box and put in the name of your journal.

2. Now, click on the title of the journal you searched.

3. You will see links for the subject the journal covers. Clicking those links will display all the journals in that area that are contained in Ulrich's.

Finding Impact Factors/Eigenfactors

1. Follow the directions for "Searching for a Specific Journal."

2. Once you have clicked on the journal name, look to the top left of the screen. You will see a box that says JCR [JCR Web]

3. This page will simply have the impact factors for the journal. To see the Eigenfactor and more information, click the "Return to Journal" button. [RETURN TO JOURNAL]

Journal Citation Reports

http://www.lib.uiowa.edu/hardin
319-335-9151

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Accessing the Database

1. Go to the Hardin Library homepage at http://www.lib.uiowa.edu/hardin/

2. Click on the link that says "Health Sciences Resources A-Z." It is located at the bottom of the section, "Popular Databases."

3. Select "Journal Citation Reports" from the list.

4. If you are off-campus, you will be prompted for your Hawk ID and password.

Searching for Journals by Subject (Recommended)

1. Once you have accessed the database, you will have options to select the science or social science database. Keep in mind that the most recent scores will be from the previous year.

2. On the right, you select "Subject Category" from "View a Group of Journals By" and then click on "Submit."

3. Next, select your subject category.

4. Select "View Journal Data," and then choose how you would like your results sorted from the drop box.

5. Click "Submit."

6. Now, you will see a list of journals in the category you chose. If you look to the top left of the screen, you will notice options for sorting the journals by title, impact factor, Eigenfactor, etc. You can also decide to view the category summary list (this may help with interpreting the impact factors since those can vary greatly between different subjects.)

7. Clicking on a journal title will allow you to see more information, such as how the impact factor was determined, the number of self cites for that journal, etc. To learn more about any of the data in Journal Citation Reports, use the "i" icon.
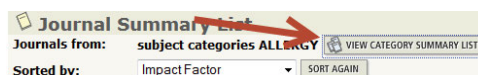
Searching for a Specific Journal

If you are searching for a specific journal title's impact factor or Eigenfactor, you may want to use Ulrich's. It is a slightly easier interface. You may also consider looking for a particular journal in a subject set as in the directions above.

1. Once you have accessed the database, you will have options to select the science or social science database. Keep in mind that the most recent scores will be from the previous year.

2. On the right, you can select "Search for a Specific Journal" and then click on "Submit."

3. Now, click on the link for "View List for Full Journal Titles."

4. Use your computer's find function (on a PC it is ctrl + F) to locate the journal title you are looking for NOTE: Not all journals have impact factors.)

5. Now, copy that journal title exactly as it appears in the list, and close the window with the journal titles.

6. Select "Full Journal Title" from the search page and then paste the copied journal title into the search box.

7. Finally, click search.

Web of Science: Cited Reference Searching

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Accessing the Database

1. Go to the Hardin Library homepage at http://www.lib.uiowa.edu/hardin/

2. Click on the link that says "Health Sciences Resources A-Z." It is located at the bottom of the section, "Popular Databases."

3. If you are off-campus, you will be prompted for your Hawk ID and password.

Searching

1. The first thing you will want to do is to click the tab for Web of Science. It is located near the top of the screen.

2. Now, click on the link for "Cited Reference Search."

3. Start with the author's name. You want to enter it as [lastname firstinitial*]. The asterisk tells the database to search for the author if they are cited by just their initial or by their whole name or by two initials.

4. Now, for the journal title, you want to click the link that says "Journal Abbreviation List."

5. Once you open the list, you will want to find your journal. Click on the letter of the first "Non-stop word" of the journal title. (Stop words include: A, the, or, and, etc.)

6. Now, you can scroll down the list till you find your journal (Or use Ctrl+F to search for the title). Copy the abbreviation.

7. Close the journal title window.

8. Paste the abbreviated journal title into the "Cited Work" search box. You will want to follow the name of the journal with an "*" as you did with the author name.

9. For the date, leave the box blank. This is very important as many articles are cited with incorrect dates.

10. Click the "Search" button at the bottom of the screen.

11. You will now see a list of possible articles by your author. Select all that could possibly be the article you want. For example, if you were looking to see how many times this article, M.A. Marra, S.J.M. Jones, C.R. Astell, et al. "The genome sequence of the SARS-associated coronavirus ." *SCIENCE,* 300 (5624): 1399-1404, May 30, 2003, was cited, you would receive the following list to select from. (See image on next page).

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Select	Cited Author	Cited Work [SHOW EXPANDED TITLES]	Year	Volume	Page	Article ID	Citing Articles **	View Record
☐	...Marra M	SCIENCE	2006	313	1596	DOI 10.1126/science.1128691	730	View Record
☐	...Marra M	SCIENCE	2005	309	436	DOI 10.1126/science.1112680	461	View Record
☐	...Marra M	SCIENCE	2004	306	636	DOI 10.1126/science.1105136	402	View Record
☑	MARRA M	SCIENCE	2003	30	1399	DOI 10.1126/SC2ENCE.1085953	2	
☐	...Marra M	SCIENCE	1999	286	2468		234	View Record
☐	MARRA MA	SCIENCE					1	
☐	...Marra MA	SCIENCE	2009	324	522	DOI 10.1126/science.1169588	114	View Record
☐	...Marra MA	SCIENCE	2007	316	222	DOI 10.1126/science.1139247	309	View Record
☐	...Marra MA	SCIENCE	2006	314	941	DOI 10.1126/science.1133609	235	View Record
☐	...Marra MA	SCIENCE	2005	307	1321	DOI 10.1126/science.1103773	234	View Record
☑	MARRA MA	SCIENCE	2004	300	1399		1	
☑	MARRA MA	SCIENCE	2003				4	
☑	MARRA MA	SCIENCE	2003			UNSP 1085953	2	
☑	MARRA MA	SCIENCE	2003		1	DOI 10.1126/SCIENCE.10885953	2	
☑	MARRA MA	SCIENCE	2003		1399		1	
☑	MARRA MA	SCIENCE	2003	5624	1399		1	
☑	MARRA MA	SCIENCE	2003	300	139		1	
☑	MARRA MA	SCIENCE	2003	300	624		1	
☑	MARRA MA	SCIENCE	2003	300	1309		1	
☑	MARRA MA	SCIENCE	2003	300	1377		3	
☑	MARRA MA	SCIENCE	2003	300	1388		1	
☑	MARRA MA	SCIENCE	2003	300	1399	DOI 10.1126/science.1085953	984	View Record
☑	MARRA MA	SCIENCE	2003	300	1401		1	

12. Check the box to the left of all the citations that could be the same as the one you are for which you are looking. Then, click the link near the bottom left of the page that says "Finish Search."

13. At the left of the page, you will see options for refining your results. For instance, you may want to only see the times an article was cited in another article (see image to the right).

14. You'll find the number of times the article was cited listed near the top left of the page.
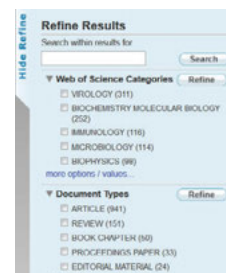
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Scopus: Cited Reference Searching

Accessing the Database

1. Go to the Hardin Library homepage at http://www.lib.uiowa.edu/hardin/

2. Click on the link that says "Health Sciences Resources A-Z." It is located at the bottom of the section, "Popular Databases."

3. If you are off-campus, you will be prompted for your Hawk ID and password.

Searching

1. Enter the author's name, "lastName firstInitial," into the first search box. Change the drop box to "Authors," then "Add Search Field" using the link below the search box.

2. Enter the name of the journal using the "Source Title" drop box option.

3. Enter the article title using the "Article Title" drop box option."

4. Click Search.

5. The number of times the work was cited shows up on the far right of the screen. You can click on the link to see which articles have cited that work.

Google Scholar: Cited Reference Searching

1. Go to www.scholar.google.com

2. Type the title of the article you are searching for into the search box, and click "Search."

3. If Google has information on other people citing the article, you will see a link that says "Cited by #."

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H-Index: Creating a ResearcherID Account

1. Go to http://www.researcherid.com/Home.action and create a free account on the left-hand side. You will enter your email address, receive an email with a link, and then enter the rest of your information.

2. Once you have created your profile, you can edit it to add more information and determine what information will be visible to members of the public.

3. To add publications to your account, click on Add Publications.

4. The two easiest options under Add Publications are Search *Web of Science*, and Search *Web of Science* Distinct Author Sets.
   a. If the author has a unique name, Search *Web of Science* should work fine. The name should be pre-entered. Add a middle initial if there is one. If you are unsure if the middle initial is used, enter the first initial followed by a * (e.g., J*).

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b. If there are several authors publishing under the same name, try Search *Web of Science* Distinct Author Sets. As above, the name should be pre-entered and add the middle initial or * as needed. Once you perform the search, *Web of Science* will attempt to identify sets of articles that it thinks are by the same author. Use the author names, years, and journals to help determine which set is the right set. Very often there will be multiple correct sets due to the way the software works. In this case, click on the number to the right and work with the first set and then go back and work with subsequent sets.

Article Sets: 4 set(s) found

Step 2 of 3 : These are the sets of papers found for the name. Click a number to view the records in the set.

Set	Author Names	Publication Years	Source Titles (top 5 by record count)	# of Records
1.	BLEVINS A BLEVINS AH	1942-1994	- ARCHIVES OF INTERNAL MEDICINE (5) - ANNALS OF INTERNAL MEDICINE (4) - AMERICAN HEART JOURNAL (3) - ANNALS OF THE NEW YORK ACADEMY OF SCIENCES (3) - ARCHIVES OF OTOLARYNGOLOGY (3)	42
2.	BLEVINS AA	2002-2004	- ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY (2) - JOURNAL OF PHYSICAL CHEMISTRY B (1)	3
3.	BLEVINS AL	1973-1975	- GERONTOLOGIST (1) - INTERNATIONAL JOURNAL OF AGING HUMAN DEVELOPMENT (1)	2
4.	BLEVINS AL	1976	- SOCIOLOGY OF EDUCATION (2)	2

5. Once you have a set of articles, take a look at them and compare them to the list of publications on the CV. If the first few articles appear correct, I would recommend adding all of them to My Publications and then weeding out the incorrect ones. To add to My Publications, click "Select Page" and then "Add." Repeat with subsequent pages until all citations are added.

Articles: 114 record(s) returned

Step 2 of 2 : Select records on this page and add them to your list before navigating to other pages. Note that page navigation automatically submits the selections on the page to your list.

Page 1 of 12 **Go** ▶ ▶| Sort by: Date Processed ▾   Results per page: 10 ▾

☐ Select Page   Add selections to: My Publications: **Add**

☑ 1. Title: COMPARISON OF 600MG VERSUS 300MG LOADING DOSE OF CLOPIDOGREL FOR PATIENTS WITH STEMI: A META-ANALYSIS
Author(s): Vyas, Ankur; El Accaoui, Ramzi; Blevins, Amy; et al.
Source: JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY Volume: 61 Issue: 10 Pages: E37 Published: MAR 12 2013
Times Cited: 0

6. If using the Distinct Author set and you need to add more citations, do so now. When you are done, click on "Return to Researcher Profile" at the top of the screen.

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7. You should now see the publications on the right-hand side of your screen. Compare the citations here to those in the CV. Sort by "Publication Year" to make the comparison easier.

8. If there are incorrect citations (ie., not by the correct researcher), you can select them by clicking "Manage List" at the top right of the "My Publications: View." You can then select the incorrect citations and click "Delete Selected Publications" to remove them.

9. If there are citations on the CV that were not found by your first search, you can try searching again using the Search *Web of Science* option and entering the article title instead of the author name. Note that meeting abstracts may not be in the database.

10. If you cannot find a citation using the *Web of Science* tools we discussed, you can enter the citation into EndNote Web or into a tool such as EndNote or RefWorks. While EndNote Web will import directly into ResearcherID, EndNote and RefWorks require you to export the citation in RIS format and import it into your publications list using the "Upload RIS File" option under "Add Publications." For assistance doing this, please contact the Hardin Library at 335-9150 or lib-hardin@uiowa.edu.

    a. EndNote Web (www.myendnoteweb.com) provides the fastest and easiest way to add citations to ResearcherID. Sign in using the same username and password as ResearcherID. Select New Reference from the Collect menu, then enter the citation information in the correct fields (for books, include publisher and city in the Title field as these fields will not display in

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ResearcherID).   Remember to change the reference type.

Click on Unfiled on the left-hand side, select the citations you entered, and then select "My Publications" from the "Add to group…" dropdown. The citations should now be in your ResearcherID account.

b. In EndNote, select Export from the File menu, then select "Refman (RIS) Format" as your Output Style. If you do not see Refman as an option, click on "Select Another Style" from the top of the drop-down and then locate it. You can then import the records into ResearcherID.

c. In RefWorks, select Export from the References menu, indicate whether to export all citations or those from a folder, select "Bibliographic Software" export format, and export to a text file. You

can then import the records into ResearcherID.

11. Once you have entered all the necessary publications, you can calculate the h-index and other metrics by clicking on "Citation Metrics" under "My Publications."

Google Scholar Citations

http://Scholar.google.com/citations

Another option for determining impact at an author level. There are instructions for setting up your page once you sign up for an account.

Further Assistance

We are more than happy to assist you with any questions you may have.

Feel free to contact us at 319-335-9151 or lib-hardin@uiowa.edu

---**Title of session**
Scholarly Impact: Traditional and Alternative Metrics

Name and Position of Presenter
Ericka Raber, Research and Instruction Librarian
Amy Blevins, Clinical Education Librarian

Date, Time, Venue
Tuesday, April 29th, 2014, from 10 to 11 am in LIB 2032.

Session description:
Ericka and Amy will provide an overview of some traditional and alternative metrics for measuring scholarly impact. Some tools to be discussed include Journal Citation Report, Web of Science, Scopus, Eigenfactor, H-index, Google Citations, and ImpactStory.

Who should attend?
Library staff who interact with faculty and want to learn more about impact factors, citation counts, or alternative tools for measuring scholarly impact.

Special Instructions
This session is really geared toward those who attend, so please bring questions, examples, or supply the presenters with questions or subtopics ahead of time to get the most out of this session.

TAKING CONTROL OF YOUR RESEARCH VISIBILITY

A hands-on guide to improving research "impact" for scholars

Marc L. Greenberg & Ada Emmett
University of Kansas
Sept. 2014

Today

1. Big picture of impact

2. Types of Article Level Metrics (ALM) and what they can do for you.

3. Recipe for Visibility

4. Time for questions/assistance

Types of article-level metrics (ALM)

1. Usage - How many downloads? Where downloaded?
   a. Examples: KU ScholarWorks, Academia.edu

2. Captures - How many bookmarks, shares (CiteULike, Mendeley)
   a. Example: how many "reads" an item in Mendeley has been

3. Mentions - Mentions in non-academic media (news stories, Wikipedia, etc.)
   a. Example: Altmetric

4. Social media - Facebook, LinkedIn, Twitter shares
   a. Example: Altmetric

5. Citations - Classic metric for "impact"
   a. Example: GoogleScholar, GoogleScholar Metrics

Read more in SPARC's Article-Level Metrics Primer.

Our recipe for visibility

1. Know your rights w.r.t. copyright and keep as many as you can. Timothy K. Armstrong: An Introduction to Publication Agreements for Authors .

2. Work with KUSW*: a digital repository curates your work, makes it openly available, and it tracks usage.

3. Register with ORCiD and claim your electronically visible research, differentiate it from others' publications with the same or similar names.

4. Claim an Academia.edu page and link there to your papers in KUSW. Academia also connects you to the global community of scholars in your areas of interest.

5. Claim and make public your GoogleScholar page. Edit it to weed out duplicates and works mistakenly attributed to you. Keep track of your h-index (the number h of your works cited h or more times).

Read more in this short blog post.

Next Steps:

If you have not already done so, please do the following.

- Establish a Gmail (Google) account: https://mail.google.com

Once you have opened the account and logged in, acquaint yourself with the various services that are available through Google, especially "Scholar" (scholar.google.com).

- Establish an Academia.edu account: http://www.academia.edu

Fill out some information about your academic profile, e.g., title, research interests, upload a headshot (optional).

- Find your department's or program's collection in KU ScholarWorks: http://kuscholarworks.ku.edu

- Register for an ORCiD ID: https://orcid.org/register

Page **1** of **3**

Taking control of your research visibility
A hands-on guide to improving research "impact" for scholars
Marc L. Greenberg (Dept of Slavic Languages & Literatures), Ada Emmett (KU Libraries, Office of Scholarly Communication)

Getting Set Up

Put aside a bit of time to set up several accounts, instructions for which we will provide below.

In the following, we suggest you sign up for a number of services that involve giving your name and some professional data to various entities that are "players" in the emerging field of research statistics. (Guess what? They already have some of your data!)

We are confident that these entities are focused on research data only and, **so long as you do not provide personal data (birthdates, social security number, etc.)** to them, they should not affect your personal privacy. In general, however, you should realize that as soon as you publish your work, your professional data is "out there" regardless of your volition, and the tools we are discussing should help you to be more in control of how and where your data is used, check its accuracy and correct it as necessary as well as, especially, to use it to your professional advantage.

The good news: once you have done this, you will have already taken a giant step towards controlling your research visibility.

Once registered for the below sites, please come to the workshop with your login/password information. We include two examples and then instructions to set-up your own accounts in the following.

Get Started:

You will be instructed below on the basic steps to register for an:

1. ORCiD id first;
2. GoogleScholar Citation account next;
3. and then at least two others below. Academia.edu best option for humanists—but see what the others do for you. Please be ready to write down new passwords, ID numbers, etc.

ORCiD *	http://orcid.org
What it does	ORCiD is an open, non-profit, community-based effort to provide a registry of unique researcher identifiers and a transparent method of linking research activities and outputs to these identifiers. ORCID is unique in its ability to reach across disciplines, research sectors, and national boundaries and its cooperation with other identifier systems.
To register:	From ORCiD home page, go to Registration page, add name, create password, be sure to make "default settings" (middle of the page) set to public.
	Accept the terms of ORCiD
	Hit "register" button at bottom.
	New page will appear, note your ORCiD number on left side, confirm papers listed as yours if needed. Import or add your own papers – you can come back to do this.
	Once you register for other sites you may have them mapped with your ORCiD—ours has ResearcherID and Scopus also listed on left. ORCiD allows you to do this from its site.
Username:	
Password:	
ORCID ID number:	

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Taking Control of Your Research Visibility (worksheet/handouts)
http://openaccess.ku.edu/open-access-initiatives-university-kansas-ku

Google scholar *	http://scholar.google.com
What it does	Tracks web-searchable references to your published works and citations to them as well as calculates citation statistics, e.g., H-index (the number of articles H cited H times).
You must have a Gmail account:	To set up a Gmail account go to gmail.com and create an account.
	Once logged into your Gmail account, proceed to http://scholar.google.com and notice the option for "My citations" or an activation option. Click on that and follow directions.
	Confirm papers that are yours (or are not yours)
Username:	
Password:	
My ID and/or unique URL:	

Academia.edu share research *	http://www.academia.edu
What it does	"Academia.edu is a platform for academics to share research papers. The company's mission is to accelerate the world's research. Academics use Academia.edu to share their research, monitor deep analytics around the impact of their research, and track the research of academics they follow. 3,853,925 academics have signed up to Academia.edu, adding 1,633,496 papers and 818,149 research interests. Academia.edu attracts over 5 million unique visitors a month." Also gives nice alerts when your work is accessed from its site.
Username:	
Password:	
My ID and/or unique URL:	

ImpactStory.	http://impactstory.org
What it does	"Share the full story of your research impact. ImpactStory is your impact profile on the web: we reveal the diverse impacts of your articles, datasets, software, and more". Provides additional ways of gathering information – for example how many "readers" in Mendeley.
	Choose the large "make my impact matter" button.
	Notice you can supply your ORCiD and that you can import via your Google Scholar citation page more of your references.
	(Go back to Google Scholar and use drop-down menu to save your records in the bibtex file format, which then you can upload to ImpactStory.)
	Finish the registration process—note the new kinds of data being supplied.
Username:	
Password:	
My ID and/or unique URL:	

RESEARCHER**ID** *	http://www.researcherid.com/
What it does (plays nicely with ORCID and some of the other sites listed here.)	[Owned by Thomson Reuters,] "ResearcherID provides a solution to the author ambiguity problem within the scholarly research community. Each member is assigned a unique identifier to enable researchers to manage their publication lists, track their times cited counts and h-index, identify potential collaborators and avoid author misidentification. In addition, your ResearcherID information integrates with the Web of Knowledge and is ORCID compliant, allowing you to claim and showcase your publications from a single one [sic] account." *NB: you can also register within ORCID once you have established your ORCID account.*
	Go to ResearcherID main page and look for option to register then "Join Now"
	Fill out basic information.
	Note options to add alternative names under which you've published or are known by.
	On results page note your ResearcherID number and notice papers retrieved, or select option for it to retrieve your papers.
	Notice the "exchange data with ORCiD" (on left) and the "add publications" on right middle in orange.
	Manage your profile as well with additional information.
	Poke around the options to see what is interesting
ResearcherID Username:	
Password:	
My ID and/or unique URL:	

Some further reading

Greenberg, Marc L. "Joan Smiths of the World, Disunite!" Blog post: http://slavist-semistrunnik.blogspot.com/2013/08/joan-smiths-of-world-disunite.html

Greenberg, Marc L. "Not Waving But Drowning." Blog post: http://slavist-semistrunnik.blogspot.com/2013/08/not-waving-but-drowning.html

Lin, Jennifer and Martin Fenner. "Article-Level Metrics – Learning to Walk, Run & Do Algebra." Blog post: **http://tinyurl.com/jw248vo**

Tanenbaum, Greg. 2013. Article-Level Metrics. A SPARC Primer. http://sparc.arl.org/sites/default/files/sparc-alm-primer.pdf

RESEARCH HUB

Tools for Tracking Your Research Impact: Author and Article Metrics

Presentors

Amanda Johnson
amjohnson@unc.edu

Danianne Mizzy
mizzy@email.unc.edu

For more information on tracking scholarly impact, metrics and tools please visit our guide:

http://guides.lib.unc.edu/measureimpact

Upcoming Library Events

Nov. 17, 5pm
3D Printing Workshop

Nov. 18, 1pm
(Relatively) Easy Data Vizualization with Tableau

Nov. 19 GIS Day

Need help?

Contact the Health and Natural Sciences Team

sciencehelp@listserv.unc.edu

Author IDs

Author IDs provide a solution to name ambiguity and can be used to link altnernative spellings and name changes to one author.

ORCID
• Over 80 partners including Nature, IEEE, PLOS, Elsevier
• Integrated with ISNI and Re-searcherID
• Customizable profile
• Retroactively add publications and automate new publications

ResearcherID
• Platform specific to Web of Knowledge
• Create a customizable profile w a publica-tion list
• Researcher Labs which include some author metrics

Scopus Author
• Platform specific to Scopus
• Profiel is automatically created but can re-quest changes and integrate with ORCID
• Provides traditional metrics

Author Profiles

Types of Profiles:
• Researcher Communities: Academia / ResearchGate
• Reference managment tools with social functions: Mendeley
• Search engines with author profiles: Google Scholar, Scopus

	Scopus	Google Scholar Citations	Research Gate	Academia.edu	Mendeley
Biography	No	Affiliations and research interests only	Yes	Yes	Yes
Publication List	Yes	Yes	Yes	Yes	Yes
Linked Publications	Yes	Yes	Possible	Possible	Yes
Automated publication list	via Scopus	Yes (not always accu-rate)	PubMed, IEEE, Cite Seer, BMC	Crossref, Microsft AS, PubMed, ArXiv	Available via many seach engines and importing RIS or BibTe-eX files
Metrics	Yes	Yes	Yes	No	Yes, but metrics only visible to pro-fiel owner
Social Media	No	No	Yes	Yes	No
No. Users	Unknown	Unknwn	5m	15.5m	over 2.5m

Accelerate Your Research
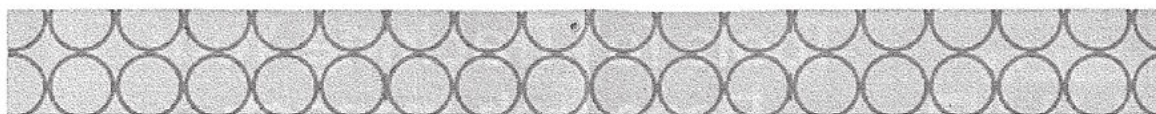
Article Level Metrics (ALMs) vs. Altmetrics

ALMs are about the incorporation of altmetrics and traditional data points to define impact at the article level. Altmetrics are about the data sources, not the level of aggregation. The attempt to incorporate new data sources to measure the impact of something, whether that something is an article or a journal or an individual scholar, is what defines altmetrics.

Article Level Metrics

Article-Level Metrics (ALMs) are a new approach to quantifying the reach and impact of published research. Historically, impact has been measured at the journal level. A journal's average number of citations to recent articles (i.e., its impact factor) has for years served as a proxy for that publication's importance. Articles published in highly-cited journals were viewed as impactful by association. As electronic dissemination of scholarly content has surpassed print, it has become easier to disaggregate an individual article's impact from the publication in which it appeared. It's also possible to track different markers of an article's reach, beyond just citations. ALMs seek to incorporate new data sources (sometimes referred to as "altmetrics") along with traditional measures to present a richer picture of how an individual article is being discussed, shared, and used.

The Public Library of Science (PLOS) was the originator of Article-Level Metrics, and provides a robust set of resources and tools to facilitate the understanding and application of ALMs:
http://article-level-metrics.plos.org

Adapted from the SPARC ALM site and Primer
http://www.sparc.arl.org/initiatives/article-level-metrics

Altmetrics

Providers:
• Altmetric.com - http://www.altmetric.com/
• Impactstory - https://impactstory.org/
• Plum Analytics (enterprise-level tool) - http://www.plumanalytics.com/

Social behavior that is being tracked includes:
• Viewed
• Discussed
• Saved
• Cited
• Recommended

For more information see:

Information Standards Quarterly (ISQ), Summer 2013 Volume 25, no. 2
http://dx.doi.org/10.3789/isqv25no2.2013

Accelerate Your Research

Maximizing your scholarly identity

Ellysa Stern Cahoy
March 21, 2013

Overview

Citation Analysis--Web of Science and more

Journal Citation Reports

Enriching your research presence
- Google Scholar 'My Citations'
- Academia.edu
- SSRN

Citation Analysis -- Who cited me?

Citation Analysis Triangle

Google Scholar

Web of Science   Disciplinary database

Web of Science / Google Scholar
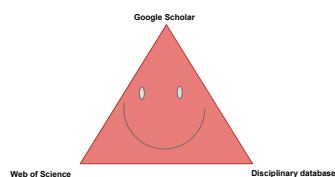
ISI Web of SCIENCE.   Google scholar

In the third corner...the disciplinary database

ProQuest **ProQuest Education Journals**
Basic Search | Advanced ▾ | Publications | About

What's your journal's impact factor?

Journal Citation Reports®

- Indexes journals by more than 3300 publishers in 80 countries

- Highlights the most frequently cited and highest impact journals in a field

1

Google Scholar / My Citations

Ellysa Cahoy Edit
Librarian, Penn State University Edit
Libraries - information literacy Edit
Verified email at psu.edu Edit
My profile is public Edit Link Add homepage

Change photo

Citation indices		
	All	Since 2008
Citations	113	69
h-index	7	6
i10-index	5	3

Citations to my articles

Web of Science / ResearcherID

RESEARCHERID
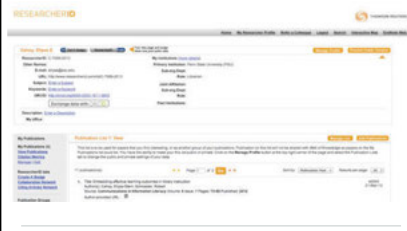
Other ways to share your work

Academia.edu
share research

SOCIAL SCIENCE RESEARCH NETWORK

PENN STATE SCHOLARSPHERE

Questions / Comments?

Thank you!

Ellysa Stern Cahoy
ellysa@psu.edu

2

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BIBLIOMETRICS SEMINAR

Thomas, Amberyn and **Rowlands, Ian** and **Mayo, Alexa** and **Larsen, Ronald L.** (2014) *Bibliometrics Seminar.* In: Bibliometrics Seminar, 22 May 2014, University Library System, University of Pittsburgh. (Unpublished)

PDF (Invitation and program for the Bibliometrics Seminar) - Supplemental Material
Download (53Kb) | Preview

Video (MP4) (Video recording: Opening [begins at 6:54])
Download (13Mb)

Microsoft PowerPoint (Presentation 1 by Amberyn Thomas, University of Queensland) - Presentation
Download (2418Kb)

Video (MP4) (Video recording: Amberyn Thomas presentation)
Download (63Mb)

Microsoft PowerPoint (Presentation 2 by Ian Rowlands, University Leicester) - Presentation
Download (614Kb)

Video (MP4) (Video recording: Ian Rowlands presentation)
Download (57Mb)

Microsoft PowerPoint (Presentation 3 by Alexa Mayo, University of Maryland) - Presentation
Download (3385Kb)

Video (MP4) (Video recording: Alexa Mayo presentation)
Download (45Mb)

Microsoft PowerPoint (Presentation 4 by Ron L. Larsen, University of Pittsburgh) - Presentation
Download (11Mb)

Video (MP4) (Video recording: Ron L. Larsen presentation)
Download (62Mb)

Abstract

On 22 May 2014, the University Library System, University of Pittsburgh, held a Bibliometrics Seminar, a program detailing

several research library service models for support of research evaluation and assessment. Three of the featured speakers--from academic libraries in the USA (Mayo), the UK (Rowlands), and Australia (Thomas)--discuss the development and operation of such services in their organizations, noting the drivers for development, the process of setting up the service, and the impact of the service on both the library and the institution. A faculty colleague (Larsen) talks about his needs for research assessment as both a senior researcher and university manager. Presentation 1: "Providing a Library Metrics Service: a perspective from an academic library within an Australian University" by Dr. Amberyn Thomas, Manager, Scholarly Publications, University of Queensland, Australia. Presentation 2: "Library Research Services at the University of Leicester, UK" by Ian Rowlands, Research Services Manager and University Bibliometrician, University of Leicester. Presentation 3: "Research Connection: Expertise to Advance Your Success" by Alexa Mayo, MLS AHIP, Health Sciences and Human Services Library, University of Maryland, Baltimore. Presentation 4: "Bibliometric Research Services - an iSchool Dean's Perspective" by Ronald L. Larsen, Dean and Professor, School of Information Sciences, University of Pittsburgh. The program for the event and a recording of the presentations are also included.

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Details

Item Type: Conference or Workshop Item (Other)

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Contribution	Name	Email	ORCID
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Title: Bibliometrics Seminar

Status: Unpublished

Abstract: On 22 May 2014, the University Library System, University of Pittsburgh, held a Bibliometrics Seminar, a program detailing several research library service models for support of research evaluation and assessment. Three of the featured speakers--from academic libraries in the USA (Mayo), the UK (Rowlands), and Australia (Thomas)--discuss the development and operation of such services in their organizations, noting the drivers for development, the process of setting up the service, and the impact of the service on both the library and the institution. A faculty colleague (Larsen) talks about his needs for research assessment as both a senior researcher and university manager. Presentation 1: "Providing a Library Metrics Service: a perspective from an academic library within an Australian University" by Dr. Amberyn Thomas, Manager, Scholarly Publications, University of Queensland, Australia. Presentation 2: "Library Research Services at the University of Leicester, UK" by Ian Rowlands, Research Services Manager and University Bibliometrician, University of Leicester. Presentation 3: "Research Connection: Expertise to Advance Your Success" by Alexa Mayo, MLS AHIP, Health Sciences and Human Services Library, University of Maryland, Baltimore. Presentation 4: "Bibliometric Research Services - an iSchool Dean's Perspective" by Ronald L. Larsen, Dean and Professor, School of Information Sciences, University of Pittsburgh. The program for the event and a recording of the presentations are also included.

Date: 22 May 2014

Access Restriction: No restriction; The work is available for access worldwide immediately.

Patent pending: No

Event Title: Bibliometrics Seminar

Event Location: University Library System, University of Pittsburgh

Event Dates: 22 May 2014

Event Type: Other

Institution: University of Pittsburgh

Refereed: No

Schools and Programs: School of Information Sciences > Information Science
University libraries > University Library System

Date Deposited: 23 May 2014 09:59

Last Modified: 04 Jun 2014 15:43

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SCHOLARLY COMMUNICATION AND PUBLISHING LUNCH AND LEARN TALK #8: USING BIBLIOMETRIC (PUBLICATION AND CITATION) INDICATORS TO DEMONSTRATE IMPACT

Webster, Berenika M and **Kear, Robin** (2014) *Scholarly Communication and Publishing Lunch and Learn Talk #8: Using Bibliometric (Publication and Citation) Indicators to Demonstrate Impact.* In: Scholarly Communication and Publishing Lunch and Learn Talks, 20 February 2014, Pittsburgh, PA, USA. (Unpublished)

This is the latest version of this item.

Microsoft PowerPoint - Presentation
Download (18Mb)

Abstract

The February 2014 Scholarly Communication and Publishing Lunch and Learn Talk focuses on bibliometrics, giving an overview the evolution of metrics, current sources for metrics, and guidance on how library staff can assist faculty with understanding individual, journal, and institutional impact through bibliometrics.

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Corporate Creators: Office of Scholarly Communication and Publishing, University Library System, University of Pittsburgh

Title: Scholarly Communication and Publishing Lunch and Learn Talk #8: Using Bibliometric (Publication and Citation) Indicators to Demonstrate Impact

Status: Unpublished

Abstract: The February 2014 Scholarly Communication and Publishing Lunch and Learn Talk focuses on bibliometrics, giving an overview the evolution of metrics, current sources for metrics, and guidance on how library staff can assist faculty with understanding individual, journal, and

SPEC Kit 346: Scholarly Output Assessment Activities · 99

institutional impact through bibliometrics.

Date: 20 February 2014

Access Restriction: No restriction; The work is available for access worldwide immediately.

Patent pending: No

Series Name: Scholarly Communication and Publishing Lunch and Learn Talks

Number: 8

Event Title: Scholarly Communication and Publishing Lunch and Learn Talks

Event Location: Pittsburgh, PA, USA

Event Dates: 20 February 2014

Event Type: Other

Institution: University of Pittsburgh

Refereed: No

Related URLs: Publisher

Additional Information: The eighth in a series of Lunch and Learn Talks for colleagues of the University Library System, University of Pittsburgh. Most talks include a "toolbox tip" on best practices for library colleagues to use when working with the Pitt community. Links to recordings of talks are provided when available.

Schools and Programs: University libraries > University Library System

Date Deposited: 26 Feb 2014 11:59

Last Modified: 31 Mar 2014 12:06

Available Versions of this Item

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  - Scholarly Communication and Publishing Lunch and Learn Talk #18: Authors' & Other Creators' Rights. (deposited 29 Jan 2015 17:09)
  - Scholarly Communication and Publishing Lunch and Learn Talk #17: Lessons from OpenCon and OpenEd. (deposited 05 Dec 2014 14:13)
  - Scholarly Communication and Publishing Lunch and Learn Talk #14: Traditional Scholarly Peer Review. (deposited 04 Dec 2014 19:14)
  - Scholarly Communication and Publishing Lunch and Learn Talk #16: Open Access Week 2014--What You Need to Know. (deposited 14 Oct 2014 12:22)
  - Scholarly Communication and Publishing Lunch and Learn Talks #15: Innovations in Peer Review. (deposited 14 Oct 2014 12:14)
  - Scholarly Communication and Publishing Lunch and Learn Talk #13: Open Educational Resources and Open Textbooks. (deposited 22 Jul 2014 17:13)
  - Scholarly Communication and Publishing Lunch and Learn Talk #12: Kickstarting Open Access Week 2014. (deposited 23 Jun 2014 14:44)
  - Scholarly Communication and Publishing Lunch and Learn Talk #11: The ULS Open Access Author Fee Fund. (deposited 15 May 2014 15:13)
  - Scholarly Communication and Publishing Lunch and Learn Talk #10: SPARC and the Library Publishing Coalition. (deposited 17 Apr 2014 15:25)
  - Scholarly Communication and Publishing Lunch and Learn Talk #9: Using Altmetrics to Demonstrate Scholarly Impact. (deposited 31 Mar 2014 12:05)
  - Scholarly Communication and Publishing Lunch and Learn Talk #8: Using Bibliometric (Publication and Citation) Indicators to Demonstrate Impact. (deposited 26 Feb 2014 11:59)**[Currently Displayed]**
  - Scholarly Communication and Publishing Lunch and Learn Talk #7: Copyright and Other Intellectual Property Resources. (deposited 22 Jan 2014 15:09)
  - Scholarly Communication and Publishing Lunch and Learn Talk #6: Creative Commons Licenses. (deposited 22 Jan 2014 15:08)
  - Scholarly Communication and Publishing Lunch and Learn Talk #1: ULS Journal Publishing -- Why We Do It. (deposited 22 Jan 2014 14:48)
  - Scholarly Communication and Publishing Lunch and Learn Talk #2: ULS Journal Publishing -- Under the Hood. (deposited 22 Jan 2014 14:48)
  - Scholarly Communication and Publishing Lunch and Learn Talk #3: The Public Knowledge Project and the ULS. (deposited 11 Dec 2013 10:57)
  - Scholarly Communication and Publishing Lunch and Learn Talk #4: What's new in OA? -- Open Access Week 2013 Kickoff. (deposited 11 Dec 2013 10:56)
  - Scholarly Communication and Publishing Lunch and Learn Talk #5: OASPA (Open Access Scholarly Publishers Association) and the ULS. (deposited 11 Dec 2013 10:54)

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USING BIBLIOMETRIC (PUBLICATION AND CITATION) INDICATORS TO DEMONSTRATE IMPACT

Robin Kear and Berenika M. Webster
ULS Lunch and Learn
February 20, 2014

1

OUTLINE

- Evolution of Metrics; Caveats
- Current Sources of Metrics
- Library can assist faculty with understanding:
  - individual impact
  - journal impact
  - institutional impact
- Discussion

EARLY METRICS

- Counting outputs
  - 3rd century BC – number of items held in the Great Library of Alexandria was 490,000
  - In 1837 Royal Library in Paris held 620,000 and public libraries in the US – 1,294,000
  - In 1841 numbers of volumes in libraries were normalized by population (Munich 750 volumes per 100 people; Florence – 313; Paris – 143 and London – 20)
- Counting usage, incl. collections development
  - In 1874 an article claimed that in American public libraries ¾ of the circulation was "sensational food" (popular fiction) and only ¼ to "literary food"
  - 1927 Gross and Gross from Pomona College analyzed references in one volume of *Jln of Am Chem Soc* and recommended a list of 22 journals (12 non-English) to become a core of the college chemistry collection

EARLY METRICS

- Measuring scientific workforce and its impact on scientific development *(Cattel, 1906)*
- Measuring civilizational development through volume of published outputs *(Humle, 1923)*
- Mapping scholarly disciplines by analyzing citation patterns *(Fussler, 1948)*
- "Measuring science" using scientific tools *(DeSolla Price, 1963)*

EVOLUTION OF METRICS

Eugene Garfield's "association of ideas index"
- Information retrieval
- Classification and indexing
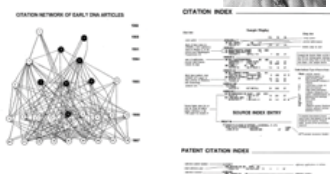
EVOLUTION OF METRICS

Sociology of science and the Matthew effect

For whosoever hath, to him shall be given, and he shall have more abundance: but whosoever hath not, from him shall be taken away even that he hath

(Matthew xii.7)

1

Using Bibliometric (Publication and Citation) Indicators to Demonstrate Impact (slides)
http://d-scholarship.pitt.edu/20647/1/Bibliometrics_Seminar_Feb2014_DSchol.ppt

EVOLUTION OF METRICS

- Research evaluation
  - Individual researcher
  - Research institutions
  - Funding institutions
  - Policy makers
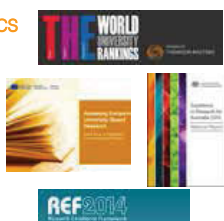
CAVEATS

- Proxy for academic impact only
  - what about social, economic, environmental?
- Not suitable for all disciplines
- Lagging indicator
- May underrepresent performance of ECRs

CURRENT SOURCES OF BIBLIOMETRIC DATA

CURRENT SOURCES OF BIBLIOMETRIC INDICATORS

OTHER
•Commercial
  - Academic Analytics (at PITT)
  - Digital Measures
  - Elements from Symplectic
  - AVIDAS (acquired TR)
  - Pure (acquired by Elsevier)
•Open Source
  - Vivo
  - Publish or Perish

OUR LIBRARY CAN ASSIST FACULTY WITH…
Individual Impact

Advising on tools available to track publications and citations (sources of data, setting profiles, etc.)

Identifying relevant metrics (IF or h-index?)

Providing context to these metrics (baselines and normalizations)

Advising on how to apply metrics in various contexts (on grant proposals, tenure applications)

CREATING PROFILES

2

SIMPLE INDICATORS –
ALWAYS NEED CONTEXT

- Number of publications

- Number of citations

- Citations per publication (mean and median)

- % not cited

- h-index and variants

WHAT A RESEARCHER MAY SAY ABOUT
THEIR IMPACT… (WITHOUT CONTEXT)

I have 35 refereed journal articles, of which 33 are indexed by Web of Science. These articles have received 230 citations, giving an average citation per (indexed) paper of 7 (source: WoS, 01/14).

Of my 33 indexed journal articles, only 3 articles have not been cited by others (9% not cited), and these were all published in 2013.

My h-index based on these indexed papers is 10 (source: WoS, 02/14).

CONTEXT CAN BE PROVIDED BY USING

- Baselines
  - Impact relative to discipline (average)
  - Impact relative to journal (average)
- Ranking
  - Publications in top 0.1%, 1%, 5% or 10% of distribution
- Normalization by discipline, publication year and document type

---

**BASELINES AND RANKINGS –
EXAMPLES OF TOOLS**

WHAT A RESEARCHER MAY SAY ABOUT
THEIR IMPACT…(WITH MORE CONTEXT)

I have 35 refereed journal articles, of which 33 are indexed by Web of Science. These articles have received 230 citations, giving an average citation per (indexed) paper of 7 (source: WoS, 01/14).

15 of these articles exceed the expected citation rates for their respective publication years, and 5 articles are in the top 10% by citations for my field. Moreover, My 2006 Cell Pigmentation paper placed in top 0.1% of all publication in its field (source: Essential Science Indicators, 01/14)

My h-index based on these indexed papers is 10 (source: WoS, 02/14). I have 4 papers (A, B, C, D) with more than 20 citations and 1 paper (E) with 209 citations (WoS, 02/14). I also have an additional 3 papers not indexed by WoS, with 29 citations based on Scopus data (02/14).

**OUR LIBRARY CAN ASSIST FACULTY WITH…
Journal Impact**

Which journal to publish in

Identifying journals with the best impact

Providing relevant and cost-effective collections for researchers

Providing more context to individual impact

3

4

Using Bibliometric (Publication and Citation) Indicators to Demonstrate Impact (slides)
http://d-scholarship.pitt.edu/20647/1/Bibliometrics_Seminar_Feb2014_DSchol.ppt
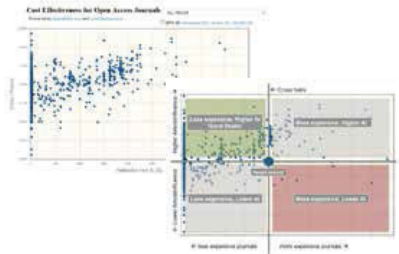
SNIP - Source Normalized Impact per Paper

Google Scholar – Journal Metrics

WHAT A RESEARCHER MAY SAY ABOUT THEIR IMPACT…(WITH CONTEXT AND JOURNAL METRICS)

I have 35 refereed journal articles, of which 33 are indexed by Web of Science. These articles have received 230 citations, giving an average citation per (indexed) paper of 7 (source: WoS, 01/14). Ten of these citations were in journals from the top Quartile for the field. Three of these citations are in journals with the highest impact factor for the field. (source: JCR, 01/14)

15 of these articles exceed the expected citation rates for their respective publication years, and 5 articles are in the top 10% by citations for my field. Moreover, My 2006 Cell Pigmentation paper placed in top 0.1% of all publication in its field (source: Essential Science Indicators, 01/14). The journal has a top SNIP score for the field (source: CWTS, 02/14)

My h-index based on these indexed papers is 10 (source: WoS, 02/14). I have 4 papers (A, B, C, D) with more than 20 citations and 1 paper (E) with 209 citations (WoS, 02/14). I also have an additional 3 papers not indexed by WoS, with 29 citations based on Scopus data (02/14) [include Journal Analyzer chart for the 4 papers.]

OUR LIBRARY CAN ASSIST THE UNIVERSITY WITH…Institutional Impact

Providing briefing notes on
University rankings and benchmarking (region, country, global, by discipline)
Nature and *Science* publications (e.g. Jiao Tong university rankings component)

Providing reports on collaborations

Providing data for school reviews and major grant applications

HOW GOOD IS MY RESEARCH IN AN AREA COMPARED TO OTHERS?
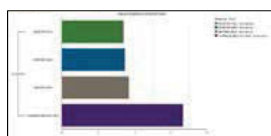
WHAT ARE THE AREAS OF STRENGTH IN MY INSTITUTION?

RELATIVE SIZE OF DISCIPLINES

RELATIVE IMPACT OF DISCIPLINES

5

MODELING RESEARCH IMPACT PROFILE OF A SET OF DOCUMENTS

HOW GOOD IS MY SCHOOL COMPARED TO OTHERS?
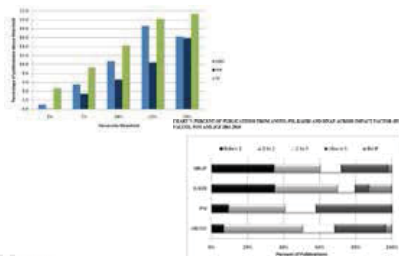
WHO DO WE COLLABORATE WITH? WHAT IS THE IMPACT OF THESE COLLABORATIONS?

Thank you!

http://pitt.libguides.com/bibliometrics

Researcher Statement: "*My work is multi-disciplinary, spanning biochemistry, biophysics and oncology.....*"

Evidence:

• Analyze your WoS articles by WoS subject category to see if this is evidenced in your research output

Resulting Statement: "34% of my journal articles are in the WoS Subject Area of Biochemistry and Molecular Biology, with 29% in Biophysics and 16 % in Oncology (WoS Subject Areas, 02/14)."

Researcher Statement: "*I am a world-leader in the field…*"

Evidence:

• Are you listed as a highly cited scientist in ESI?
• Do you have any papers "highly cited" in ESI?
• Do you have any "highly cited" papers identified as being "core papers" in an area of relevance to the application?
• How many of your papers rank highly in your "topic" for any of the years of interest to the application (say last 5)?
• Where do your journals rank?

6

Introduction to Altmetrics

Linda M. Galloway, MLIS
Librarian for Biology, Chemistry and Forensic Science
Syracuse University Library, Syracuse, NY

Janet Pease, MLS
Associate Librarian
Syracuse University Library, Syracuse, NY

Anne E. Rauh, MA
Engineering and Computer Science Librarian
Syracuse University Library, Syracuse, NY

Introduction to Altmetrics for STEM Librarians,
Science & Technology Libraries, in review

What are Altmetrics??

"the study of scholarly impact measures based on activity in online tools and environments" (Priem, Groth, and Taraborelli 2012

citable and accessible **products not limited to publications**, data sets, software, patents, and copyrights ("Grant Proposal Guide, Chapter II" 2013)

Scholarly Metrics as a proxy for Scholarly Influence…

Scholarly Metrics as a proxy for Scholarly Influence…

Susan Parks
Assistant Professor of Biology, Syracuse University
Bioacoustics
Verified email at syr.edu
Homepage

Short-and long-term changes in right whale calling behavior: the potential effects

Quantifying Scholarly Output

via Citation Metrics

Number of Publications
Citations to Publications
Relative influence of Publications

Traditional Tools

Evaluating Journals

- Impact Factor – Journal Citation Reports
  - Avg. time articles from a journal (past 2 yrs.) are cited in past year.
  - Web of Science indexed journals & data
- SCImago Journal & Country Rank
  - Based on Scopus Data, 1996-
  - Uses GooglePage Rank algorithim
  - Citable increments include past 3 years
  - Open Access

Note: there are other indices and measures available within these resources.

1
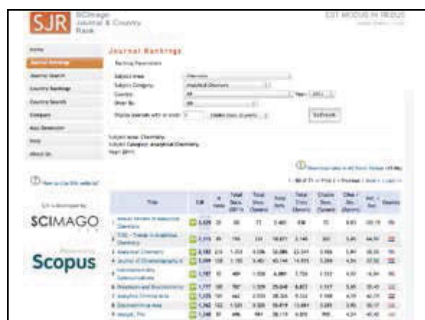
Traditional Tools
Article/Author Level Metrics
- Citations to an individual article or body of work
  - Web of Science
  - Scopus
  - Google Scholar

- *h*-index
  - measures both the productivity and impact of the published work
  - Number of an author's papers that have been cited at least *h* times by other publications

Comparisons

	Times cited	H-Index
Scopus	135	7
Web of Science	85	11
Google Scholar	279	10

This chart illustrates reporting differences. Exercising as much consistency as possible, the same author was profiled (11/2012) in each resource. The varied results are displayed above.

Limitations to Traditional Metrics

- Take a long time to accumulate
- STEM focused
- Often behind pay walls
- Measure influence narrowly
- Don't capture a publication's impact or influence in emerging forms of scholarly communication

altmetrics

Measure diverse impacts from articles, datasets, blog posts, slide shows, etc.

Beyond citation counts!
Readership
Views
Saves
Downloads
Scholarly (or popular) Buzz

What *can* be measured?

"Evidence of Use" – http://impactstory.org

- # of Tweets
- # of "Saves" in online reference managers
- Scholarly (and popular) blog interest and activity
- Activity in social networking platforms, tools
- And…

2

Meaningful Interactions

Altmetrics measures diverse impacts from articles, datasets, blog posts, slide shows, etc.

	What is tracked??
CiteULike	
Delicious	
F1000	Discussions
GitHub	Saves
Mendeley	Citations
SlideShare	Recommendations
Twitter	Downloads
Zotero	Copies

Altmetric Tools
track readership & influence

CiteULike permits users to store, organize and share scholarly papers

F1000 is a subscription-based recommendation service for curated articles in biology and medicine.

Google Scholar Citations is a service that allows authors to track their publications and influence using Google Scholar metrics.

Altmetric Tools
track readership & influence

Mendeley is a free reference manager and social network that was recently acquired by Elsevier. Mendeley is described as "one of the world's largest crowd-sourced research catalogs"

Zotero is a robust and growing citation management and sharing resource. Collaborators can share libraries of references, etc.

Make Sense of the Diversity of Research Outputs

Use an aggregator!

Harvest data
Automatic updates
Showcase scholarly influence

Put it all together…
with Altmetric Aggregators

ImpactStory, aggregates data from research products including articles, datasets, blog posts, PowerPoint presentations and more; free, open source and open access

Altmetric.com Subscription business solution that collects data about an individual article and supplies this data to publishers who present the info. to readers & authors.

Plum Analytics commercial product - measures influence using five categories; usage, captures, mentions, social media, and citations. Marketed to libraries.

ImpactStory

3

Images: blog.impactstory.org, chemconnector.com
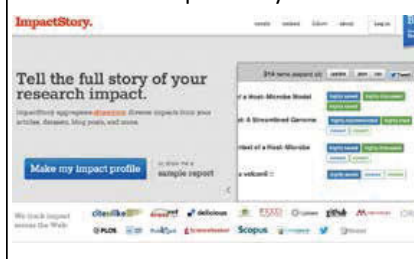
Engaging Constituents

- Don't assume anyone knows anything about altmetrics
- Begin by engaging new scholars
- Explain limitations of both traditional citation metrics & altmetrics
- Demonstrate the power of a Google Scholar Profile, institutional profile, and an ImpactStory Profile

Scholars' Engagement with Social Media

- Important to maintain and manage an online presence
- Outreach to the public – broader impacts criteria – required by some funding agencies
- Mentions in social media seem to lead to enhanced use of publications
- Dizzying array of social media tools

Valid data = Valid metrics

- Accurate attribution is essential!
- Scholarly authors are assigned Scopus Author Identifiers, Web of Science Researcher ID's, etc.
- Scholars can claim and make public their Google Scholar profile
- Scholars can (and should) register for a unique ORCID number

ORCID

Open Researcher Identifier

Free service that assigns a unique number to each author and links other identification schemes.

Encourage researchers to use consistent naming conventions and register for an ORCID ID!

ORCID
Connecting Research
and Researchers

Problem: author disambiguation

Joan V. Dannenhoffer
Syracuse University

John F. Dannenhoffer III
Syracuse University

Joanne M. Dannenhoffer
Central Michigan University

Joanne V. Dannenhoffer
M.D. May 2013

John F. Dannenhoffer
PhD Candidate, Univers...

Databases see all of these people as:
J Dannenhoffer
JV Dannenhoffer
JF Dannenhoffer
JM Dannenhoffer

4
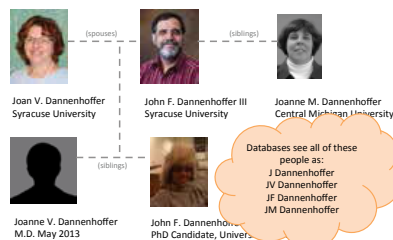
Why care?

Metrics and their relationship to social media:

- Add value to traditionally published content
  - Crowdsourced peer review
  - Expose questions and comments
  - Enhance worth
- Increase readership
- Appear to follow the pattern of traditional metrics

Thank you!!

Linda Galloway
Janet Pease
Anne Rauh
Syracuse University Library

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5

Guides Home

Yale UNIVERSITY LIBRARY

Research Impact   **Admin Sign In**

| Getting Started | Measuring your impact | Broadening your impact | Tools | Background | Workshops |

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Upcoming Workshops

- **Your Research Impact**

  Date: Thursday, May 14, 2015
  Time: 5:00pm - 6:00pm
  Location: 17 Hillhouse - 07
  Campus: Science Hill
  Research impact is a ubiquitous term in academia, and it informs everything from how to write a grant to how you approach marketing yourself as an academic to how a faculty member compiles their dossier.

  In this workshop, we will take a closer look at the research impact and scholarly communication environment. This workshop will provide a broad overview, with plenty of time for questions and discussion. Topics include:

  - Specific metrics that are used for evaluation, such as the h-index and its derivatives, the Impact Factor, and alternative metrics for nontraditional research products.
  - How to use databases to discover information about people and organizations (they're not just for papers!).
  - Best practices for working on your own impact goals, including the use of ORCID, the Becker Model, and research profile services.

  The 17 Hillhouse room 07 classroom is on the lower level of the 17 Hillhouse building. After 5 PM, the building requires a Yale ID for entry.

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Comments (0)

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Job Descriptions

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ABOUT US   COMMUNITY   EVENTS   RESOURCES   GET INVOLVED

Resources > Job Board > Scholarly Communications Librarian

Scholarly Communications Librarian

Posting Date: Sunday, December 21, 2014

Closing Date: Wednesday, January 14, 2015

Posting Organization: Florida State University

Location: Tallahassee, FL

Link: https://jobs.fsu.edu

Department

The Scholarly Communications Librarian manages an active program of education, training, advocacy, support and information sharing on topics related to the sharing and barrier-free access of scholarly research products. The librarian raises campus awareness of trends in scholarly publishing, including open access to the scholarly record, alternative metrics for measuring research impact, and copyright and fair use. Additionally, this position will be an integral part of FSU Libraries digital scholarship program, and will report to the Digital Scholarship Coordinator.

Responsibilities
* Manage development and growth of DigiNole Commons, FSU's institutional repository
* Monitor advancements in scholarly communication, open access, institutional repositories, and related legislative and funding initiatives, and communicate their implications to campus stakeholders
* Maintain and build collaborative partnerships with research and administrative units on campus
* Member and support person for the Faculty Senate Library Committee Scholarly Communication Task Force
* Development and implementation of an Open Access Policy
* Manage open access fund, and explore future mechanisms for funding open access

* Liaison to the Library Publishing Coalition and Coalition of Open Access Policy Institutions
* Exploring related research topics including: measurement and impact of scholarship, open peer review, data management, new publication platforms, digital tools for scholarship, etc.
* Manage the hosting and support for University Libraries journal publishing partnerships
* Partner with library departmental liaisons to implement strategies for including faculty and student work in DigiNole Commons
* Serve as a library resource on copyright, fair use and grants compliance, especially related to publishing

Qualifications
* ALA-accredited masters degree (awarded or near complete);
* Previous experience in an academic library setting is desirable;
* A strong public service orientation;
* A high degree of facility with relevant technologies and systems;
* Demonstrated knowledge of trends and best practices in scholarly communications across a variety of disciplines;
* Knowledge and experience in copyright law as it relates to fair use and library exemptions, new modes of scholarly communication, open access, authors* rights, and use of intellectual property;
* Excellent oral, written, and interpersonal communications skills.
* Ability to work effectively with faculty, students, and staff in a team environment;

Preferred
* Minimum two years of relevant library experience;
* Coursework or experience in digital scholarship, scholarly communications and/or digital humanities;
* Familiarity with repository platforms (Digital Commons, Islandora)

Helpful
The successful candidate will serve as a resource and advocate for issues that promote availability of scholarly intellectual resources. S/he will develop, implement, and assess an educational program; work with subject liaison librarians to promote knowledge about open access support to academic departments, and to assist faculty with issues related to their authored content; promote the use and utility of DigiNole Commons, FSU's institutional repository, and good research practices in a digital environment.

The Scholarly Communications Librarian serves as the Libraries' resource on issues related to intellectual property and its use in research and teaching, including: drafting and reviewing policies, guidelines, contracts

and license agreements; serving as liaison to campus offices on intellectual property-related issues; analyzing copyright status and risk for digital publishing; and maintaining current information on use of copyrighted material.

The Scholarly Communications Librarian will also monitor and stay current in requirements for open access, and will develop library policies and procedures to support researchers in research compliance. Related areas of responsibility could include: the development of campus open access policies, models for open access publishing and open access financing, the role of peer review and alt-metrics in publishing, codes of research practice, and large-scale scholarly communication projects (Ex. SCOAP3, COAPI, Library Publishing Coalition).

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University Information
Located in beautiful Tallahassee, Florida's capital city, a growing community with a population of more than 357,000, the Florida State University, a public, coeducational institution of the 11-member State University System of Florida, has an enrollment of over 40,000 students. The Library system includes ten libraries. Campus libraries have combined volume holdings totaling over 3 million volumes. The Library is a member of ARL, ASERL, CRL, OCLC, and Lyrasis. For more information about the Florida State University Libraries, see our home page at:
http://www.lib.fsu.edu/

Anticipated Salary Range
Minimum base salary is $45,000. Offer commensurate with qualifications and experience.

UNIVERSITY OF MASSACHUSETTS
CAMPUS: *Amherst*

JOB DESCRIPTION

OFFICIAL TITLE: *This is the official title of the position.*

Librarian V

FUNCTIONAL TITLE: *This is the in-house title by which the position may be known. A functional title is usually a more descriptive title than the official title and may be required to identify very specific kinds of work. This title may be used in signing all correspondence.*

Scholarly Communication and Special Initiatives Librarian

GENERAL STATEMENT OF DUTIES: *Please provide a brief overview of the general functions of this position. Specific details of duties should be reserved for the* Examples of Duties *section.)*

Coordinate scholarly communication activities for the University Libraries by providing leadership and education to the university community about these issues and their impact on the nature and conduct of scholarly inquiry. Work cooperatively and collaboratively with the Director of Libraries to conceptualize, actualize, and assess special initiatives. Investigate and promote the Library's involvement and position with various campus and consortial entities. Work with the appropriate parties, developing, scheduling, promoting and implementing library initiatives. Design and conduct programs as needed.

SUPERVISION RECEIVED: *Please indicate the title, but not the name, of the administrative employee or employees responsible for supervision or direction of work; describe the divergent extents of authority of each, indicating the degree, priorities, and relationships of the supervision or direction, which could range from close supervision to supervision with considerable freedom.*

Report to the Director of Libraries who reviews performance for effectiveness and conformance with established policies, but have substantial independent responsibility without immediate supervision.

SUPERVISION EXERCISED: *Using descriptive non-numerical terms, identify the scope of supervision, training or direction exercised (i.e., whether the supervision is over a few employees, a small number of employees, a large number of employees, etc.); also, describe the degree of supervision, indicating whether close supervision or general direction is involved, and categorize the physical conditions under which the supervision is given, such as in a laboratory or an office. Supervision of student employees should not be included in this section, but may be listed under* Examples of Duties, *if applicable.*

EXAMPLES OF DUTIES: *Please list and briefly describe several of the duties and responsibilities typically performed and assumed in this position. This list should not be restrictive but should be descriptive in such a manner as to provide concrete information representing examples of the actual work as well as the level of responsibility for the work being performed.*

1. Coordinate the design and shepherd to creation a robust and innovative institutional repository system in the University Library. Monitor project progress and evaluate results. Advise management on how to make optimal use of system features.
2. Engage units across the campus in the pursuit of strategic scholarly communication initiatives including the acquisition, management, and preservation of digital assets. Advocate use of technology for scholarly communication to faculty, staff, administrators, the public and academic collaborators.
3. Play an essential role with the integration of scholarly publishing technologies and processes with digital library development, especially related to repository developments. Oversee the development of scholarly communication applications with the development of other library applications.
4. Conceptualize, actualize, and assess special initiatives in coordination with the Director of Libraries. Investigate and promote the Library's involvement and position with various campus and consortia entities. Work with the appropriate parties, developing, scheduling, promoting and implementing library initiatives. Design and conduct programs as needed.

5. Provide consultation on University policies and legal and regulatory issues related to intellectual property and sponsored research as they relate to the university's scholarly communication initiatives.
6. Chair the Repository Advisory Group and participate in other Repository Committees ex officio.
7. Serve as a member of the Library's Senior Administrative Group
8. Maintain contacts with appropriate on-campus and off-campus agencies in order to maintain current on new developments in appropriate technologies. Collaborate with library departments, the University of Massachusetts Press, and campus centers focused on research, digital libraries, and scholarly publishing.
9. Develop and maintain appropriate reports, documentation and records.
10. Work cooperatively and collaboratively with other staff to coordinate scholarly communication education and training with programs undertaken by the Libraries and its various collaborative partners.
11. May be asked to represent the U Mass Amherst Library at selected meetings and conferences.
12. Perform other related duties as assigned.

QUALIFICATIONS: Please indicate in a general way the knowledge, abilities, skills, education and experience necessary for any individual to assume this position. It is not the objective of this section to list any one person's specific personal traits and training. It is important to indicate, also, what degree of competence would be required (i.e., considerable education, extensive experience, working knowledge, etc.) to perform the duties and assume the responsibilities typical of this position.

1. Master's degree in library science – or equivalent degree – from a program accredited by the American Library Association, or its appropriate equivalent in librarianship from another country, or have appropriate equivalent experience.
2. At least ten years of experience in an academic and/or research library environment. Substantial experience working within complex library systems. Familiarity with the emergence of Institutional Repositories, including issues, policy matters, and strategies for securing appropriate content and an understanding of the changing nature of the scholarly communication environment. Experience with networked information environments and familiarity with digital imaging and database creation.
3. Excellent organizational and communication (oral and written) skills. Demonstrated ability to work effectively with culturally diverse faculty, students, and staff.
4. Excellent interpersonal skills including ability to foster a collegial work environment that encourages change and innovation; and ability to interact effectively and work productively, collegially, cooperatively, and collaboratively with a variety of individuals and groups in a changing environment.
5. Demonstrated skills in project management, consensus building and problem solving. Demonstrated experience building coalitions and maintaining collaborative relationships.
6. Commitment to collaborative work environment, and ability to set and adjust priorities in a library embracing advanced information technologies, work under pressure, be thorough and accurate, follow tasks and projects through to completion, meet deadlines, and work independently.
7. Demonstrated ability to deal with ambiguity, change and innovation.

UNIVERSITY OF MASSACHUSETTS
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  Librarian V

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  Social Sciences Research Services Librarian

GENERAL STATEMENT OF DUTIES: *Please provide a brief overview of the general functions of this position.* Specific *details of duties should be reserved for the* Examples of Duties *section.)*
  Serve as library liaison academic departments. Provide library orientation and discipline-based information literacy sessions for assigned social science areas at all degree levels. Prepare user guides, tutorials, and other information resource tools as needed.   Offer appointment-based, in-depth research consultations. Provide point-of-need research assistance in-person, through phone, email, web and other technologies.   Provide collection support for assigned social sciences subjects. Analyze usage and collections data to help inform library-wide collection decisions.

SUPERVISION RECEIVED: *Please indicate the title, but not the name, of the administrative employee or employees responsible for supervision or direction of work; describe the divergent extents of authority of each, indicating the degree, priorities, and relationships of the supervision or direction, which could range from close supervision to supervision with considerable freedom.*
  Work under the general supervision of the head of Information Resources Management, and the functional supervision of the Coordinator, Acquisitions Unit. Be responsible to the Head of Research and Liaison Services for reference assignments.

SUPERVISION EXERCISED: *Using descriptive non-numerical terms, identify the scope of supervision, training or direction exercised (i.e., whether the supervision is over a few employees, a small number of employees, a large number of employees, etc.); also, describe the degree of supervision, indicating whether close supervision or general direction is involved, and categorize the physical conditions under which the supervision is given, such as in a laboratory or an office. Supervision of student employees should not be included in this section, but may be listed under* Examples of Duties, *if applicable.*
  None.

EXAMPLES OF DUTIES: *Please list and briefly describe several of the duties and responsibilities typically performed and assumed in this position. This list should not be restrictive but should be descriptive in such a manner as to provide concrete information representing examples of the actual work as well as the level of responsibility for the work being performed.*

1. Serve as a liaison to designated academic programs, departments and centers. Engage in direct communication with faculty and students to learn about the needs, activities and trends in assigned liaison areas. Communicate information to faculty and students about the Libraries' services and information resources that support their curricular, learning and research needs. Compile and assess information received to identify curricular and research support opportunities and to inform the development and assessment of library services and resources.
2. Provide instruction to support disciplinary research. Work to incorporate appropriate technology into all contexts. Design and teach course-related information literacy sessions and/or credit classes in a classroom or web-based environment.
3. Prepare user guides, tutorials, and other online learning tools to support instruction and research in the social sciences. Develop scripts to be used in creating these tools.
4. Provide in-depth reference and research consultation to faculty and students in designated social sciences subject areas and education.
5. Incorporate trends in scholarly communication and emerging technologies into instructional and research support services.
6. Support subject collections in a changing research environment by applying specialized knowledge to the

selection, evaluation, and maintenance of library resources in designated subject areas of the social sciences. Manage and expend allocated acquisitions funds in a prudent and timely manner, according to established guidelines.

7. Analyze and actively share usage and collections data to help inform library-wide collection decisions.
8. Provide point-of-need research assistance to library users in-person, through phone, email, web and other technologies.
9. Maintain current awareness of scholarly literature and publishing trends.
10. Represent the Library at appropriate, selected professional meetings and conferences as requested.
11. May be asked to work evening and weekend hours.
12. Perform other related duties as assigned.

QUALIFICATIONS: Please indicate in a general way the knowledge, abilities, skills, education and experience necessary for any individual to assume this position. It is not the objective of this section to list any one person's specific personal traits and training. It is important to indicate, also, what degree of competence would be required (i.e., considerable education, extensive experience, working knowledge, etc.) to perform the duties and assume the responsibilities typical of this position.

1. Master's degree in library science from an American Library Association-accredited library and information studies program.
2. Minimum of fourteen years of experience in an academic or research library, including some collection development responsibilities.
3. Educational background in the social sciences. Graduate (Advanced) degree in subject desirable.
4. Working knowledge of at least one foreign language.
5. Thorough knowledge of the methods used in performing library research. Knowledge of scholarly literature and publishing trends.
6. Thorough knowledge of reference and information sources in all formats, especially those relating to the social sciences.
7. Thorough knowledge of educational and research programs of the University, especially in social sciences.
8. Fluency with data analysis, including the ability to identify and analyze appropriate information related to the Libraries' students and faculty, the University, higher education as well as trends in information discovery and delivery.
9. Strong user-focused service model that is responsive to and anticipates the distinctive needs of faculty, students and staff.
10. Excellent communication skills, both oral and written; strong interpersonal skills; ability to work effectively in a team environment and independently and ability to work collaboratively with campus partners.
11. Demonstrated ability to prioritize, organize and accomplish assigned work and produce needed outputs in a timely, efficient and effective manner.
12. Ability to establish and maintain harmonious working relationships.

OFFICIAL POSITION CERTIFICATION
This is a complete and accurate description of this position.

_____   _____
  Date   **Signature--Supervisor**

_____   _____
  Date   **Signature--Director of Libraries**

_____   _____
  Date   **Signature--Staff Member**

**North Carolina State University Libraries
Vacancy Announcement**

Director, Copyright and Digital Scholarship

Between the mountains of the Blue Ridge and the shores of the Outer Banks lies North Carolina's Research Triangle of Raleigh, Durham, and Chapel Hill. One of the nation's premier concentrations of academic, corporate, and public research, the area combines moderate year-round temperatures, rolling hills, championship college athletics, and a rich diversity of cultural events. The Triangle consistently ranks high on lists of desirable American communities, including a recent rating by *Forbes* as the number-one place for business and careers and as one of *Money Magazine's* Best Big Cities. The North Carolina State University Libraries has been recognized as the first recipient of the Association of College and Research Libraries' *Excellence in Academic Libraries Award* for its teamwork, innovation, and continuous interaction with students and faculty to further the educational mission of NC State University. A major new science and engineering research library, the James B. Hunt Jr. Library, is under construction and expected to open in 2012/13. It will be the social and intellectual nexus for NC State's Centennial Campus, a research and advanced technology community that includes the colleges of Engineering and Textiles, a variety of science and technology research centers, and more than 130 companies and government agencies.

The NCSU Libraries invites applications and nominations for the position of **Director, Copyright and Digital Scholarship** to manage its Copyright and Digital Scholarship Center. The Center provides services, resources, and guidance for the university community in matters relating to the creation, dissemination, and use of knowledge. The emphasis is on fostering sustainable models of scholarly communication, providing guidance on copyright in teaching and research, and creating new forms of digital scholarship and access.

Responsibilities
The **Director, Copyright and Digital Scholarship** leads a dynamic program that engages faculty, staff, and students in initiatives to maximize the dissemination and impact of the university's scholarship and knowledge resources. In this highly visible position, the incumbent provides guidance to the NC State community on scholarly communication matters. The Director serves as a resource on local and national policy to help the university community stay informed and involved with the changing landscape for scholarly work and publication. The incumbent works in close consultation with the university's Office of General Counsel, Copyright Committee, Provost's office, and Distance Education and Learning Technology Applications unit (DELTA). He or she collaborates with colleagues throughout the Libraries, providing leadership for digital scholarship and publishing initiatives, and guidance on fair use and other copyright issues related to library collections and services. He or she participates in library planning and serves on library-wide and university committees, task forces, and teams. NCSU Librarians are expected to be active professionally and to contribute to developments in the field. Reports to the Associate Director for Collections and Scholarly Communication.

Qualifications
Required: ALA-accredited MLS or equivalent advanced degree in a relevant discipline (e.g., J.D.) Relevant professional experience, including experience with scholarly communication and research

dissemination. Knowledge of digital publishing and digital repositories as applied to the creation, dissemination, and use of digital information resources. Demonstrated expertise with relevant legal and regulatory issues associated with intellectual property and copyright. Demonstrated ability to represent the interests of the academy in scholarly communication issues. Knowledge of licensing issues as applied to library collections. Excellent oral and written communication skills; excellent interpersonal skills; and ability to work effectively with faculty, students, and academic administrators. A record of ongoing professional development and contribution.

Preferred: ALA-accredited MLS plus J.D. Experience writing proposals and participating in grant activities.

The University and the Libraries
Recognized as one of the nation's leading universities in science and technology, with strong programs in the humanities and social sciences, NC State offers degrees through the Colleges of Agriculture and Life Sciences, Design, Education, Engineering, Humanities and Social Sciences, Management, Natural Resources, Physical and Mathematical Sciences, Textiles, and Veterinary Medicine. As the largest academic institution in the state, NC State enrolls more than 33,000 students and offers doctoral degrees in 61 fields of study. The university is ranked 4th in industry research funding and 9th in total research expenditures among universities without medical schools. With more than 660 active patents, NC state is ranked 9th among U.S. universities in patent production, quality, and strength. NC State is a national leader in networking technologies and a charter member of the North Carolina Networking Initiative (NCNI), an Internet2 initiative with the most advanced operational networking system infrastructure in the nation.

The library system (**http://www.lib.ncsu.edu/**) consists of a central library and branch libraries for design, natural resources, textiles, and veterinary medicine. With a staff of 260+ FTE, the Libraries has more than 4 million volumes in its collection, acquires more than 62,000 print and electronic serials, and has a total annual budget of over $25 million, with approximately $9.5 million allocated to collections. The Libraries is the host site for NC LIVE (North Carolina Libraries for Virtual Education), a multi-type library initiative, making digital resources accessible to North Carolina residents.

The NCSU Libraries is a member of the Association of Research Libraries, the Digital Library Federation, the Coalition for Networked Information, the Scholarly Publishing and Academic Resources Coalition, the Council for Library and Information Resources, and the Center for Research Libraries. Duke University, the University of North Carolina at Chapel Hill, North Carolina Central University, and North Carolina State University form the Triangle Research Libraries Network (TRLN), with combined resources exceeding 14 million volumes and collections budgets totaling more than $30 million.

Salary and Benefits
The Libraries offers a highly competitive salary in recognition of applicable education and experience for this position. Librarians have non-tenure track faculty status (without levels of rank). Benefits include: 24 days vacation, 12 days sick leave; State of NC preferred provider medical insurance, and state, TIAA/CREF, or other retirement options. Additional and optional dental, life, disability, deferred compensation, and legal plans are offered. Tuition waiver program for all campuses of The University of North Carolina is available. More benefits information is available at http://www7.acs.ncsu.edu/hr/benefits/

Application process and schedule
Applications will be reviewed upon receipt; applications will be accepted until finalist candidates are selected. Candidates are encouraged to apply as soon as possible to receive full consideration. The

POSITION DESCRIPTION

HEALTH SCIENCES LIBRARIAN
SIU CARBONDALE
LIBRARY AFFAIRS

Appointment: Assistant/Associate Professor, full-time, 12-month, continuing (tenured or tenure-track)

Environment: Library Affairs provides comprehensive library services to the Southern Illinois University Carbondale population of 18,500 students in beautiful Southern Illinois. Morris Library, the primary facility, was completely renovated and reopened in 2009. The building currently features over 200 computers, laptops to borrow, 14 study rooms, and two computer classrooms. Two additional floors that will feature highly flexible, technology-rich, collaborative spaces are under construction and will open in 2014. The building houses nearly three million volumes, three and a half million microforms, and 43,000 currently-received periodicals and serials, as well as strong collections of online databases, maps, films, DVDs, and sound recordings. Morris Library is a selective U.S. Federal Depository Library and an Illinois State Depository Library. As the center for academic support services on campus, Morris Library hosts SalukiTech (technology and computer support), the University Honors Program, the Writing Center, Learning Support Services, Testing Lab, Math Lab, and Center for Teaching Excellence. Morris Library is a member of the Association of Research Libraries, Coalition for Networked Information, Consortium of Academic and Research Libraries in Illinois, Scholarly Publishing and Academic Resources Coalition, and Greater Western Library Alliance. Librarians at SIU Carbondale are faculty and are covered by collective bargaining.

Responsibilities:
Under the general direction of the Head of Reference and Instructional Services, the Health Sciences Librarian:

- Provides reference, instruction, and library services to the University community. Responsibilities include:
- Assists patrons at the Information Desk with research and reference questions, including limited nights and weekends
- Helps patrons to identify and locate library materials and resources using both print and electronic resources – in person, via email, or online
- Teaches the general use of the Library's resources and technology as appropriate
- Serves as the subject specialists and liaison to departments in the Health Sciences and other appropriate academic departments
- Provides formal and informal instruction in library usage for these departments
- Assists with subject-specific research queries in areas of expertise
- Serves as contact between Morris library and the School of Medicine's Medical Resource Center on the Carbondale campus
- Provides outreach services to off-campus students and faculty involved in all Distance Education programs
- Participates in the library's scholarly communication initiatives, including the population of the Institutional Repository
- Maintains service contributions to Library Affairs, the University, and the profession
- Continues to develop in librarianship and subject specialty through research contributions, conference and/or workshop attendance, and other educational activities
- Performs other appropriate duties

Required Qualifications:
- ALA-accredited master's degree in Library Science
- Familiarity with reference sources in an academic library
- Demonstrated skills in instruction and development of effective teaching materials
- Knowledge of or coursework in one of the Health Sciences
- Working knowledge of a wide variety of information technology applications and proficiency in the use of general and subject-specific print and electronic reference resources
- Demonstrated strong interpersonal and communication skills, both oral and written
- Ability to organize work and meet deadlines
- Interest and potential to meet established Library Affairs criteria for promotion and tenure, including professional service and published research

_____   _____

Incumbent   Date

_____   _____

Supervisor   Date

_____   _____

Dean, Library Affairs   Date

POSITION DESCRIPTION

SIU CARBONDALE
LIBRARY AFFAIRS

Title of Position: Lecturer (Science Librarian)

Appointment: Lecturer, full-time, 12 month, term, renewable, Non-Tenure-Track

Responsibilities: Under the general direction of the Associate Dean for Information Services and responsive to input from the Dean of Library Affairs , the Science Librarian provides reference, instruction, liaison, collection development, outreach, and general library services to the University community. Specific responsibilities include:

- Assists patrons at the Information Desk with research and reference questions, including limited nights and weekends. Provides general reference service via face-to-face, online, email, chat, phone, and consultation means.
- Instructs students and faculty in the use of library resources and technologies, as well as in information access, evaluation, and management in face-to-face and online settings as appropriate. Assists in the development of instructional curricula (including for credit and non-credit courses), online learning modules, web pages, user guides, and assessments.
- Serves as subject specialist and liaison to departments covering Science disciplines, providing formal and informal instruction in library research for these departments. Assists with subject-specific research queries in areas of expertise. Identifies opportunities for outreach and strategic partnerships with specific SIU departments based on expertise.
- Assists with student recruitment, orientation, and retention strategies.
- Selects monographs and recommends other resources for science disciplines. Participates in other collection development activities as needed.
- Participates in the library's scholarly communication initiatives, including the population of the Institutional Repository.
- Serves on library and university committees.
- Other duties and responsibilities as assigned.

Required Qualifications:

- ALA-accredited master's degree in Library Science (MLS) awarded by date of appointment.
- Bachelor's degree in a science or engineering discipline.
- Proficiency in the use of general and subject-specific reference resources and in conducting library research.
- Experience creating web-based guides and tutorials (e.g., LibGuides).
- Working knowledge of a wide variety of information technology applications (e.g., Microsoft Office) and databases.
- Excellent interpersonal and oral and written communication skills.
- Demonstrated strong organizational skills, including the ability to manage projects, and multiple tasks while meeting deadlines and solving problems in a complex and dynamic environment.
- A strong customer-service orientation.
- Demonstrated ability to work independently and collaboratively with diverse faculty, staff, and students in a rapidly-evolving, team-oriented environment.

Preferred Qualifications:

- Additional master's degree in a science or engineering discipline.
- Speaking, reading and writing knowledge of a second language.
- Experience working in an academic library.
- Teaching experience.
- Collection development experience.
- Familiarity with online learning management systems and tools.
- History of working with diverse populations and college students.
- Experience writing, obtaining, and managing grants.

_____   _____

Incumbent   Date

_____   _____

Associate Dean for Information Services   Date

_____   _____

Dean of Library Affairs   Date

POSITION DESCRIPTION

NATURAL SCIENCES LIBRARIAN
SIU CARBONDALE
LIBRARY AFFAIRS

Appointment: Assistant/Associate Professor, full-time, 12-month, continuing (tenured or tenure-track)

Environment: Library Affairs provides comprehensive library services to the Southern Illinois University Carbondale population of 18,500 students in beautiful Southern Illinois. Morris Library, the primary facility, was completely renovated and reopened in 2009. The building currently features over 200 computers, laptops to borrow, 14 study rooms, and two computer classrooms. Two additional floors that will feature highly flexible, technology-rich, collaborative spaces are under construction and will open in 2014. The building houses nearly three million volumes, three and a half million microforms, and 43,000 currently-received periodicals and serials, as well as strong collections of online databases, maps, films, DVDs, and sound recordings. Morris Library is a selective U.S. Federal Depository Library and an Illinois State Depository Library. As the center for academic support services on campus, Morris Library hosts SalukiTech (technology and computer support), the University Honors Program, the Writing Center, Learning Support Services, Testing Lab, Math Lab, and Center for Teaching Excellence. Morris Library is a member of the Association of Research Libraries, Coalition for Networked Information, Consortium of Academic and Research Libraries in Illinois, Scholarly Publishing and Academic Resources Coalition, and Greater Western Library Alliance. Librarians at SIU Carbondale are faculty and are covered by collective bargaining.

Responsibilities:
Under the general direction of the Head of Reference and Instruction Services, the Natural Sciences Librarian provides reference, instruction, and library services to the University community.
Responsibilities include:
- Assisting patrons at the Information Desk with research and reference questions, including limited nights and weekends
- Helping patrons to identify and locate library materials and resources using both print and electronic resources – in person, via email, or online
- Teaching the general use of the Library's resources and technology as appropriate
- Serving as the subject specialist and liaison to departments in the Natural Sciences and other appropriate academic departments
- Providing formal and informal instruction in library usage for these departments
- Assisting with subject-specific research queries in areas of expertise
- Participate in the library's scholarly communication initiatives, including the population of the Institutional Repository
- Maintaining service contributions to Library Affairs, the University, and the profession as appropriate
- Continuing to develop in librarianship and subject specialty through research contributions, conference and/or workshop attendance, and other education activities
- Performing other appropriate duties

Required Qualifications:
- ALA-accredited master's degree in Library Science
- Familiarity with reference sources in an academic library
- Demonstrated skills in instruction and development of effective teaching materials

- Knowledge of or course work in one of the Natural Sciences
- Working knowledge of a wide variety of information technology applications and proficiency in the use of general and subject-specific print and electronic reference resources
- Demonstrated strong interpersonal and communication skills, both oral and written
- Ability to organize work and meet deadlines
- Interest and potential to meet established Library Affairs criteria for promotion and tenure, including professional service and published research

_____   _____

Incumbent   Date

_____   _____

Supervisor   Date

_____   _____

Dean, Library Affairs   Date

Service Descriptions

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Transforming Scholarly Communication & Publishing

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SEARCH ➔

You want to publish, we want to help...

Scholarly publishing is undergoing fundamental transformations and the UB Libraries want to help you understand how these changes impact your scholarly endeavors. Here are some ways we may be able to assist:

- **Accurately measuring the the impact of your work**: librarians are available to assist you with using Web of Science, Harzing's Publish or Perish/Google Scholar, altmetrics, and other resources to capture a more complete picture of the impact of your scholarly output.

- **Archiving your work**: the UB Libraries can provide assistance with sustainable, long-term, online preservation of your work (articles, data, and other scholarly output).

UB FACULTY PUBLICATIONS

in *Web of Knowledge* RSS
in *Science Citation Index* RSS
in *Social Science Citation Index* RSS
in *Arts and Humanities Citation Index* RSS

PRESENTATION

Scholarly Publishing: Presentations

BLOGS

- **Alternative publishing outlets**: stay up-to-date on emerging and alternative publishing models like open access journals, e-books, open educational resources, and more.

- **Understanding copyright and author's rights**: legislation regarding federally funded research, public access mandates, and data sharing requirements.

Questions about Scholarly Communication issues? Give me a try!

A. Ben Wagner
Sciences Librarian
226 Capen Hall
Buffalo, NY 14260

(716) 645-1333
abwagner@buffalo.edu

Gobbledygook (Public Library of Science, Martin Fenner)

Dr. Fenner has for many years worked as medical doctor and cancer researcher at the Hannover Medical School Cancer Center in Germany.

The Scholarly Kitchen (Society for Scholarly Publishing)

Tag line is "What's Hot & What's Cooking in Scholarly Communications". Generally provides a more conservative or publisher-flavored viewpoint.

Peter Suber (SPARC)

One of the most followed open access advocate/educator holding many concurrent positions including the Director of the Harvard Open Access Project and Senior Researcher at SPARC.

University Libraries > Transforming Scholarly Communication & Publishing

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WHSCL Publication Analysis Service

WHAT: Citation-base analysis service or assistance compiling publications, citation counts, and other available data to advise, inform, and highlight key areas of impact. Validated publication and impact data is collected from one of the two major citation tracking databases, Web of Science or Scopus. Additional databases and/or impact metrics may be discussed but are not included in the provided analyses. Typical commissions include, but are not limited to the following data:

- *Number of Publications* for a given time frame, institution, or career
- *Citation Statistics* such as total citations, average citations per publication, and distribution of citations over years, institutions, etc.
- *H-index* or other comparative measures of visibility and impact
- *Researcher Profiles and Alerts* can be established for increased visibility, building bibliographies, publically available metrics, and future citation or other statistical notifications
- *Journal Impact Factors* and other metrics
- *Citing and Collaborative Fields* for each identified publication
- *Relevant and Potential Journals* for future submissions to increase publication visibility and impact.
- *Comparisons* can be provided across individuals, faculty ranks, subject areas, institutions, etc.
- *Benchmarking* graphs and analytics can be available by publication subject areas between fields and institutions.
- *Summarized reports* can reflect total individual, departmental, division, or unit publication output.

FOR WHOM: Each data analysis report or requested training can be focused around an individual researcher, research group, division, department, and/or school.

MOST USEFUL WHEN: Looking to identify areas of strength and weakness, areas of greatest impact, comparing publication impact, and highlighting potential areas of growth. Comparisons and benchmarking reports can reveal new areas of growth and collaboration.

REQUEST: Contact Life Sciences Informationist Kim Powell (krpowel@emory.edu) or use Ask A Librarian to request additional information. Please indicate specific areas of interest to be included in a report or training session.

Galter Health Sciences Library

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Metrics and Impact Core (MIC)

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The Metrics and Impact Core (MIC), housed in Galter Library, has expertise in bibliometrics, data visualization, continuous improvement, information systems and alternative metrics. The core provides extensive advisory services for researchers, groups or departments on topics such as:

- developing successful publishing strategies
- managing or tracking publications
- maintaining an impactful online identity
- measuring or assessing research impact by discipline
- communicating research impact to audiences

MIC uses a wide collection of resources, including Scopus, Web of Science, Google Scholar, NU Scholars, Journal Citation Reports, and more, to provide services and reports for:

- **Researchers or clinicians** to demonstrate impact of published works to promotion or tenure committees, or the impact of research studies to funding agencies when applying for funding
- **Research groups/institutions/departments** to discover how research findings are being used to promote science, or an overall view of research publications and outputs by a specific group

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Our upcoming Research Impact Guide will provide information on bibliometric analysis, alternative metrics, research impact analysis, information visualization, evaluation frameworks, and more. Also, check out our Galter Classes (http://galter.northwestern.edu/classes) page to learn more about or request courses.

For questions or inquiries on services, please contact:

Dr. Kristi Holmes (http://galter.northwestern.edu/contact/Kristi/Holmes), Core Director and Associate Director of Evaluation, NUCATS

Karen Gutzman (http://galter.northwestern.edu/contact/Karen/Gutzman),

✉ Contact Us!

Northwestern University

NUCATS
Clinical and Translational Sciences Institute

Impact and Evaluation Librarian

Methods and services

- **Advanced Bibliometric Analysis** - Provides an understanding of productivity and emerging indicators of impact. Ongoing analyses in MIC include tracking "hot" and "highly cited" papers for discipline-specific percentile ranking and assessment of productivity, recognition/influence, efficiency, relative impact and benchmarking.
- **Alternative metrics** - Enables characterization of dissemination and public engagement. This data supplements conventional bibliometrics and allows real-time social engagement data to be collected and monitored in a meaningful way for a broad array of research products.
- **Social Network Analysis (SNA) and data visualizations** - Facilitate an understanding of relationships between people, organizations, concepts, or services. SNA provides snapshots of programs, collaborations, resources, and services which can be used to describe, predict, and measure the effect of interventions.
- **Surveys** - Measure satisfaction, collaboration, effectiveness of training. Surveys may be utilized for post-consultation or service surveys; post-event surveys for training and workforce development events (courses, workshops, training events, online tutorials, seminars), and annual surveys on satisfaction, collaboration, and community engagement.
- **Micro-case studies & interviews** - Efficiently enable in-depth qualitative assessments using a modified CADTH framework [1] to facilitate effective and efficient case studies.

[1] Canadian Agency for Drugs and Technologies in Health (CADTH) (2014). Retrieved from http://www.cadth.ca/en/cadth/evaluation-reports (/exit?url=http%3A%2F%2Fwww.cadth.ca%2Fen%2Fcadth%2Fevaluation-reports)

Updated: February 25th, 2015 08:48

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Home › Classes and Consulting › Publishing and Evaluation Support

Publishing and Evaluation Support

The Scholarly Publishing specialists provide a variety of services and resources to assist faculty, investigators and students with publishing and evaluation needs.

For more information, please contact Cathy Sarli or Amy Suiter.

Publish & Disseminate

- Author Rights & Copyright
- Digital Commons@Becker
- Strategies for Authors
- WU Open Access Resolution

Track & Evaluate

- Author Profiles
- Publication Metrics
- Track Your Work: Who is Citing Your Work?
- What is the Impact of Your Work?

Comply

- Public Access Policies
  - NIH
  - Other Federal Agencies
  - Foundations, Charities and Organizations
- Reporting of Research Guidelines
- Responsible Conduct of Research

Publishing & Evaluation Services

Are you interested in alternative ways of disseminating your works? Do you need help with a grant application or biosketch? Do you have questions related to copyright?

PEOPLE AT BECKER LIBRARY

Cathy Sarli
Senior Librarian for Evaluation and Assessment Services
sarlic@wustl.edu

Amy Suiter
Scholarly Publishing Librarian
suitera@wusm.wustl.edu

SCHOLARLY COMMUNICATIONS AT WU

A joint site hosted by Becker Library and the Danforth Campus Libraries

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https://becker.wustl.edu/classes-consulting/specialized-expertise/publishing-evaluation-support

Find out more about the services we provide.

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Statistics

Total Visits

	Views
Tom Sawyer and the construction of value	56092

Total Visits Per Month

	October 2014	November 2014	December 2014	January 2015	February 2015	March 2015	April 2015
Tom Sawyer and the construction of value	74	42	43	43	28	19	0

File Visits

	Views
Tom Sawyer.pdf	51384
Tom Sawyer.pdf	7
Tom Sawyer.pdf.txt	2

Top country views

	Views
United States of America	17736
India	2389
United Kingdom	2363
Canada	1998
China	1874
Germany	1751
Spain	1474
Australia	1287
Russian Federation	1275
Brazil	1261

Top cities views

	Views
Singapore	837
New York	496
London	495

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Main Library / LibGuides / Impact Factors and Citation Analysis / Introduction

Impact Factors and Citation Analysis: Introduction

A guide to bibliometrics, journal impact factors, h-index, altmetrics, etc.

Enter Search Words | Search

| Introduction | Article Impact/Citation Analysis | Journal Impact | Researcher Impact | Institutional Impact | Altmetrics | Data Citation |

Measuring Scholarly Impact

Article/book impact: The value of particular works, such as journal articles, conference proceedings, and books, can be measured by the number times they are cited by other works and alternative metrics such as tweets, blog posts, likes, bookmarks, etc.

Journal impact: The importance of particular academic journals can be measured by the number of times their articles are cited and where they are cited.

Researcher impact: The success of particular researchers can be measured by the number of works they publish and the number of times their works are cited.

Institutional impact: The prestige of a department or area of research within an institution can be measured by the collective impact of its individual researchers compared to those at other institutions.

Alternatives & Controversies

Impact factors remain an important means of measuring research influence and dissemination, but they have recently have become controversial in their role in tenure decisions, e.g. DORA (Declaration of Research Assessement, sponsored by the Association of Cell Biology), which makes "recommendations for improving the way in which the quality of research output is evaluated" with less emphasis (or even no reliance upon) on journal metrics. The Declaration has had its critics as well--see Kent Anderson's post at the Scholarly Kitchen.

Let Us Help You Measure Your Impact

Individual Consultation

Interested in who is citing your work? Wondering what your h-index is?

We can show you how to track citations to your work, how to measure your personal research impact, and how to set up unique researcher IDs.

Individual or Departmental Reports

Preparing your tenure or promotion packet? Needing to assess your department's research performance?

We can run publication and citation reports for individual researchers or entire departments. Possible measures include: number of publications, number of citations, h-index, and ranked lists of publications or faculty members. Research impact of particular subject areas at Emory can also be compared with other institutions.

Please note that running thorough and careful reports is a time-intensive process. For departmental reports, 2-4 weeks may be required for production of the initial report, review by the requesting department, and completion of the final report.

See below for sample reports.

- Sample Individual Report
- Sample Departmental Report
- Sample Institutional Report

Social Sciences Librarian

Jennifer Elder

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Sorry, chat is offline. Search the Knowledge Base or Submit your Question

Contact:
Librarian for Psychology, Journalism, & Women's, Gender, & Sexuality Studies

Emory University

Robert W. Woodruff Library

404-712-2833

Subjects:
Journalism, Psychology, Women's and Gender Studies, Women's Studies

Robert W. Woodruff Library   April 23, 2013

Publication and Citation Report
Faculty Member Name
Department Affiliations

Date range: 2004-2013

Name variants: Name variant 1, Name variant 2

Number of journal articles: 27

Number of times cited: 251

Number of times cited without self-citations: 222

Average number of times cited per article: 9.30

h-index: 8
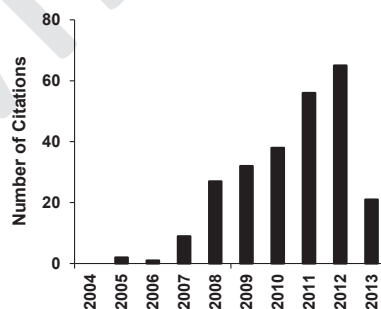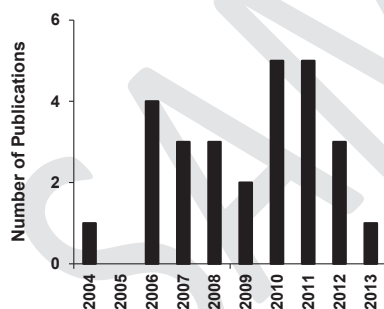
Top publications ranked by number of times cited:

Person A, Person B, Person C. (2006). Proin sit amet lacus id nulla tempor commodo. *Journal of Lorem Ipsum*, 49: 485-498. Times cited: **56**

Person D, **Person A**, Person C, Person B. (2007). Etiam lobortis vestibulum lacus eu tincidunt. *Journal of Phasellus Faucibus*, 3: 11938-11945. Times cited: **27**

Disclaimer: This report only includes journal articles covered by Web of Science (Science Citation Index Expanded, 1900-present; Social Science Citation Index, 1900-present). For more information, see http://guides.main.library.emory.edu/citationanalysis.

Robert W. Woodruff Library   April 23, 2013

Person A, Person C. (2008). Nunc consequat neque ut libero tincidunt ut rhoncus eros pretium. *Journal of Etiam Pharetra*, 14: 1-13. Times cited: **26**

_____

Top publications ranked by journal impact factor:

Person A, Person B, Person C. (2006). Proin sit amet lacus id nulla tempor commodo. *Journal of Lorem Ipsum*, 49: 485-498. 2011 Journal Impact Factor: **15.65**

Person B, Person D, **Person A**. (2012). Ut blandit turpis et ipsum blandit bibendum. *Journal of Suspendisse Ullamcorper*, 21: 23-30. 2011 Journal Impact Factor: **10.31**

Person A, Person C. (2009). Curabitur elementum mauris sit amet est rhoncus id interdum lorem pellentesque. *Journal of Vestibulum*, 13: 659-667. 2011 Journal Impact Factor: **9.80**

_____

Editorial positions:

Journal of Mauris Dictum, 2011 Journal Impact Factor: 4.21, Section Editor.

Journal of Luctus Bibendum, 2011 Journal Impact Factor: 3.56, Reviewing Editor.

_____

Disclaimer: This report only includes journal articles covered by Web of Science (Science Citation Index Expanded, 1900-present; Social Science Citation Index, 1900-present). For more information, see http://guides.main.library.emory.edu/citationanalysis.

Robert W. Woodruff Library   April 23, 2013

Publication and Citation Report
Department Name

Faculty members included in report: Person A, Person B, Person C, Person D, Person E, Person F, Person G, Person H, Person I, Person J, Person K, Person L

Date range of report: 2008-2012

_____

Number of publications: 132

Number of times cited: 877

Number of times cited without self-citations: 720

Average citations per publication: 6.64

Average career h-index: 14
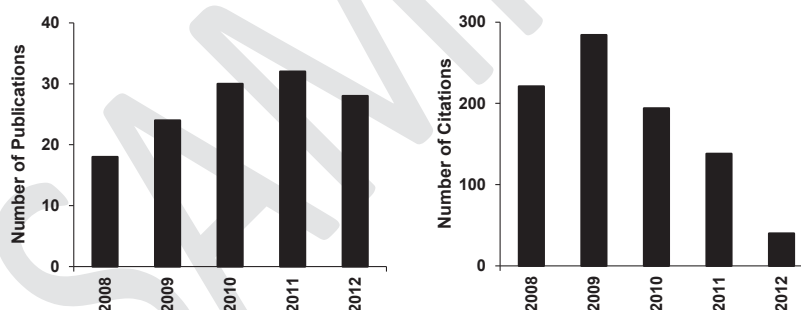
Most frequently cited publications:

Person A, Person R, Person S. (2008). Proin sit amet lacus id nulla tempor commodo. *Journal of Lorem Ipsum*, 49: 485-498. Times cited: **26**

Person J, Person K, Person C, Person B. (2009). Etiam lobortis vestibulum lacus eu tincidunt. *Journal of Phasellus Faucibus*, 3: 11938-11945. Times cited: **21**

_____

Disclaimer: This report only includes journal articles covered by Web of Science (Science Citation Index Expanded, 1900-present; Social Science Citation Index, 1900-present). For more information, see http://guides.main.library.emory.edu/citationanalysis.

Robert W. Woodruff Library   April 23, 2013

Person J, Person D. (2008). Nunc consequat neque ut libero tincidunt ut rhoncus eros pretium. *Journal of Etiam Pharetra*, 14: 1-13. Times cited: **17**

Top journals ranked by impact factor

Impact factor	Journal title	Number of articles
26.12	Journal of Suspendisse Ullamcorper	1
15.65	Adipiscing Journal	2
9.32	Journal of Etiam Pharetra	2

Top journals ranked by number of articles

Number of articles	Journal title	Impact factor
7	Cras pharetra Journal	3.23
5	Donec ultrices	4.56
5	Journal of turpis	3.58

Faculty members ranked by number of publications

Faculty member	Number of publications
Person H	13
Person A	13
Person C	11
Person F	10

Faculty members ranked by h-index

Faculty member	h-index
Person I	30
Person J	27
Person H	21
Person D	19

Disclaimer: This report only includes journal articles covered by Web of Science (Science Citation Index Expanded, 1900-present; Social Science Citation Index, 1900-present). For more information, see http://guides.main.library.emory.edu/citationanalysis.

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Publication and Citation Report
Name of Subject Area

Institutions included in report: University A, University B, University C

Date range of report: 1981-2011

Number of publications:

    University A: 883

    University B: 665

    University C: 272
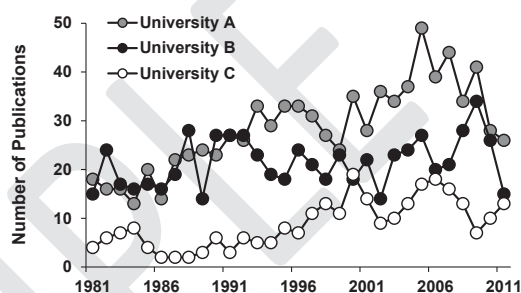
Number of citations:

    University A: 22,077

    University B: 19,019

    University C: 6,061
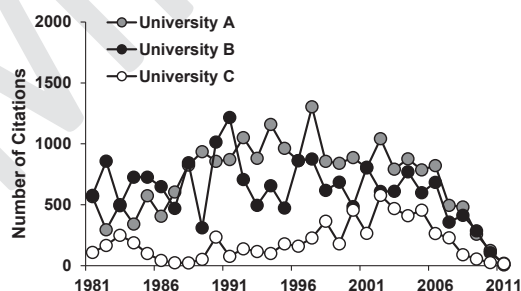
Average citations per publication:

    University A: 26.20

    University B: 29.36

    University C: 22.76

Disclaimer: This report only includes publications covered by Web of Science, January 1, 1981 through December 31, 2011. For more information, see http://guides.main.library.emory.edu/citationanalysis.

The Florida State University
DigiNole Commons

Library Faculty Publications   University Libraries

12-1-2013

Open Access Week 2013 Final Report

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Open Access Week 2013

Final Report

Assembled by the Office of Scholarly Communication

Micah Vandegrift, Scholarly Communication Librarian
Josh Bolick, Scholarly Communication Assistant
Nina Rose, Scholarly Communication Intern

1. Introduction and Background

International Open Access Week is an annual occasion for the international research and academic communities to learn about the benefits and opportunities of open access, the goal of which is to

Florida State University Open Access Week 2013 Report

"...inspire wider participation in helping to make Open Access a new norm in scholarship and research." Open Access Week 2013 occurred in the last full week of October, the 21st through 27th. This was the sixth year that Open Access Week was celebrated, and the fourth year it was observed at Florida State University. This year's theme for Open Access Week was "Redefining Impact."

As open access is generally heralded by librarians, events and initiatives around that topic are hosted by Florida State University Libraries. Following the lead of other universities that hosted Open Access Week events, the 2010 and 2011 programs included lectures, panels and discussions. While the programs were generally well-regarded and in line with current events and interesting topics, they were largely attended by open access advocates and librarians. As the goals of FSU's open access program became clearer, the decision was made that lectures and panels hosted in the library were not achieving the desired effect of raising campus-wide awareness about open access. The 2012 initiative for Open Access Week took the form of an information campaign, including eight posters, informational brochures, and staff time spent at an information table in the main floor of the library. While unable to measure effectiveness by numbers of attendees, it became apparent that the level of knowledge about open access is increasing as outreach takes new flavors.

2. Open Access Week 2013

Brainstorming produced two campus-wide initiatives

Open Access Week planning began with the start of the fall semester. The Scholarly Communication Librarian, Micah Vandegrift, organized a committee that included members representing Undergraduate Commons, Scholars Commons, the Engineering Library, the College of Medicine Library, and Goldstein Library, led by Scholarly Communication Assistant, Josh Bolick, with assistance from Nina Rose, Intern for the Scholarly Communication Office. After initial discussions outlining previous year's events and low levels of participation, the committee held several brainstorming sessions to explore ideas for reaching a broader audience. Two principal initiatives emerged, one directed at faculty (the traditional audience for Open Access advocacy), and the other directed at undergraduate students, who have often been neglected in discussions of open access.

DigiNole Commons Upload-A-Thon

The faculty-centered initiative of Open Access Week was a campus-wide institutional repository "Upload-A-Thon," with the goal of at least one faculty member from each department depositing at least one article into DigiNole Commons. Beginning in October, liaison librarians began identifying and e-mailing individual faculty members to ask for their participation in the Upload-A-Thon, which was also publicized in *Florida State 24/7, the FSU community news website.*
Twelve departments within ten colleges participated in the initiative. Highlights and illustrative charts are below.

As a result of the Upload-A-Thon and momentum achieved through other scholarly communication activities this year, we have identified five new target departments for outreach:
- Art History
- Art Education
- School of Library and Information Studies

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Florida State University Open Access Week 2013 Report

- Nutrition, Food & Exercise Sciences
- Urban & Regional Planning

Highlights:

- 41 deposits were made as a direct result of Upload-A-Thon outreach efforts;
- 80 new deposits were made in October 2013, including 39 deposits from the College of Medicine;
- Social Sciences contributed 90% of the Upload-A-Thon deposits, Humanities 5%, and Science, Technology, Engineering, and Math, 5%;
- 124 hits on Upload-A-Thon deposits were registered in October 2013;
- 96 downloads of Upload-A-Thon deposits were recorded in October 2013;
- Overall downloads during October 2013 increased 43% from September and 83% from August, suggesting that DigiNole Commons promotional efforts leading up to Open Access Week had a direct impact on repository usage

Charts

Number of Deposits by Department
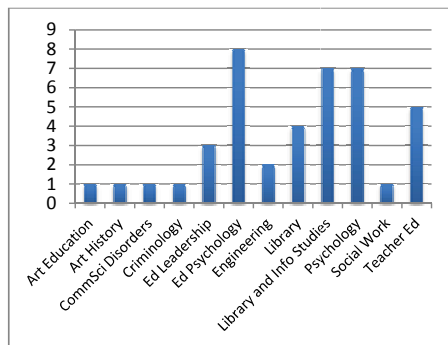
Total Hits on Upload-A-Thon Articles by Department, Oct. 2013

2
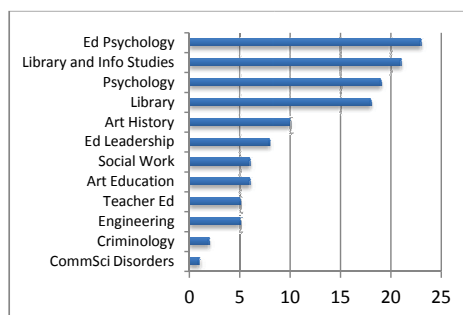
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Number of Departments by Field

- Social Sciences 90%
- Humanities 5%
- STEM 5%
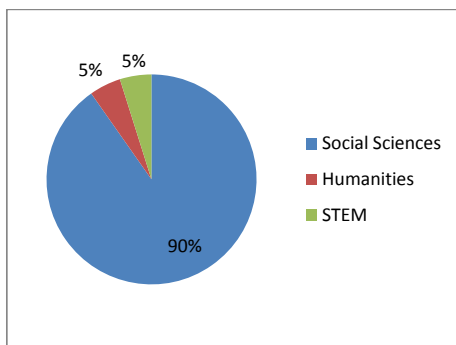
Total Downloads of Upload-A-Thon Articles by Department, Oct. 2013
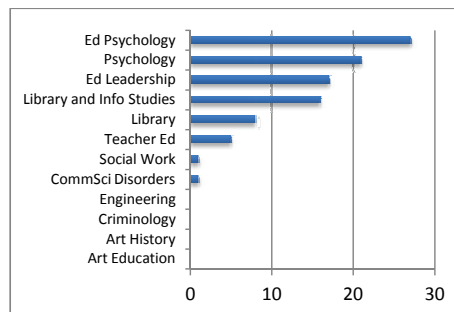
Download Rate Comparison: August, September, October 2013

- August
- September
- October
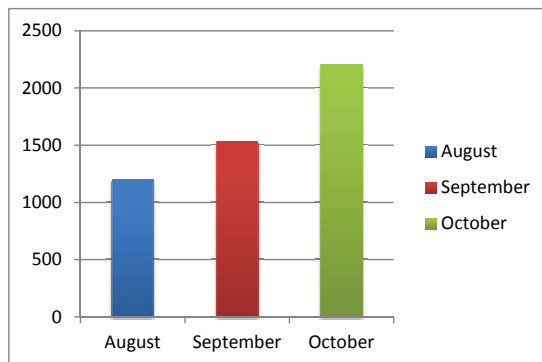
The Student Statement on the Right to Research

Invoking the "Redefining Impact" theme selected by the international organizers of Open Access Week, the student-focused initiative enlisted the FSU student body in open access advocacy by

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Florida State University Open Access Week 2013 Report

asking them to endorse The Student Statement on the Right to Research, a general expression of support for the principle of open access. Outreach was targeted at Registered Student Organizations (RSOs) starting with departmental clubs and culminating with Student Government Association (SGA) Senate and the Congress of Graduate Students (COGS).

The goal of this outreach was twofold. First, we sought to disperse advocacy efforts to heighten awareness of Open Access Week. Rather than one or two centralized events, multiple conversations about open access would occur in discipline-specific settings, addressing the needs of a given audience. Second, the support of RSO's would provide leverage for students and University Libraries to express their support for open access to faculty and university administration.

The Student Chapter of the American Library Association (ALA) was a natural starting point for student advocacy because equitable access is a tenet of librarianship. The Scholarly Communication Librarian and Assistant met with ALA Student Chapter President Laura Browning, Vice President Anastasia Meyer, and Treasurer Sarah Reeves at the Goldstein Library in late September. Their response was enthusiastic. Additionally, a student senator, Jacob Breter, was contacted through a library student assistant. Senator Breter agreed to sponsor a bill in Student Senate and arranged for Micah Vandegrift to speak at the following SGA Senate meeting on Wednesday, October 9th. The Congress of Graduate Students Speaker, Alexander Boler, was contacted directly and invited Micah to speak to the next COGS meeting. Initial meetings were followed with an email reiterating important points, providing links to pertinent documents and information sources, and inviting any further questions or concerns.

Highlights

- ALA Student Chapter at FSU became the 72nd organization to sign the Statement. They shared this information on their social media, and were welcomed to the Right to Research Coalition in a tweet.
- SGA Senate unanimously passed a resolution endorsing the Statement internally. Public endorsement by SGA President Rosalia Contreras is pending.
- COGS passed a resolution endorsing the Statement internally (5 ayes, 4 nays, 3 abstentions). Public endorsement by COGS Speaker Alexander Boler is pending.
- COGS sent an official announcement outlining their endorsement to senior university administrators, including the President and Provost.
- Additional organizations have expressed interest in signing the Student Statement, including Progress Coalition, which has working relationships with other progressive student organizations at FSU.

3. Challenges and Opportunities

Successes

- Substantial growth of repository holdings (outlined above).
- Heightened awareness of open access with four stakeholder groups: undergraduates, graduate students, faculty, and administration.
- Buy-in from many new faculty members:

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Florida State University Open Access Week 2013 Report

- o New faculty represent the majority of Upload-A-Thon submissions, suggesting a generational shift in attitudes towards OA and scholarly communication.
- Media coverage on the FSU homepage, FSU News, and FSView heavily increased exposure levels.
- Liaison involvement/investment:
  - o The impact of the Upload-A-Thon was broadened by working through librarians who have already established rapport within departments. An additional benefit was training for liaison librarians and firsthand exposure to open access and the concerns of their departmental faculty.

Challenges and Opportunities

Committee Work:

- Open Access Week Committee
  - o The OA Week Committee was helpful, but underutilized by committee leadership. In the future, the OA Week Committee should be involved more directly in all phases of planning and execution.
- Marketing Committee
  - o Procedures for the production of outreach materials for Open Access Week had not yet been established and this caused a delay in their production. In the future, marketing plans will begin much earlier (July) and the workflow for approval of materials will be streamlined.

Partnerships within the library:

- Liaison participation in the Upload-A-Thon ranged from zero to very active. To a certain extent, apathy or non-participation is understandable in that liaison librarians already have other responsibilities and obligations. The Scholarly Communication Team must develop close partnerships with liaison librarians and provide training and information throughout the year so that when Open Access Week arrives, liaisons are informed and ready to assist. The Scholarly Communication Team must empower liaison librarians to be maximally effective with minimal investment.

Establishing trust from faculty:

- The ongoing work of Scholarly Communication Team.
- Increased exposure for the variety of partnerships and services offered by the Scholarly Communication Librarian and Assistant.
- Building reputation for libraries doing new, interesting, relevant work.

Moving forward

We have an opportunity to ride a wave of momentum coming out of Open Access Week 2013. We want to continue to present the value of open access and our Open Access Week initiatives in the light of President Barron's Top 25 push. We should also leverage data from DigiNole, and the testimonies of contributing faculty to build a stronger outreach program to academic departments.

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Florida State University Open Access Week 2013 Report

Future Open Access Weeks will benefit greatly from getting started earlier. As the event occurs in October, work should be well-underway prior to the start of the Fall semester. Early development of a plan, committee, and promotional materials will be crucial to the future growth of Open Access Week as a successful enterprise at FSU. As of now, there are several potential directions for Open Access Week 2014. First, we could attempt to engage the public in access to scholarship produced at FSU by working with local media and the Leon County Library System. Alternatively, we could lampoon the toll access publishing world by promoting the opposite of Open Access: Closed Access. Closed Access Week would feature promotional materials designed to invoke the early 20th or late 19th century, and talking points which highlight the ridiculous nature of hanging on to the old system given modern opportunities; a mock campaign for open access by advocating for closed access.

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Nina Rose, Scholarly Communication Intern

Scholarly Communication Office @ FSU Libraries

http://lib.fsu.edu/tads/scholarly-communication

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MIT Faculty Open Access Policy turns six: readers around the world benefit

By **Ellen Duranceau** on *March 20, 2015* in ***Scholarly communication***

The MIT Faculty Open Access Policy was adopted by the faculty in March 2009, to share the faculty's scholarly articles as widely as possible.

Since establishing the policy, more than 16,000 articles have been made openly available in the Open Access Articles Collection in MIT's repository DSpace@MIT.   Downloads routinely reach over 90,000 per month, with readers from all across the globe — as is apparent from the map in the new download statistics service, oastats:

Data	Timeline	Map

Geographic Distribution of Article Downloads

0:    1 - 15:   16 - 239:   240 - 3711:   3712 - 57468:   57469 - 889797:
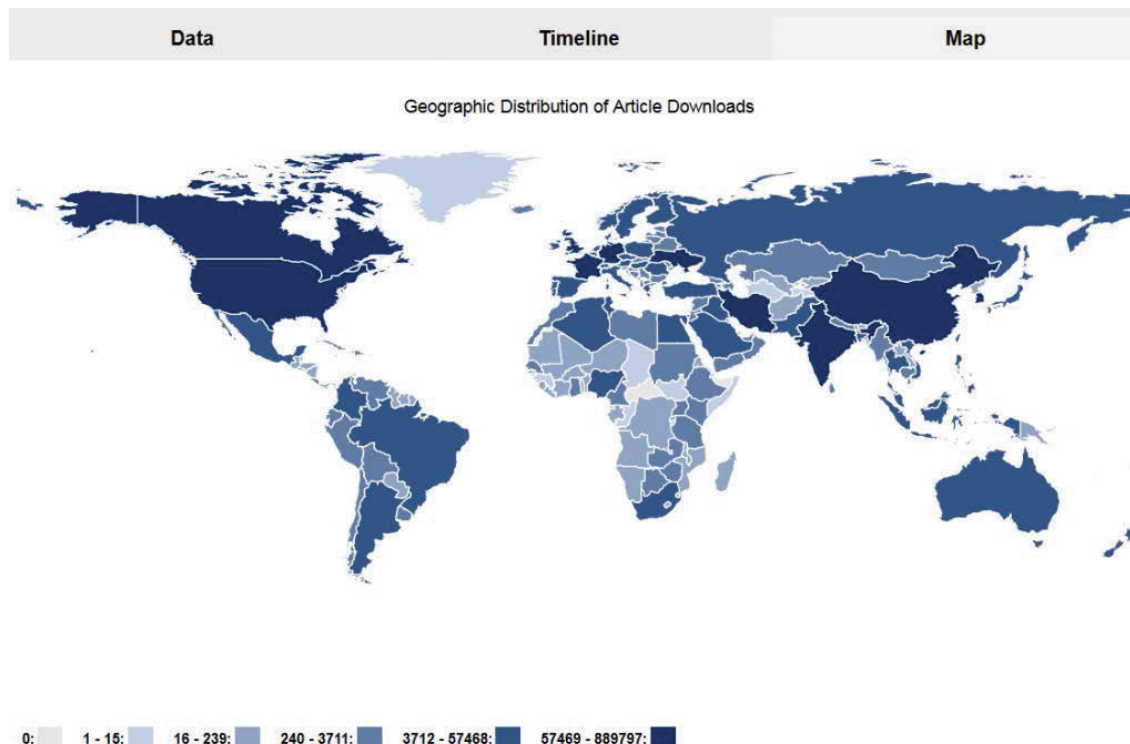
One reader, a self-identified homemaker with a background in nutrition, wrote this week that:

"It is very hard to come by solid, peer-reviewed research/reviews on GMOs when you aren't in academia or working in a medical setting. … It really is a service to the public to make scientific studies open knowledge so individuals can make informed decisions. Thank you!"

A group of researchers in Canada recently commented on the difference the open access makes:

"We are a group of kinesiology / psychology / technology applied researchers thinking to expand into design for special needs. Autism is one area of interest. Open access provides us with contact, ideas,and knowledge to achieve this on a limited budget. … Thank you."

WASHINGTON UNIVERSITY IN ST. LOUIS
The Ocular Hypertension Treatment Study and Its Impact
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scholarly publishing

The Ocular Hypertension Treatment Study and Its Impact

BY AMY SUITER, CATHY SARLI, KAREN GUTZMAN AND MICHELLE DOERING
August 18, 2014

The Ocular Hypertension Treatment Study (OHTS), 1992-2012, was a randomized controlled multi-center clinical trial conducted in 22 clinical centers in the United States funded by the National Eye Institute of the National Institutes of Health (EY09307). OHTS was designed to determine whether lowering intraocular pressure (IOP) in individuals with ocular hypertension delays or prevents the development of primary open angle glaucoma (POAG) and risk factors for the development of POAG. The primary outcome paper was published in 2002. Michael A. Kass, MD, Professor, Department of Ophthalmology & Visual Sciences, is the Principal Investigator/Study Chairman, and Mae O. Gordon, PhD, Professor, Division of Biostatistics and Department of Ophthalmology & Visual Sciences, is the Director of the Vision Research Coordinating Center.

OHTS was the first trial to demonstrate definitively that treatment of elevated intraocular pressure (IOP) delays or prevents the onset of glaucomatous damage. OHTS also identified risk factors for developing primary open-angle glaucoma (POAG) including older age, higher IOP and larger cup/disc ratio, and was the first study to identify central corneal thickness (CCT) as an independent risk factor for the development of POAG.

To date, 51 peer-reviewed journal articles have been authored by OHTS. A full list of articles and abstracts is available in the OHTS Bibliography.

In 2007 Becker Library performed a citation review of OHTS publications (26 articles as of August 2007). Several articles demonstrated significant citation rates. As follows are examples of publication metrics that were used in 2007 as well as updated examples for 2014.

As of August 2007, several of the OHTS papers were among the highly cited papers in the field of Clinical Medicine and were core papers for the subject of Glaucoma per Thomson Reuters Essential Science Indicators.

- Kass MA, et al. 2002. The Ocular Hypertension Treatment Study: A randomized trial determines that topical ocular hypotensive medication delays or prevents the onset of primary open-angle glaucoma. PMID: 12049574. 339 citations in Thomson Reuters Web of Science as of August 2007.
- Gordon MO, et al. 2002. The Ocular Hypertension Treatment Study: Baseline factors that predict the onset of primary open-angle glaucoma. PMID: 12049575. 267 citations in Thomson Reuters Web of Science as of August 2007.
- Brandt JD, et al. 2001. Central corneal thickness in the Ocular Hypertension Treatment Study (OHTS). PMID: 11581049. 118 citations in Thomson Reuters Web of Science as of August 2007.

As of August 2007, per Thomson Reuters Essential Science Indicators, the Kass and Gordon articles ranked in the top 0.10% of papers in Clinical Medicine based on citations (339 and 267 citations respectively), with the Brandt article in the top 1.0% of papers (118 citations).

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Percentiles for papers published by field, 1997 – 2007

Clinical Medicine	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	All Years
0.01 %	1440	1692	1068	1026	1030	1007	619	430	261	73	8	969
0.10 %	516	493	457	399	336	288	236	160	93	28	4	330
1.00 %	166	158	144	133	115	99	78	54	31	10	2	105
10.00 %	44	41	39	36	32	27	22	16	9	3	1	26
20.00 %	25	24	23	21	19	16	13	10	6	2	0	14
50.00 %	8	8	8	7	7	6	5	4	2	1	0	4

Screenshot of Thomson Reuters Essential Science Indicators; August 2007.

These three articles also exceeded average citation rates for papers in Clinical Medicine based on citations per Thomson Reuters Essential Science Indicators.

Average Citation Rates
for papers published by field, 1997 - 2007
(How to read this data)

Fields	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	All Years
All Fields	15.99	15.15	14.22	13.10	11.52	9.69	7.52	5.38	2.91	0.75	0.08	8.87
Agricultural Sciences	9.11	9.14	8.73	8.36	7.15	5.96	4.81	3.26	1.64	0.39	0.07	5.31
Biology & Biochemistry	27.62	25.36	23.40	21.83	18.94	15.65	12.22	8.60	4.57	1.15	0.08	15.24
Chemistry	14.17	14.05	13.07	12.58	10.81	9.72	7.66	5.64	3.22	0.86	0.05	8.44
Clinical Medicine	18.64	17.71	16.73	15.42	13.72	11.77	9.36	6.65	3.66	0.92	0.09	10.73
Computer Science	5.78	5.94	5.21	4.59	4.55	4.33	2.46	1.51	0.81	0.18	0.04	2.58
Economics & Business	9.09	7.96	6.98	6.13	5.07	4.43	3.17	2.06	0.97	0.25	0.06	4.32

Screenshot of Thomson Reuters Essential Science Indicators; August 2007.

As of July 2014, the citation counts in Thomson Reuters Web of Science were as follows:

- Kass MA, et al. 2002. The Ocular Hypertension Treatment Study: A randomized trial determines that topical ocular hypotensive medication delays or prevents the onset of primary open-angle glaucoma. PMID: 12049574. 1,219 citations in Thomson Reuters Web of Science as of August 2014.

- Gordon MO, et al. 2002. The Ocular Hypertension Treatment Study: Baseline factors that predict the onset of primary open-angle glaucoma. PMID: 12049575. 981 citations in Thomson Reuters Web of Science as of August 2014.

- Brandt JD, et al. 2001. Central corneal thickness in the Ocular Hypertension Treatment Study (OHTS). PMID: 11581049. 227 citations in Thomson Reuters Web of Science as of August 2014.

A search in Elsevier Scopus was also performed in July 2014. A search in Elsevier Scopus for article and review document types with the keyword of "Glaucoma" resulted in 53,534 publications, dating from 1895 to current. Two OHTS articles were in the top ten cited publications:

As of July 2014, 50 of the 51 peer-reviewed journal articles by OHTS as noted in Elsevier Scopus were cited 4,417 times by 3,069 documents in Scopus. The languages represented by the citing documents include 17 non-English languages: German, French, Chinese, Spanish, Portuguese, Japanese, Turkish, Czech, Polish, Croatian, Dutch, Slovene, Bulgarian, Norwegian, Serbian, Slovak, and Swedish. The citing author affiliations were from institutions worldwide from over 70 countries as noted in the geographic map below which demonstrates global impact and influence.
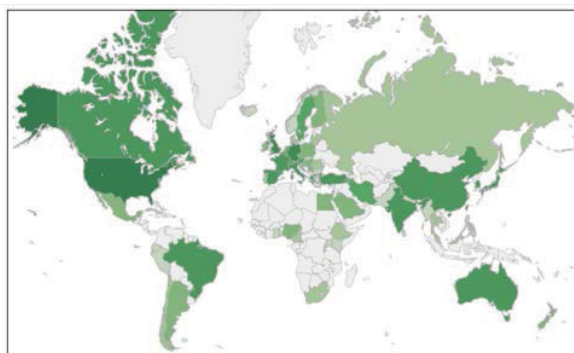
Geographic Map Displaying Countries Represented by Author Affiliations of Citing Publications to OHTS Articles
(Colorized by number of citing countries)
Map created by Amy Suiter using *Tableau*

OHTS was the first study to identify central corneal thickness (CCT) as an independent risk factor for the development of POAG. This finding was published in the 2002 article: The Ocular Hypertension Treatment Study: Baseline factors that predict the onset of primary open-angle glaucoma. The term of "central corneal thickness" was searched in PubMed to determine if there was an uptake in usage of the term. While there is an increase in the term as noted in PubMed, the cause may be temporal and not directly correlate to OHTS.

Timeline of "Central Corneal Thickness" by the Ocular Hypertension Treatment Study (OHTS)
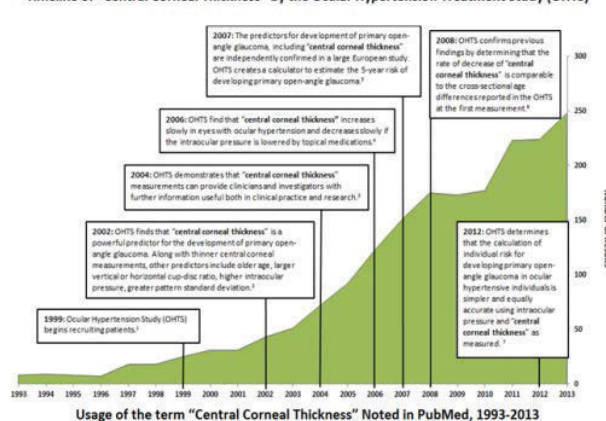
Usage of the term "Central Corneal Thickness" Noted in PubMed, 1993-2013

PubMed search done by Karen Gutzman
Chart created by Karen Gutzman and Michelle Doering using *Excel*

The 2007 review of the OHTS articles raised questions regarding the suitability of metrics based on publication data to illustrate meaningful health outcomes or clinical applications. The project further expanded to identify and locate evidence of research impact beyond use of publication metrics. Impact includes meaningful health outcomes and other outcomes correlated with the diffusion of knowledge such as new research studies, synthesis into clinical applications, or influence on public policy. Examples of impact resulting from OHTS findings were identified and are illustrated in the *Wordle* image below.

Image generated by Cathy Sarli using *Wordle*

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"**Reads**" reflects the number of times a PDF of the article has been accessed from the journal website.
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"**F1000**" reflects the number of article recommendations in F1000 Prime.

These metrics are typically only available for recent publications (usually 2007 or later) and should be
used with caution. They have not yet been shown to be indicative of significance, nor are they
predictive of citations.

Elsevier *Scopus*
This report was generated using publication and citation data from the Elsevier *Scopus* database and
reflects only the data as indexed by the database. *Scopus* contains complete publication data from 1996
to current with additional pre-1996 publication data dating from 1823. Citation data is complete from
1996 to current only. **Publication and citation data may be incomplete due to coverage and name
variant issues.** Some publication and citation data files are limited to 160 rows in Excel format.

Scopus indexes from ~20,000 different sources including journals, book series, and conference papers
that have an International Standard Serial Number (ISSN). Meeting abstracts are not included.
Publication types included: Article In-Press, Article, Conference Report, Book, Book Chapter, Editorial,
Erratum, Letter, Note, Review, Other and Short Survey.

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Content last reviewed 28 April 2015

What is the *h* index?
The *h* index was proposed by J.E. Hirsch in 2005 and published in the *Proceedings of the National Academy of Sciences of the United States of America:* http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1283832/. The *h* index is a quantitative metric based on analysis of publication data using publications and citations to provide *"an estimate of the importance, significance, and broad impact of a scientist's cumulative research contributions."* According to Hirsch, the *h* index is defined as: "A *scientist has index h if h of his or her Np papers have at least h citations each and the other (Np – h) papers have ≤h citations each*."

As an example, an *h* index of 10 means that among all publications by one author, 10 of these publications have received at least 10 citations each.

For Younger Investigators:
An alternative metric to consider is the *m* **value**.
The *m* value is a correction of the *h* index for time with y = number of years since the first publication: (m = h/y). According to Hirsch, *m* is an "*indicator of the successfulness of a scientist*" and can be used to compare scientists of different seniority. The *m* value can be seen as an indicator for "scientific quality" with the advantage (as compared to the *h* index) that the *m* value is corrected for age.

Note that the *h* index calculation from *Scopus* only uses documents published after 1995.

The *h* index varies among resources including Google Scholar depending on the publication and citation data included in the calculation of the *h* index.

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Library » Library Guides » Scholarly Metrics

Scholarly Metrics
Tags: altmetrics, citation, citation_search, cited_references, impact_factor, journal_ranking, promotion, tenure, web_of_science

This page describes the various means of searching for cited and citing references, measures of influence and impact, altmetrics and bibliometrics.

| Basics | Conducting Your Search | Cited Reference Analytics | Altmetrics | Author Profiles |

Basics   Print Page

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Tracking Cited References

Cited references are the articles, books, and other resources listed in a bibliography, a "Works Cited" list, or in a "References" list. Cited references are useful for finding additional articles and books on a topic, for identifying the top researchers in a field, and for promotion and tenure decisions.

Databases tracking cited references make it possible to follow the instances where an author has been cited. This technique may be useful to:

- Track the research of an individual
- Track the history of a research idea
- Locate current research based on earlier research
- Find out how many times and where a publication is being cited
- Find out who is citing a particular source
- Find out how a particular research topic is being used to support other research and to analyze its impact

Effective Strategies for Increasing Citation Frequency

Journal Reputation and Impact: publishing a paper in a journal based on disciplinary reputatation or with a high impact factor is the most well known way of getting your paper cited. But there are many other things a scholar can do to promote his or her work and make it easy for others to find.

Utilize Open Access Tools: Open Access journals tend to be cited more than non open access. Deposit your paper in a repository such as Scholars Archive here on campus or a disciplinary repository. Share your detailed research data in a repository.

Standarize Identifying Info: try to use

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Comments (0)

Overview of Citation Metrics

BASIC CITATION METRICS: AN OVERVIEW

1 of 22

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What's the Difference Between All of These Tools?

Research Impact and Visibility Guide from Utrecht University Libraries

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Essential Concepts of Scholarly Metrics

Altmetrics: a new form of measuring scholarly impact based on web-based and social media sources which can show influence and impact.

Bibliometrics: The variety of metrics available based on cited reference data to measure scholarly output, impact, relevance and ranking. Analytics include citation count, impact factor, SNIP, h-index, e-index, and a wide variety of related measurements.

Citation Analysis: the process of tracing various patterns of scholarly behavior through analyzing the cited and/or citing references of a body of work. This could be done on an individual article, author, journal, institution, or other group.

Citation Count: The number of times an article, author, journal, institution, etc. has been cited. It is very difficult to locate every single time something or someone has been cited. Commonly accepted citation counts come from Web of Science. Each source which provides citation counts draws from a different base of resources and therefore the results may differ between Web of Science and Google Scholar, for example.

Citation Evaluation: Simply identifying the number of times someone or something has been cited does not account for certain citation patterns. For example, an author may have one or two articles early in his or her career that have very high citation counts, but later articles have substantially fewer. Another author may have a relatively steady number of citations for each article throughout his or her career.

Journal Ranking: There are a number of metrics that seek to measure the influence of a journal based on how it is being cited in other works. One such metric is the Journal Impact Factor. It should be emphasized that the ranking of a journal is not necessarily a reflection of a single specific article within the journal.

the same name throughout your career as well as the name of your affiliated insitution. Using common "official" names will allow for consistency and easy retrieval of your work by author or affiliation.

Bring Colleagues on Board: team-authored articles are cited more frequently, as does publishing with international authors. Working cross-or inter-disciplinarily helps as well.

Beef Up That Paper: use more references, publish a longer paper. Also papers which are published elsewhere after having been rejected are cited more frequently.

Beyond Peer-Reviewed Original Research: Write a review paper. Present a working paper. Write and disseminate web-based tutorials on your topic.

Search Optimization: use keywords in the abstract and assign them to the manuscript. Use descriptive titles that utilize the obvious terms searchers would use to look for your topic, avoiding questions in the title. Select a journal that is indexed in the key library databases for your field.

Market Yourself: create a key phrase that describes your research career and use it. Update your professional web page and publication lists frequently. Link to your latest and greatest article in your professional email signature file.

Utliize Social Media: Use author profiles such as ResearcherID and ORCID. Contribute to Wikipedia, start a blog and/or podcast, join academic social media sites.

From: Ebrahim, N.A., et al. (2013). Effective strategies for increasing citation frequency. *International Education Studies,* 6(11):93-99. DOI.5539/ies.v6n11p93

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Quality Factors & Caveats

Journal Prestige: There are basically two approaches to assessing journal prestige: (1) Perception/ranking of the journals by experts in the field, and (2) Journal ranking metrics providing analysis of citation rates. Other factors, such as journal submission and acceptance rates are also sometimes considered. Consult your Subject Librarian for assistance in this area.

"Good" Metric Scores (citation count, h-index, journal impact factor, journal ranking, etc.): Due to the varying citation rates from discipline to discipline, and even from specialty to specialty within a discipline, it is not possible to give a blanket statement regarding "good" metrics.

Caveats: There are many reasons why an author will cite previous research in his or her paper, and not all are an endorsement of the previous research. Self-citation, disagreeing or contradicting previous findings, and other motvations may not accurately reflect the influence of that work. This holds true for altmetrics counts as well.

For more information see: Leydesdorv, L. (2007) Caveats for the use of citation indicators in research and journal evaluations. *Journal of the Association for Information Science and Technology,* 59(2): 278-287. DOI: 10.1002/asi.20743

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Citation Research

How to find citation counts for your publications and how to find journal rankings such as impact factors.

Last Updated: Apr 9, 2015 | URL: http://libguides.asu.edu/citation   Print Guide | RSS Updates | Email Alerts

| Overview | Article Citation Counts ▾ | Non-article Citation Counts | Altmetrics | Journal Rankings ▾ | Terms and Definitions |

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Introduction

This guide is designed to bring tools, information, sources and tutorials on citation research together in one place. The field of bibliometrics is increasingly being used to evaluate the impact of a scholar's work (citation counts and altmetrics) or to determine the importance of a journal within a particular field (impact factor).   We'll show you how to find bibliometric data and how to use it appropriately.

Contact Us

Citation Research Group:
Lydia LaFaro
Linda Shackle

Email Us

For information related to your specialty, contact your subject librarian .

Getting Started

If you are looking for ...	See ...
How many times your article has been cited	Article Citation Counts
How many times your book, conference paper, dissertation or patent has been cited	Non-article Citation Counts
How many times your publications have been downloaded or mentioned in social media	Altmetrics
Who is citing your articles	Article Citation Counts
Who is citing your book, conference paper, dissertation or patent	Non-article Citation Counts
Your H-index	Article Citation Counts: • Web of Science-->Analysis by Author • Google Scholar-->Software & Programs
A journal's impact factor	Journal Rankings
A journal's H-index	Alternative Sources for Journal Rankings
Explanations of citation research concepts and terminology	Terms & Definitions

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Research Impacts Using Citation Metrics

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Introduction to Guide

This guide introduces resources that describe, utilize, and support the current research landscape.

Considerations of the roles of author, content, sources, impact, reputation, rankings, and benchmarking are increasingly important in analyzing contributions to the research life cycle.

Information here is organized by the different methods of impact that the research landscape is defined by:

Author Impact

Article Impact

Journal/Source Impact

Institutional Impact

Tools are promoted that can be used to engage in research metrics. Since the landscape is constantly changing, **Emerging Metrics** are also explored. For basic information on the Science Information Lifecycle visit this tutorial.

Comments (0)

Recommended Methods

Some recommended methods of research impact and citation metrics are detailed in the pages of this guide:

Web of Science Citation Report (Author Impact)

Google Scholar Author Profile (Author Impact)

H-Index (Author Impact)

Altmetrics (Article Impact)

Web of Science Cited Reference Search (Article Impact)

Journal Citation Reports Impact Factor (IF) (Journal Impact)

Eigenfactor (Journal Impact)

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Research Impacts Using Metrics

Research impact is a measure of the significance and importance of academic work within a scholarly community.

Bibliometrics are the use of quantitative tools to study publications and other written material.

Citation metrics focus on the statistical patterns and measurements of citations.

Citation analysis can be used as a quantifiable measure of academic output and research impact, which can help inform decisions on publication, promotion, and tenure.

Altmetrics is increasingly becoming an alternative and important method of measuring the impact of scholarly and other output and allows for social media tracking by various indicators such as number of tweets, blog posts, likes, bookmarks, etc. and are more timely wider-ranging measures of how people—both other researchers and the general public have demonstrated interested in an individual's work and contributions.

This guide is designed to help faculty members, graduate students and librarians use and understand the citation analysis tools available to us. At UCI, there is access to some of the major resources used for citation metrics, for example to obtain an Impact Factor (IF) you could consult the following tools -- Web of Science, Journal Citation Reports and Google Scholar. Descriptions of and guides to these tools can be accessed using the above drop-down menu, organized according to need.

Tools and methods of citation analysis are used to determine:

- How many times a publication or author has been cited
- Who is citing a publication or author
- A journal's impact factor (relative importance in a field or discipline)
- An author's published output ranking in a field or discipline.

Because of the limitations of each method, it is important to use multiple methods, sources, and tools to get a fuller and more complete analysis. Increasingly, the research community is studying how to assess the value of cooperation and collaboration among colleagues, scholars and scientists, with barriers being reduced and geography more global. New metrics and values will likely emerge through different sources, to complement and extend already existing methods and products.

Comments (0)

Limitations

Limitations of citation metrics:

- Current cause of concern articulated by scientists in this article about the role of impact factors in determining merits of science and scientists

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Acknowledgements

This Guide was initially prepared by Laine Thielstrom (thielstrom@gmail.com) during her Library School internship at the San Jose State University Graduate School of Library & Information Science, and was conducted at the University of California, Irvine Libraries in Fall 2012. Additional revision to the guide was done after consultation with Laura Bowering Mullen, Rutgers University Libraries.

Comments (0)

- Errors on citing papers can lead to separate entries and missed counts.
- Author and institutional naming inconsistencies can lead to separate entries and missed counts.
- Different databases use different sources to generate data and some are more comprehensive than others.
- Tools are skewed towards the STEM (science, technology, engineering and medicine) communities of scholars.
- Citations do not measure the number of readings of a work.
- Citations are not the only indicators of the importance of a work.

Comments (0)

DORA

The San Francisco Declaration on Research Assessment (DORA) has generated a lot of discussion since it was launched by the American Society for Cell Biology in December 2012.

- Additional comments from Science, theBUZZ

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Impact Metrics and Scholarly Attribution

Discover your research impact, manage attribution of your research works, and search citations.

Home | Author Impact ▾ | Article Impact ▾ | Journal/Source Impact | Institutional Impact

Emerging Metrics | Further Information

Guide Introduction

The goal of this guide is to assist faculty members, research staff, and graduate students in understanding how to use impact metrics tools currently available.

Considerations need to be made in regards to the role that the author, content, source, impact, ranking, and benchmark have on the research cycle.

Four main areas can be used to determine the impact of research:

Author Impact

Article Impact

Journal/Source Impact

Institutional Impact

Limitations on Impact Factors

With any statistical measurement, there willl always be limitations of the data. Things to keep in mind:

- Errors on citations can lead to multiple entries and missed citations.
- Author and institutional naming inconsistencies can lead to multiple entries and missed citations.
- Different databases use different sources to generate data. Some databases are more comprehensive than others.
- These tools are highly skewed toward STEM (science, technology, engineering, medicine) scholars.
- Citations do not measure the number of times a work has been read or accessed.
- Citations are not and should not be the only indicator of the importance of a work.

The San Francisco Declaration on Research Assessment (DORA), run by the American Society for Cell Biology, has partnered with editors and publishers to ask the scientific community to stop misusing impact factors as a metric to judge scientific output.

- **San Francisco DORA Homepage**
- **DORA Editorial Article in Molecular Biology of the Cell**

Determining Impact from Metrics

Research impact is a measure of the significance and importance of academic work within a scholarly community.

Bibliometrics are the use of quantitative tools to study publications and other written material.

Citation metrics focus on the statistical patterns and measurements of citations.

Citation analysis can be used as a quantifiable measure of academic output and research impact, which can help inform decisions on publication, promotion, and tenure.

Altmetrics is increasingly becoming an alternative and important method of measuring the impact of scholarly output and allows for social media tracking by various indicators such as number of tweets, blog posts, likes, bookmarks, etc. and are more timely wider-ranging measures of how people—both other researchers and the general public have demonstrated interested in an individual's work and contributions.

This guide is designed to help faculty members, graduate students and librarians use and understand the citation analysis tools available to us. At UCLA, there is access to some of the major resources used for citation metrics, for example to obtain an Impact Factor (IF) you could consult the following tools: Web of Science and Journal Citation Reports. Descriptions of and guides to these tools can be accessed using the above drop-down menu, organized according to need.

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- Who is citing a publication or author
- A journal's impact factor (relative importance in a field or discipline)
- An author's published output ranking in a field or discipline.

Because of the limitations of each method, it is important to use multiple methods, sources, and tools to get a fuller and more complete analysis. Increasingly, the research community is studying how to assess the value of cooperation and collaboration among colleagues, scholars and scientists, with barriers being reduced and geography more global. New metrics and values will likely emerge through different sources, to complement and extend already existing methods and products.

Image credit: ***http://altmetrics.org/***

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Promotion & Tenure Resource Guide: Home

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This guide is intended to provide resources useful to individuals who need to evaluate research and its impact. It includes journal acceptance rates, citation analysis, impact factors, journal rankings, creating publication lists, etc.

| Home | Book Data | Citation Metrics | Cited Reference Guide | Creating Reports | Increasing Visibility | Journal Evaluation | Publication List Tools |
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  For in-depth information on how to do cited reference searching.
- Alert Services: A How-To Guide
- Grants Resources
  Resources on grant writing and finding grant information (both government and non-government).
- Open Access LibGuide
  OA is the movement to make information available online in digital form, free of charge, and free of most copyright restrictions.
- Research Methodologies Guide

Information Literacy Guides

These links will help you to be more effective and ethical in your research and writing:

- Primary & Secondary Sources
- Scholarly or Popular?
- Evaluating Scholarly Books & Articles
- Evaluating Websites
- Understanding Plagiarism
- Understanding Copyright

Welcome

This guide is intended to be helpful to someone looking for information to showcase their academic publishing or scholarly visibility. Tenure-track faculty often struggle with ways to present information in their promotion or tenure review portfolio. This same sort of data is used to justify the existence of research programs. Traditionally, elements have included: numbers of times their publications have been cited, journal acceptance rates and journal impact factors. In the electronic age, this has expanded to include non-traditional elements such as number of webpage visits (e.g., for tutorials authored by the faculty member under review), download statistics for PDF, Excel, or Word documents; and, new citation metrics such as the *h* index or Eigenfactor score.

To learn how to conduct a cited reference search (in the *Web of Science Core Collection* and many other sources such as *Google Scholar*), consult the Cited Reference Guide. Then, use the remaining tabs in this guide for ideas on things that might help manage information and present it for your review.

For additional information specific to a given discipline, we recommend you contact your subject librarian and consult senior faculty in your department.

Alternative Sources

Thanks to the Internet, there is an ever-increasing array of resources available to provide quantitative data about a given publication (especially if it is available online). For example:

Delicious (and other similar online communities) can tell you how many people saved a particular URL they found useful.

Google - Advanced Search option will let you see who has linked to a specific URL.

Google Analytics can provide website traffic data (registration is required - but analytics are free).

Google Books will allow you to search for a citation within a book.

Journal editors and publishers often offer download or page hits for articles. Some editors will even tell you what the average number of downloads is for a specific journal that you can then compare to your article(s). While usage data is not the same as citation data, it is another way to show usefulness to scholars.

For some disciplines, these alternative sources of information may be unacceptable or inadmissible. *Web of Science* publishers are attempting to cover just the "core" journals in each discipline so being cited by this select group of core journals can often carry more weight than alternative sources of citation information such as *Google Scholar*. However, many interdisciplinary areas (and new fields) are not covered well by *Web of Science* so alternative sources may be the only way to document scholarly impact. If in doubt about what might (or might not) be acceptable in your discipline, consult senior faculty or your department chair.

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Information and resources for helping scholars assess and improve the impact of their research and scholarship.

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What is impact?

Traditionally, and especially in the sciences, impact has been measured by the number of times a particular article is cited in other comparable publications, or more broadly by the "impact factor" of the journal in which an article appears. While the ability to demonstrate impact can still be an important tool in the promotion and tenure process, complementary or "alternative metrics" for measuring disciplinary impact using formal and informal communications are also becoming more common. These "altmetrics" provide rich, evolving, and diverse methods to point to other kinds of impact, for example impact on the global scholarly community or the general public. The ability to measure impact is often enhanced by free and open access to scholarly publications.

Further reading

"Using bibliometrics in evaluating research." This guide to bibliometrics by Thompson Reuters gives a good overview of impact measures, and provides 10 rules for useful and realistic publication and citation analysis: http://wokinfo.com/media /mtrp/UsingBibliometricsinEval_WP.pdf

Greenberg, Marc L. "Joan Smiths of the World, Disunite!" Blog post: http://slavist-semistrunnik.blogspot.com/2013/08/joan-smiths-of-world-disunite.html

A Recipe for Visibility

Professor Marc Greenberg and Ada Emmett (Head, Office of Scholarly Communication & Copyright) have shared this "recipe" in recent presentations to faculty and students:

Know your rights with regards to copyright and keep as many as you can. Timothy K. Armstrong: *An Introduction to Publication Agreements for Authors*

- Work with KU ScholarWorks: a digital repository at KU which curates your work, makes it openly available, and it tracks usage.

- Register with ORCID and claim your electronically visible research, differentiate it from others' publications with the same or similar names. (see more)

- Claim an Academia.edu page and link there to your papers in KU ScholarWorks. Academia.edu also connects you to the global community of scholars in your areas of interest.

- Claim and make public your GoogleScholar page. Edit it to weed out duplicates and works mistakenly attributed to you. Keep track of your h-index (the number h of your works cited h or more times).

For More Information Please Contact:

Ada Emmett

Email Me

Contact:
Schulenburger Office of Scholarly Communication and Copyright

Watson Library room 450

785-864-8831

What are bibliometrics?

Bibliometrics are ways to measure the impact or influence of an article, journal, or researcher. In one way or another, most bibliometric measures look at how frequently that article, journal, or researcher is cited. Some of the greatest advantages to using bibliometrics are:

- helping researchers figure out where to publish
- finding the most important journals in a field

Greenberg, Marc L. "Not Waving But Drowning." Blog post: http://slavist-semistrunnik.blogspot.com/2013/08/not-waving-but-drowning.html

Lin, Jennifer and Martin Fenner. "Article-Level Metrics – Learning to Walk, Run & Do Algebra." Blog post: http://tinyurl.com/jw248vo

Tanenbaum, Greg. 2013. Article-Level Metrics. A SPARC Primer. http://sparc.arl.org/sites/default/files/sparc-alm-primer.pdf

Types of Article Level Metrics

- **Usage** - How many downloads? Where downloaded?

  Example:: KU ScholarWorks

- **Captures** - How many bookmarks, shares (CiteULike, Mendeley)

  Example: How many "reads" an item In Mendeley has

- **Mentions** - Mentions in non-academic media (news stories, Wikipedia, etc.)

  Example: Altmetric

- **Social media** - Facebook, LinkedIn, Twitter shares

  Example: Altmetric

- **Citations** - Classic metric for "impact"

  Example: GoogleScholar, GoogleScholar Metrics

- guiding students to the most important papers on a topic

- learning about the impact of a paper, researcher, or department

There are many different ways to measure impact, and new ways to view impact are being created now to match changes in research, publishing, and technology. The methods described here are some of the most commonly used.

While each bibliometric measure provides a lot of information, keep in mind that no one measure is thorough enough to fully describe value of a paper, journal, or researcher.

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Scholarly Metrics

This Guide offers an overview of scholarly metrics and the tools you can use to find them.

| Home | Web of Science | Scopus | Google Scholar | Altmetrics & Other Resources | Maximizing Impact | Glossary |

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What are Scholarly Metrics?

Scholarly metrics are a way for the impact of an article, author, or journal to be measured quantitatively. There are different methods used in order to calculate a scholarly impact with the intent that these works will be judged solely on impact to the field as opposed to using criteria without universal standards.

There has been much debate about the use of impact factors in academia. Many academics feel that scholarly metrics place too much emphasis on the quantity of work as opposed to the quality of the work being produced. Another aspect of this debate is the thought that it pressures authors to publish "hot-topic" articles in only the most "impactful" journals as opposed to producing and experimenting with more original work. The use of altmetrics has also added fuel to this debate as many believe the mention of articles/presentations through the social web should be included in the review of their scholarly impact. See the Further Reading section below for more information on this debate.

What resources are available and what do they do?

	Author Level	Article Level	Journal Level	Additional
Web of Science				
Author Search	x			
Citation Mapper		x		
Cited Reference Search		x		
Journal Citation Reports			x	
Essential Science Indicators	x	x	x	departments, countries, hot papers
Scopus				
Altmetric for Scopus		x		
Author Evaluator	x			
Citation Overview		x		
Journal Analyzer			x	
Scimago			x	countries, maps
Google Scholar				
Citations	x	x		
Metrics			x	
Other Resources				
ImpactStory	x	x		
PLOS		x		

Reference Associate

Kelleen Maluski, Health Sciences Reference Associate

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What are some limitations of Scholarly Metrics

Comments (0)

Further Reading

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- Marnett, A. (2010, Oct 20). H-Index: What It Is and How to Find Yours. Benchfly.

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Margaret Smith, Librarian for Physical Sciences

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Measure Your Research Impact: Introduction

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| Introduction | Journal Impact | Author Impact | Author Identifiers & Profiles | Altmetrics | Article Level Metrics |

Where to Publish

In This Guide

Learn how to assess the impact of your research

- Journal Impact
- Author Impact
- Author Identifiers
- Altmetrics
- Where to Publish

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sciencehelp@listserv.unc.edu

The Health and Natural Sciences Team is composed of librarians from the Health Sciences and Kenan Science Libraries.

What is Research Impact?

Research impact is the demonstrable contribution that excellent research makes to academia, society and the economy:

- **Academic impact** : Contribution to academic advances, across and within disciplines, in understanding, methods, theory and application
- **Societal impact**: Benefit to individuals, organizations and nations by enhancing quality of life, health and creative output, and increasing the effectiveness of public services and policy
- **Economic impact**: Attracting investment, wealth creation, enhanced national and global competitiveness

The above statements were adapted from the Research Councils UK.

There are several reasons to measure your research impact:

- Application for promotion or tenure
- Quantify return on research investment for grant renewals and progress reports
- Future funding requests
- Identify who is using your work and confirm that it is appropriately credited
- Identify collaborators within or outside of your discipline

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| Author Metric: H-index | Author Metrics: Profiles | Article Metric: Citation Count | Altmetrics | Further reading |

Introduction

Citation metrics are statistics on the number of times books or articles have been cited in other publications. Aggregate citation metrics are used as a measure of the influence of authors and of journals.

Individual authors track their citations to determine the influence of their work within their field, to see which of their publications are most widely used, and to support their tenure and promotion dossiers. At the journal level, citation metrics are used to measure the relative importance of titles within their fields.

Journal-Level Metrics

Some of the most commonly used journal-level metrics include:

- **Impact factor**—a measure of the average number of citations received by recent articles in a given journal.
- **H-index**—a measure of the influence of either a journal or an individual scholar that accounts for both productivity and impact.
- **Acceptance rate**—the percentage of submitted articles that a journal accepts for publication. (The acceptance rate is not a citation metric per se, but it is often used as a measure of a journal's relative selectivity and prestige. In combination with data like the impact factor, the acceptance rate can be useful in assessing the title's significance to its field.)

Article-Level Metrics

In addition to the measures that calculate the overall impact of a journal, metrics can also be used to calculate the impact of an individual article. The traditional article-level metric is the citation count: the number of times that the article was cited by other scholarly articles.

For another approach to measuring impact, see **Altmetrics**. This suite of metrics includes a variety of measures and tools that trace the impact of research products using metrics besides the traditional, formal citation in other scholarly sources. Some of the measures are designed to account for a wider range of research products (e.g., datasets, software, etc.), while others track impact in a broader variety of venues, especially the social web.

Web of Knowledge

The library's main sources for citation metrics are **Web of Science** and **Journal Citation Reports**. Both are included within *Web of Knowledge*, a collection of databases published by Thompson Reuters.

Web of Science is the online successor to the *Science Citation Index* and *Social Sciences Citation Index*.

To access these databases, choose them from the alphabetical list on the library website or via the links above.

See the tabs for the individual citation metrics for detailed instructions on finding each one.

Other sources for finding citation metrics include Google Scholar and the altmetrics sites.

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Molly Strothmann

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Citation Searching and Bibliometric Measures: Home

A discussion on topics such as the h-index, Eigenfactor, Impact Factor, Journal Citation Reports, and other tools.

| Home ▾ | Citation Searching | Citation Measures and Tools ▾ | Journal Measures and Tools ▾ | Retrieving Citation Counts ▾ |

Law of Scattering

80% of the citations come from about 20% of the journals cited, identifying a core list for a local journal collection.

- - Chung, H. (2007)
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Sample Bibliometric Map

Eigenfactor Social Science Citation Relationships 2004

(click on image to enlarge)

Thomson Reuters (ISI Web of Knowledge)

What is Bibliometrics?

- The branch of library science concerned with the application of mathematical and statistical analysis to bibliography; the statistical analysis of books, articles, or other publications. ("bibliometrics, n.". OED Online. December 2011. Oxford University Press.)

- In other words…data about publications, or citation frequency.

- Scientometrics is the branch of information science concerned with the application of bibliometrics to the study of the spread of scientific ideas; the bibliometric analysis of science. ("scientometrics, n.". OED Online. December 2011. Oxford University Press.)

Why is this important?
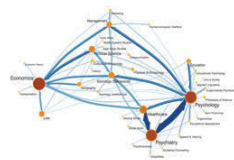
A student asks you "What are the best journals in the field of Anthropology?"

A professor asks you "Who is citing my articles? How many times have I been cited?"

A student asks you "How do I know this article is important?"

A professor asks you "Which journal should I publish in?"

Bibliometrics effects:

- People
- Journal collections
- Research Funding
- Tenure
- Expertise status in the field
- Finding others in the field/subject area (using citation searching)

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For Librarians

An Open Access toolkit to support bibliometrics training and awareness offered by four Irish academic libraries (Dublin City University, Dublin Institute of Technology, National University of Ireland, Maynooth, and University College Dublin) and funded by the Irish National Digital Learning Resources (NDLR).

All materials are available under Creative Commons license, enabling you to select, edit and re-package them to suit your local needs.

- MyRI (My Research Impact)

New Directions for Altmetrics

New research is being done to define 'altmetrics' that also define a researcher's impact. The method of communication can vary but is outside of the traditional journal article.

The University of Pittsburgh has partnered with Plum Analytics to provide alternative methods of measuring research output. We are pioneering this effort.

- Pitt-Plum Analytics Press Announcement
  University of Pittsburgh becomes the first institution to adopt Plum Analytics to provide other metrics for research output.

- Altmetrics in the wild: Using social media to explore scholarly impact
  By Jason Priem, Heather A. Piwowar, Bradley M. Hemminger.

  "In growing numbers, scholars are integrating social media tools like blogs, Twitter, and Mendeley into their professional communications. The online, public nature of these tools exposes and reifies scholarly processes once hidden and ephemeral. Metrics based on this activities could inform broader, faster measures of impact, complementing traditional citation metrics."

- Scholars Seek Better Ways to Track Impact Online
  By Jennifer Howard in the Chronicle of Higher Education, January 29, 2012

  "An approach called altmetrics—short for alternative metrics—aims to measure Web-driven scholarly interactions, such as how often research is tweeted, blogged about, or bookmarked."

- Citation by Citation, New Maps Chart Hot Research and Scholarship's Hidden Terrain
  By Jennifer Howard in the Chronicle of Higher Education, September 11, 2011

  "Imagine a Google Maps of scholarship, a set of tools sophisticated enough to help researchers locate hot research, spot hidden connections to other fields, and even identify new disciplines as they emerge in the sprawling terrain of scholarly communication."

Handout

Here is a printable synopsis of the major concepts discussed in this guide.

- Citation Searching and Bibliometric Measures

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Subjects: Information Sciences, Research Skills   Tags: author impact, bibliometrics, citation searching, journal impact

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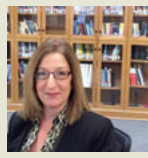| Home | Scopus | Web of Science | Google ▾ | Journal Metrics | Altmetrics | Additional Resources | SU Recent Publications |

Citation Metrics

Citation analysis is a quantifiable measure of academic output and may help inform decisions on promotion and tenure. This guide is designed to help faculty members and librarians use and understand the tools available to us. We are fortunate to have access to the top paid resources used for citation metrics – Web of Science, Scopus and Journal Citation Reports.

We need to be aware of the limitations and incongruities of citation metrics. The databases referenced above, and including Google Scholar, do not correct errors in citing papers. This means that one paper may be cited many different ways and appear as separate entries in these tools. Also, author and institutional naming inconsistencies complicate these analyses.

Comparisons between these tools should be avoided. The databases use different sources to generate data and some are more comprehensive than others. In addition, the literature suggests that these tools are skewed towards the STM (science, technical and medical) community of scholars.

The recommended methods for citation analyses are detailed this guide. Another useful metric is the h-index which can be generated in both Web of Science and Scopus. The h-index is defined as:

A scientist has index h if h of [his/her] N_p papers have at least h citations each, and the other $(N_p - h)$ papers have at most h citations each.

Information for Authors

ORCID

Connecting Research and Researchers

ORCID - Open Researcher ID - is an initiative to provide researchers and scholars with a persistent, unique identifier. This will enable individuals to get recognized for all their scholarly output, in both established and emerging media. With broad-based support from publishers, academic institutions, and funders, ORCID registration and services are free to individuals. Sign up here: http://about.orcid.org/.

Comparison across Databases

Useful data can be found in each tool but direct comparisons across databases are problematic. These resources use different pools of data, date ranges and may interpret citations differently. Correct attribution of authorship can also cause reporting errors. Take control of your scholarly output - check your author profiles and register for an ORCID ID.

	Times cited	H-Index
Scopus	135	7
Web of Science	85	11
Google Scholar	279	10

This chart illustrates reporting differences. Exercising as much consistency as possible, the same author was profiled (11/2012) in each resource. The varied results are displayed above.

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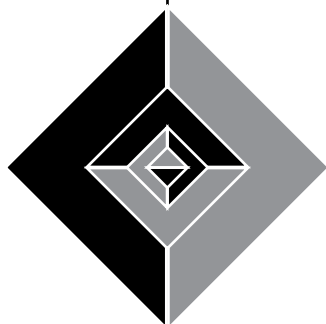
SELECTED RESOURCES

Books and Journal Articles

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Resources for Current Awareness

Associations

American Evaluation Association
http://www.eval.org/

National Information Standards Organization (NISO)
http://www.niso.org/home/

Society for Scholarly Publishing
http://www.sspnet.org/

Scholarly Publishing and Academic Resources Coalition (SPARC)
http://www.sparc.arl.org/

Blogs

Impact blog (London School of Economics and Political Science)
http://blogs.lse.ac.uk/impactofsocialsciences/

ImpactStory blog
http://blog.impactstory.org/

A Librarian by Any Other Name
http://librarianhats.net/

Scholarly Kitchen
http://scholarlykitchen.sspnet.org/

Discussion Lists

ACRL Scholarly Communication (sponsored by American Library Association)
http://lists.ala.org/wws/info/scholcomm

Medlib-L (sponsored by Medical Library Association)
https://www.mlanet.org/discussion/medlibl.html

Sigmetrics (Virtual Special Interest Group of the American Society for Information Science and Technology)
http://web.utk.edu/~gwhitney/sigmetrics.html

Journals

Evidence Based Library and Information Practice
http://ejournals.library.ualberta.ca/index.php/EBLIP

JASIST
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Research Evaluation
http://rev.oxfordjournals.org/

Scientometrics
http://link.springer.com/journal/11192