Making Connections: ETDs, Academe, and the World of Work

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Coalition for Networked Information (CNI)

- Founded in 1990
- Joint program of ARL and EDUCAUSE
- Focus on content, organizations, technologies, and policy in the Internet environment – related to scholarly communication and teaching & learning

WWW.CNI.ORG
Mission, Goals, and History

Our Mission

The Networked Digital Library of Theses and Dissertations (NDLTD) is an international organization dedicated to promoting the adoption, creation, use, dissemination, and preservation of electronic theses and dissertations (ETDs). We support electronic publishing and open access to scholarship in order to enhance the sharing of knowledge worldwide. Our website includes resources for university administrators, librarians, faculty, students, and the general public. Topics include how to find, create, and preserve ETDs; how to set up an ETD program; legal and technical questions; and the latest news and research in the ETD community.

The NDLTD Brochure (PDF) is available here.

A short document on the 20th Anniversary of NDLTD (PDF)

Our Goals

- To be the leading international organization for promotion of ETDs worldwide.
- To provide useful and innovative resources, standards, and technology for development of ETD programs.
- To encourage institutions of higher education to use NDLTD resources and participate in NDLTD activities.
Today’s World for Graduate Students

• What does the employment market look like for those completing graduate degrees?

• What kinds of things will position your institution’s graduates for jobs?

• Whose responsibility is it to prepare students for today’s job market?
What Types of Careers

- Academic
  - Full-time tenure track
  - Adjunct
  - Technical/research support
- Government
  - Research
  - Technical support
  - Policy
- Non-profit
  - Research
  - Policy
  - Service delivery
- Business
  - Research
  - Product development
  - Entrepreneur
- Communication
  - Traditional media
  - Digital formats
Do most Ph.D. programs prepare graduates for various types of position?

https://www.nasa.gov/

https://www.si.edu/about/leadership
Is there truly momentum for change in preparation of graduate students?

The New Ph.D.

Momentum grows to rewrite the rules of graduate training

By Marc Parry | FEBRUARY 16, 2020

https://www.chronicle.com/article/the-new-ph-d/
“Progressive departments, backed by foundation and federal-government money, are granting credit for activities that wouldn’t have counted toward the doctorate in the past. Collaborations with organizations off campus, portfolios instead of comprehensive exams, courses for scientists in the business side of research. A podcast, a rap album, or a comic book instead of a traditional dissertation.”

NIH Broadening Experiences (BEST)

- “Dr. Fuhrmann highlights that the national conversation is progressing and moving away from “should we be providing career development to PhDs?” to “how do we do so effectively?” In the present academic environment, trainees often lack knowledge about available career options. Furthermore, trainees can be unprepared to chart their own career path, to develop professional skills, or to cultivate other skills specific to their intended career path.”

https://commonfund.nih.gov/workforce/programhighlights
The Realities of Doctoral Education

“there is a need to enhance the doctoral experience to meet the developing needs for our knowledge-driven economies”

“While faculty generally recognize that trainees need to develop skills that are applicable to careers inside and outside of academia, they had mixed opinions as to whether they were confident in their own knowledge of these skills, and the ability to keep trainees informed about fields different from academe.”

Faculty perceptions and knowledge of career development of trainees in biomedical science: What do we (think we) know? https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6353103/
AHA Career Diversity 5 Skills

- **COMMUNICATION**, in a variety of media and to a variety of audiences
- **COLLABORATION**, especially with people who might not share your worldview
- **QUANTITATIVE LITERACY**: a basic ability to understand and communicate information presented in quantitative form, i.e., understanding that numbers tell a story the same way words, images, and artifacts do
- **INTELLECTUAL SELF-CONFIDENCE**: the ability to work beyond subject matter expertise, to be nimble and imaginative in projects and plans
- **DIGITAL LITERACY**: a basic familiarity with digital tools and platforms

https://www.historians.org/jobs-and-professional-development/career-diversity-for-Historians/career-diversity-resources/five-skills
21st Century Skills for Graduate Students

- Employing digital tools and data management practices
- Making choices within the scholarly communications system
- Understanding reputation management
- Communicating research findings to the public
Employing Digital Tools & Data Management Practices

- Identifying key digital tools used in the discipline
  - In research
  - In communicating research

- Understanding which tool(s) might assist in answering new questions

- Practicing good data management
  - Understanding relationships of data and software
  - Issues of replicability and reproducibility
  - Open Data policies
Instructional Programs

“Foundations for Research Computing is the result of a multi-year, multi-stakeholder effort to respond to a need for elemental research computing knowledge as a graduate student core competency. Supported by the graduate schools, campus IT, the office of research, and the libraries, Foundations for Research Computing translates a faculty-led vision for critical instructional intervention into several coordinated services and initiatives…”

https://www.cni.org/topics/teaching-learning/foundations-for-research-computing-collaborating-to-provide-student-support-at-scale
Providing Technology Education

The New Normal: Why Libraries are Teaching AI, ML, DH, NLP, VR

Providing Education and Services

Managing data and information

- Data Management & Curation
- Citation Management
- Systematic Review Support
- Open Science Framework
- GRAD 5024
- Data Consulting
- Statistics Consulting
Providing Toolkits

https://libguides.umn.edu/datavisservicestoolkit
Providing Resources on Open Data

Share & Archive your Data

Making your data openly accessible is not only important for ensuring scientific integrity and promoting open inquiry, but it is also required and highly encouraged by funding agencies and publishers.

For many disciplines, research data are commonly deposited in and shared through a disciplinary repository. Review the Registry of Research Data Repositories to determine whether an appropriate repository is available to you.

Through the SMARTech Repository, we are able to support the long-term preservation and sharing of certain types of research data. SMARTech is an open access repository, so cannot accommodate any proprietary or otherwise confidential research data.

The Georgia Tech Library is able to support the long-term preservation and sharing of certain types of research data in the SMARTech Repository. Review the SMARTech Data Submission Guidelines.

Archiving and preserving your research data involves more than keeping your data files on your lab server. In addition to capturing information about your data, you should consider the following:

- What formats will you choose to store your data?
- How long will you retain your data?

https://www.library.gatech.edu/data-plan#training
Making Choices within the Scholarly Communications System

- What are your graduate students being told about the acceptability of various digital formats for communicating research in their field?
- Are graduate students able to identify publication targets for their work?
- Are students genuinely informed about intellectual property issues for their own and others’ work?
Howard Earl Fields

Howard Earl Fields III, Ph.D. Education (2017) / University of Missouri–St. Louis

Howard Fields’ written dissertation was accompanied by a documentary, which was titled, “The Art of the Student Transfer Program.” This feature-length documentary examined the disparities in education for Black students living in poverty. Dr. Fields takes a look at a St. Louis, Missouri law, allowing students from failing districts to transfer to higher-performing neighboring districts. He examines this law through an often-overlooked perspective: that of the families involved.

Through his research, it is evident that these disparities in educational equality have a long and wide-spread history. However, as a former employee of one of the failing districts, the topic hit on a personal level as well.

While writing, and transcribing interviews with families would have been a sufficient route to take, Fields’ incorporated his passion for cinematography, and the stories that are better captured through film, to create a documentary that outlines the Student Transfer Program, its impact on the St. Louis area, and three families directly involved. The unique perspectives of each of these families shed light on this controversial topic that the media does not always fully represent.
The long-lived burial site of Saqqara, Egypt, has been studied for more than a century. But the site we visit today is a palimpsest, the result of thousands of years of change, both architectural and environmental. Elaine A. Sullivan uses 3D technologies to peel away the layers of history at the site, revealing how changes to sight lines, skylines, and vistas at different periods of Saqqara’s millennia-long use influenced sacred ceremonies and ritual meaning at the necropolis.

The author considers not just individual buildings, but re-contextualizes built spaces within the larger ancient landscape, engaging in materially-focused investigations of how monuments shape community memories and a culturally-specific sense of place. Despite our modern impression of the permanent and enduring nature of the site, this publication instead highlights that the monuments and their meanings were fluid, as the Egyptians modified, abandoned, resurrected, forgot, or incorporated them into new contexts. Virtually placing the reader within a series of landscapes no longer possible to experience, the author flips the top-down view prevalent in archeology to a more human-centered perspective, focusing on the dynamic evolution of an ancient site that is typically viewed as static.

Elaine A. Sullivan is Associate Professor of History at the University of California, Santa Cruz.

“A huge boon to Egyptian archaeology, it will take the field decades to exhaust the use of this project.”

Laurel Besock, Brown University

https://constructingthesacred.org/
Making Choices on Article Submission

Identify and evaluate journals

How can you identify journals to publish your work in? To start, look at the journals you read, that your colleagues read and publish in, and at who you cite in your work. Is there a pattern to those journals?

When considering a journal as a potential place to publish, ask yourself:

- Does the subject matter covered in the journal match your scholarship?
- Do the types of articles published and article length guidelines match with what you want to submit?
- Are you or your colleagues familiar with the journal? Look at its affiliation and publisher, and the editorial board and authors who publish in it.

Any questions?

Tisch can help with any questions or concerns that come up for you in the course of the publishing process.

Use the tabs on the left to browse the resources in this guide, or get in touch with us at any time.
Advising on OA Publishing

https://guides.library.cornell.edu/openaccess/publish
Resources on Open Access

https://sparcopen.org/our-work/r2rc/

https://www.opencon2018.org/
Institutional Resources

- “The Harvard Library Copyright Advisor program was established in 2014 to create a culture of shared understanding of copyright among Harvard faculty, students, and staff in support of pedagogy, research, and innovation”.

http://copyright.lib.harvard.edu/
Understanding Reputation Management

- Academic/professional identity
- Impact of research
- Reach of research
- Managing social media presence
Establishing an ID

https://orcid.org/about

https://www.slideshare.net/ORCIDSslides/20140423-webinar-sinche
Making Work Visible

https://www.scopus.com/
Understanding Impact Factor

Measuring Your Impact: Impact Factor, Citation Analysis, and other Metrics: Journal Impact Factor (IF)

Overview of h-index, Eigenfactor, Impact Factor (IF), Journal Citation Reports, Citation Analysis, and other tools.

About Journal Impact

Impact Factor - What is it? - Why use it?

The impact factor (IF) is a measure of the frequency with which the average article in a journal has been cited in a particular year. It is used to measure the importance of a journal by calculating the

Tools to Measure Journal Impact (Impact Factor)

- Journal Citation Reports (more)
- SCImago Journal Rank (SJR) (more)
- SNIP (Source Normalized Impact per Paper)

Chat with a Librarian

https://researchguides.uic.edu/if/impact
Tracking Impact

Kudos Pro

Your research communication and engagement platform for knowledge exchange.

With Kodos Pro you build a global audience for your research projects and track and report on all your groups' communication and impact activities, together in one place.

Get Started  Start Complimentary Access
Altmetrics

Who’s talking about your research?

Thousands of conversations about scholarly content happen online every day. Altmetric tracks a range of sources to capture and collate this activity, helping you to monitor and report on the attention surrounding the work you care about.

https://www.altmetric.com/
Impact Challenge

This is an online challenge designed to help researchers enhance the impact and visibility of their research. Each day during the week of February 3-7, 2020, participants will receive an email with one or two tasks to complete that will help you to enhance your scholarly profile, along with links to instructions and advice for completing them. Work at your own pace; there is no deadline for completion of the tasks.

Who: Ohio State Faculty, Postdocs, and Graduate Students
When: Self-paced. February 3 – February 7, 2020
Where: Online only, via email prompts

https://library.osu.edu/events/5-day-research-impact-challenge-online-workshop
The grad student’s social media starter pack

Is it really worthwhile for grad students aspiring to academics or industry to have a social media presence? What should my social media presence look like? — Social media un-savvy

Hi there,

Thanks for reaching out! Ultimately, I think the only answer to this is: it depends. It depends on your schedule, your priorities, your skills, your preferences... It depends on you, and what you want out of your academic journey and future career.

https://grad.uw.edu/the-grad-students-social-media-starter-pack/
Communicating Research Findings to the Public

- An increasing societal priority
- May be required as condition of some grant funding
- May be a key component of graduates’ jobs
- Includes communication in a variety of media
University Programs

https://www.cni.org/topics/scholarly-communication/tying-the-university-library-to-high-impact-research
Professional Association Programs

Train young researchers to effectively communicate about the value of eye and vision science

https://www.arvo.org/education/science-communication-training-fellowship/
Podcasts Based on Primary Sources

https://lsa.umich.edu/history/reverbeffect.html
ETD as a First Research Experience

- Has the purpose and function of the dissertation changed in the past 20 years?
  - Institution
  - School, department, program

- What kind of preparation should the dissertation experience provide for graduate students?

- Are the kinds of skills and capabilities emphasized in this presentation taken into account?
A Challenge

- Can we provide our graduate students with a systematic education in areas that are important for future scholars and professionals?
Roles and Responsibilities

- In your institution
  - Who has responsibility for education in these areas?
  - Who will advocate for incorporating these skills into graduate school education?
  - Who is responsible for implementing programs?
  - Is there good outreach to graduate students to heighten awareness of availability?
Moving Forward

- Bring together interested parties
- Survey what is currently available
- Develop plans and priorities, capabilities, responsibilities
- Seek support
- Communicate
Roles and Responsibilities

- In your institution
  - Can you leverage guides, tutorials, and other resources developed by other institutions?
  - Can you rewrite job descriptions to include responsibility for some priority areas for graduate students?
Roles and Responsibilities

- In your institution, what opportunities exist for collaboration among
  - Libraries
  - Graduate School
  - Office of Research
  - IT organization
  - Teaching & Learning Center
  - Others
In these uncertain times

• We owe it to our graduate students to provide a full education that prepares them for the workplace

• What actions can you take to make this a reality at your institution?
Thank you!

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- https://www.cni.org/about-cni/staff/joan-k-lippincott