

Exploring Global Connections

The Networked Digital Library of Theses and Dissertations (NDLTD) & The
United States Electronic Thesis & Dissertation Association (USETDA) Jointly
Present the 28th Annual ETD Symposium &
Fifteenth Annual U.S. Conference



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#ETD2025

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Dear Colleague,

The ETD - USETDA 2025 Conference Organizing Committee is pleased to welcome you to **ETD 2025**, the 28th international symposium on electronic theses and dissertations (ETDs) and **USETDA 2025**, the 15th national US conference on ETDs, a joint virtual event taking place via Zoom September 25-26, 2025. This conference is co-organized by the [USETDA](#) (United States Electronic Thesis and Dissertation Association) and the [NDLTD](#) (Networked Digital Library of Theses and Dissertations).

The conference theme, “Exploring Global Connections,” will delve into technology and academic processes and their impact on the creation and dissemination of scholarly work around the world. We will examine the present use and availability of ETDs and related initiatives. We will also explore new and emerging ETD practices, needs, and influences that inform administrative, graduate school, and library professionals.

This year’s program includes two interactive plenary panel discussions, two workshops, sixteen 50-minute in-depth presentations, user group meetings, and numerous networking opportunities. We will record all presentations via Zoom during the conference for post-conference access. You can view the entire conference session line up in our program schedule.

We invite you to explore the variety of presentations we are offering and encourage you to engage with colleagues in the global ETD community. We are all about learning and sharing with each other in a congenial atmosphere. We also hope that you will continue the conference excitement throughout the year by participating in our group activities, events, and meetings.

Should you have any questions, please feel free to contact us by email us at info@usetda.org.

ETD 2025-USETDA 2025 Conference Organizing Committee



Scan to link to the online program

ETD 2025 - USETDA 2025 Program Schedule

Thursday 9/25/25

Main Room

Breakout Room

11:00 AM - 1:30 PM

Workshop 1: **ETDs for Beginners** (Presented by John Hagen, USETDA, Ed Fox, NDLTD et al). Moderator: John Hagen. **Keywords:** electronic theses and dissertations, ETDs, workshop, program implementation.

1:30 PM - 2:00 PM

Break (Lunch)

2:00 - 3:30 PM

Plenary 1: (NDLTD Sponsor Welcome Message and Panel Discussion). **Oh, the Places You'll Go with Your Scholarly Works!** Panelists: Lily Compton and Kristin Terrill (Center for Communication Excellence, Graduate College Iowa State University) and Megan O'Donnell (University Library, Iowa State University). Moderator: Kim Fleshman. **Keywords:** research ethics, publishing basics, copyright, license, authorship, digital accessibility, literature review.

3:30 - 3:40 PM

Break

3:40 - 4:30 PM

Session 1: **Win-Win Apprenticeships : Team Cataloging ETDs at Two OhioLINK Libraries.** Presented by Michael Monaco (University of Akron) and Sevim McCutcheon (Kent State University). Moderator: G.W. Swicord. **Keywords:** metadata, cataloging, streamlining ETD processing, efficiencies, discoverability, best practices, training.

Session 2: **Enhancing Layout Understanding via Human-in-the-Loop: A User Study on PDF-to-HTML Conversion for Long Documents.** Presented by Chenyu Mao (Virginia Tech) and Edward Fox (Virginia Tech). Moderator: Teri Green. **Keywords:** ETD, deep learning, object detection, document layout analysis.

4:30 - 4:40 PM

Break

4:40 - 5:30 PM

Session 3: **Nobody Likes an Artichoke: Including Helpful Accessibility Techniques in ETD Instructions and Templates.** Presented by John Fudrow (University of Pittsburgh). Moderator: Kristin Terrill. **Keywords:** ETD, accessibility, theses, dissertations, formatting, scholarly publishing, instruction, tutorials.

Session 4: **Migrating Electronic Theses and Dissertations (ETDs) from a Locally Created Database to a Commercial Platform.** Presented by Elizabeth McDonald (University of Memphis). Moderator: Ruth Lu. **Keywords:** Electronic Theses and Dissertations, Migration, Metadata.

5:30 - 5:40 PM

Break

5:40 - 6:30 PM

Session 5: **Vireo 4 and More: Maturing an Open Source ETD Management System and Its Community.** Presented by Christopher Starcher (Texas Tech University), Frank Smutniak (Texas Digital Library) and Courtney Mumma (Texas Digital Library). Moderator: Lily Compton. **Keywords:** workflows, sustainability, accessibility, institutional repositories, open source, open access.

Session 6: **Enhancing ETD Topic Modeling: A Framework Integrating LLMs for Improved Digital Library Discovery.** Presented by Pradyumna Upendra Dasu (Virginia Tech), Satvik Chekuri (Virginia Tech), William Ingram (Virginia Tech University Libraries) and Edward Fox (Virginia Tech). Moderator: Erin Kaufman. **Keywords:** Topic Modeling, Natural Language Processing, Large Language Models, Electronic Theses and Dissertations, Digital Libraries, Information Storage and Retrieval.

6:30 - 7:00 PM

Opening Reception: Welcome, Announcements (Virtual)

Friday 9/26/2025

	Main Room	Session Room
11:00 AM - 1:30 PM	Workshop 2: AI-Facilitated Literature Review Workshop: A Hands-on Demonstration of Elicit . Presented by Kristin Terrill, Lily Compton and Maryam Saneie, (Iowa State University Graduate College). Moderator: Ramesh C Gaur. Keywords: Generative AI, Elicit, Literature Review, 3E Framework.	
1:30 - 2:00 PM	Break (Lunch)	
2:00 - 3:30 PM	Plenary 2 (ProQuest Sponsor Welcome Message and Panel Discussion). Open Science Across Borders: India vs. US Institutional Approaches . Panelists: Nabi Hasan (Indian Institute of Technology Delhi), Ginny Pannabecker, (Virginia Tech University Libraries). Moderator: Nabi Hasan. Keywords: Open Science, Research Accessibility, Collaborative Platforms, National Policies, Global Research Ecosystem, India-USA Open Science Landscape.	
3:30 - 3:40 PM	Break	
3:40 PM - 4:30 PM	Session 7: Digital Accessibility for LaTeX Theses and Dissertations . Presented by Kristin Terrill (Iowa State University) and Lily Compton (Center for Communication Excellence, Graduate College Iowa State University). Moderator: Teri Green. Keywords: digital accessibility, LaTeX, Overleaf, Adobe Acrobat.	Session 8: Variation in the Dissertation Writing in the Applied Science Fields (A Work in Progress) . Presented by Febriana Lestari (Iowa State University). Moderator: John Fudrow. Keywords: dissertation writing, macrostructure, linguistic variation.
4:30 - 4:40 PM	Break	
4:40 - 5:30 PM	Session 9: Developing Policy-Adjacent Language on Artificial Intelligence Use in Graduate Research . Presented by Ruth Lu and Greg Newton (Ohio University Graduate College). Moderator: Teri Green. Keywords: AI use in graduate research, Research writing practices, Policy vs. guideline from the Graduate College/Graduate School, Academic integrity, Ethical AI Use.	Session 10: Understanding Copyright Ownership for GenAI-generated Text in ETDs: Legal Framework and Challenges in Bangladesh . Presented by Dr. Md. Zillur Rahman (Librarian, Ah-sanullah University of Science and Technology). Moderator: Valerie Emerson. Keywords: Copyright Ownership, Copyright Law, GenAI, ETDs, Bangladesh.
5:30 - 5:40 PM	Break	
5:40 - 6:30 PM	Session 11: ETD Administrator User Group Meeting . Presented by Austin McLean, Mark Dill and Lane Bowman (ProQuest, part of Clarivate). Moderator: Lazarus Matizirofa. Keywords: ETD, Institutional Repository, Workflow tools, Copyright, Graduate School, Library.	Session 12: ETD Formatting User's Group Meeting . Presented by Sally Evans (George Mason University Libraries). Moderator: Teri Green. Keywords: Formatting, format review, users' group.
6:30 - 6:40 PM	Break	

Friday 9/26/2025		
	Main Room	Session Room
6:40 - 7:30 PM	Session 13: Community Engagement Group Meeting . Presented by Kristin Terrill (Iowa State University), Ruth Lu (Ohio University). Moderator: Teri Green. Keywords: ETD, engagement, community flash talks.	Session 14: AI-Driven Research Transformation in Bangladesh: A Study on the Integration of Machine Learning and Data Analytics in Scientific Discoveries . Presented by Dr. Md. Zillur Rahman (Librarian, Ahsanullah University of Science and Technology). Moderator: John Hagen. Keywords: Research Transformation, Machine Learning, Data Analytics, Scientific Discoveries, Bangladesh.
7:30 - 7:40 PM	Break	
7:40 - 8:30 PM	Session 15: National ETD Repositories in G20 Countries in Relation to NDLTD's Global ETD Metadata Repository . Presented by Sukanta Kumar Patra (Vidyasagar College for Women). Moderator: Ana Pavani. Keywords: ETD Metadata, NDLTD, FAIR, G20 Countries, SDG.	Session 16: Sharing Collaborative Approaches and Community Insights on ETD Management in Canada . Presented by Julia Gilmore, Scholars Portal. Moderator: John Hagen. Keywords: expert group, harvesting, workflows, community collaboration, survey findings, Canada, DSpace.
8:30 - 9:00 PM	Closing Session - ETD Leadership Awards Ceremony & Future Directions. Moderator: Ramesh C Gaur	

Thursday, September 25, 2025

11:00 AM - 1:30 PM (all times Eastern)

ETDs for Beginners Workshop.

John Hagen (United States Electronic Thesis and Dissertation Association (USETDA)), Edward Fox (Networked Digital Library of Theses and Dissertations (NDLTD)), Austin McLean (ProQuest, part of Clarivate), Thomas Dowling, (Wake Forest University Libraries), Kristin Terrill (Iowa State University Graduate College), Ruth Lu (Ohio University Graduate College), Sally Evans (George Mason University Libraries).

Moderator: John Hagen. Main Room.

Abstract. The successful implementation of electronic thesis and dissertation programs on campus can at first, seem to be a daunting task. This primer will prove extremely helpful in assisting you through this process. Armed with a team of experts, the “ETDs for Beginners” session will introduce you to concepts such as the myriad of free resources available through the USETDA and the NDLTD. Topics will include ETD implementation and political strategies, discussion of various models of homegrown ETD systems versus pre-packaged open source and commercial repository systems, ETD office automation strategies, the role of University libraries and graduate school in ETD program implementation and archiving, intellectual property issues, ETD Lifecycle Management as well as explore the usefulness of and approaches to consortia and networking to build ETD programs. This 2.5 – hour workshop is open to beginners as well as veterans who would like a refresher on the latest basic ETD concepts and resources. Get more out of attending the ETD Conference by attending this free session.

- Thursday, September 25th from 11:00 AM – 1:30 PM Eastern (New York)
- Location: Virtual (Zoom)
- Session Organizer & Moderator: John Hagen, Renaissance Scholarly Communications / Executive Director – USETDA

11:00 – 11:20 Introduction and Brief History of the ETD Movement

Edward Fox, Executive Director – NDLTD

11:20 – 11:50 ETD Implementation Overview

John Hagen, Executive Director – USETDA

- Topics include ETD/IR terminology, program implementation planning, setting time lines, establishing initiatives, campus collaborations with graduate school, libraries and information technology divisions, appointing implementation committees, outreach and advocacy promotions, navigating politics, reviewing / selecting IR systems, providing resources and technical support for students, metadata, archiving/preservation, intellectual property and copyright issues, working with consortia, ETD Lifecycle Management, creating a roadmap to successful implementation and best practices.

11:50 – 12:10 ETD Submission Systems

Austin McLean, Senior Director, Partnerships, Dissertations & Theses – ProQuest, part of Clarivate

11:50 – 12:05

- Topics include ETD Administrator and ETD/IR program services

12:05 – 12:10

John Hagen, Executive Director – USETDA

- Topics include open source and commercial IR services including ETD-db (NDLTD), OpenETD (Rutgers University), Vireo (Texas Digital Library), commercial systems

12:10 – 12:20 Preservation Strategies

Edward Fox, Executive Director – NDLTD

- Topics include cooperative distributed and digital preservation services for ETDs and digital collections, the ETD Lifecycle Management and how institutions can participate.

12:20 – 12:40 Break

12:40 – 12:50 ETD Metadata / Union Catalog / IR Consortium Networks

Thomas Dowling, Director of Technologies, Wake Forest University Libraries

- Topics include breakdown of ETD metadata fields, its importance in uniform application and usage for distributed collections, and technical aspects of how to participate in digital library consortia as well as best practices for integrating multi-institutional IR networks.

12:50 – 1:05 Participation in Community Engagement Group / ETD Formatting User's Group / Regional ETD Associations and Digital Library Consortia

12:50 – 12:55 Kristin Terrill (Iowa State University Graduate College), Ruth Lu (Ohio University Graduate College)

- Topic: Community Engagement Group / Regional Networking

12:55 – 1:00 Sally Evans (George Mason University Libraries)

- Topic: ETD Formatting User's Group

1:00 – 1:05 John Hagen, Executive Director – USETDA

- Topics include rationale for sharing resources and best practices, how to form ETD networks with colleagues in your region and tips on how to organize state-wide / regional ETD Associations and activities / Social aspects of how to participate in digital library consortia.

1:05 – 1:10 Publishing and Resources for Professionals

Edward Fox, Executive Director – NDLTD

- Journal of Electronic Theses and Dissertations
 - o Resources for ETD professionals
 - o Types of articles and how to publish

1:10 – 1:30 Discussion / Wrap Up

Moderator, Panelists and Audience

Track: Workshops

Keywords: electronic theses and dissertations, ETDs, workshop, program implementation

2:00 - 3:30 PM

Oh, the Places You'll Go with Your Scholarly Works! (NDLTD Sponsor Welcome Message and Plenary Panel Discussion). *Lily Compton, Kristin Terrill (Center for Communication Excellence, Graduate College, Iowa State University) and Megan O'Donnell (University Library, Iowa State University)*. Moderator: Kim Fleshman. Main Room.

Abstract. This session describes the development of an open-access educational handbook that provides critical information on research ethics and publication, and offers a single, organized, and continuously updated resource.

Graduate students and early career researchers must produce and share their work while building their credibility. By engaging in high-level scholarship, researchers elevate their reputations and that of their institutions. However, they must navigate a complex array of entangled policies, systems, and norms, including publication ethics and integrity, copyright and reuse permissions, authorship, digital accessibility, and the emergence of large language models. The cost of inadequately educating and preparing graduate students on these topics is high. Research integrity investigations, authorship disputes, copyright violations, and digital remediation can all cost time, money, and/or reputation.

Our open-access handbook covers research publishing basics, ethics and regulations of research and publishing, technology for research publishing, and digital accessibility. We will discuss the three sections of the handbook, how the content was developed and piloted, and how the material has been improved via feedback from experts from across the university. Highlights include previews of content such as a detailed research publication flowchart, scenarios that show why certain policies and practices are necessary, and procedures for formatting articles.

Track: Panel

Keywords: research ethics, publishing basics, copyright, license, authorship, digital accessibility, literature review

3:40 - 4:30 PM

Win-Win Apprenticeships : Team Cataloging ETDs at Two OhioLINK Libraries. *Michael Monaco (University of Akron) and Sevim McCutcheon (Kent State University).* Moderator: G.W. Swicord. Main Room.

Abstract. OhioLINK is a consortium of 115 academic libraries and the State Library of Ohio that shares resources and infrastructure. In 2001 OhioLINK launched the ETD Center, a searchable repository of electronic theses and dissertations. The ETD Center can supply libraries with provisional bibliographic catalog records created from the metadata provided by the authors, which some libraries use to create full bibliographic records.

To maximize discovery of their graduate students' contributions to the scholarly record, both the University of Akron (UA) and Kent State University (KSU) Libraries mediate and enhance the automatically-created provisional bibliographic records, and contribute final records to the international OCLC WorldCat database, as well as to the consortial and local catalogs. Doing so according to international and consortial standards requires personnel with significant training, and the time of highly trained metadata and cataloging personnel is in short supply at both libraries. Independently, both UA and KSU developed similar solutions: train non-professionals with interest and aptitude. Staff and iSchool graduate students were trained to do quality control on descriptive data, do identity management on author and advisor names, and assign subject controlled vocabulary (LCSH, MeSH). Problems and authority work are either escalated to catalog librarians, or resolved collaboratively to serve as a learning experience for trainees.

This presentation focuses on how two institutions address the central problem of training library personnel to catalog the ETDs in an efficient manner. After an overview of the OhioLINK ETD context, presenters will provide examples of workflow efficiencies gained by tapping into underutilized sources of labor and talent. We will discuss best practices and lessons learned, and the outcomes for the students and staff that participated.

Lastly we will discuss future projects and possibilities. After OhioLINK's June 2025 migration to the Alma library service platform, we intend to explore options for increased discoverability within the Alma environment.

Track: Individual

Keywords: metadata , cataloging , streamlining ETD processing , efficiencies , discoverability , best practices , training

Enhancing Layout Understanding via Human-in-the-Loop: A User Study on PDF-to-HTML Conversion for Long Documents. Chenyu Mao (*Virginia Tech*) and Edward Fox (*Virginia Tech*). Moderator: Teri Green. Breakout Room.

Abstract. Document layout understanding often utilizes object detection to locate and parse document elements, enabling systems that convert documents into searchable and editable formats to enhance accessibility and usability. Nevertheless, the recognition results often contain errors that require manual correction due to small training dataset size, limitations of models, and defects in training annotations. However, many of these problems can be addressed via human review to improve correctness. We first improved our system by combining the previous Electronic Thesis/Dissertation (ETD) parsing tool and AI-aided annotation tool, providing instant and accurate file output.

Then we used our new pipeline to investigate the effectiveness and efficiency of manual correction strategies in improving object detection accuracy through user studies, including 8 participants, comprising a balanced number of four STEM and four non-STEM researchers, all with some background in ETDs. Each participant was assigned correction tasks on a set of ETDs from both STEM and non-STEM disciplines to ensure comprehensive evaluation across different document types. We collected quantitative metrics, such as completion times, accuracy rates, number of wrong labels, and feedback through our post-survey, to assess the usability and performance of the manual correction process and to examine their relationship with users' academic backgrounds. Results demonstrate that manual adjustment significantly enhanced the accuracy of document element identification and classification, with experienced participants achieving superior correction precision. Furthermore, usability feedback revealed a strong correlation between user satisfaction and system design, providing valuable insights for future system enhancement and development.

Track: Full Paper

Keywords: ETD, deep learning, object detection, document layout analysis

4:40 - 5:30

Nobody Likes an Artichoke: Including Helpful Accessibility Techniques in ETD Instructions and Templates. John Fudrow (*University of Pittsburgh*). Moderator: Kristin Terrill. Main Room.

Abstract. With the drought of time most students find themselves dealing with in their studies and research, finding the opportunity to teach them about why accessibility is important to their scholarly works became a cause for concern in our ETD Support services. We endeavored to enlighten the student on not only how to incorporate those standards into their workflows, but feel capable of performing a check on their works before submission. Through an evaluation of the minimum requirements for accessibility at our institution, and a comparison of how the current templates facilitated those aims, the University of Pittsburgh reverse-engineered the existing templates to include any areas that were in need of support.

Using a combination of LibGuides, video tutorials, workshops, formatting support services, and staff training; we are hoping to see a decrease in the amount of remediation needed in submitted ETD documents.

Track: Individual

Keywords: ETD, accessibility, theses, dissertations, formatting, scholarly publishing, instruction, tutorials

Migrating Electronic Theses and Dissertations (ETDs) from a Locally Created Database to a Commercial Platform. Elizabeth McDonald (*University of Memphis*). Moderator: Ruth Lu. Breakout Room.

Abstract. Libraries have traditionally housed print copies of theses and dissertations produced by students of the university. As theses and dissertations have shifted to a digital format, they are now one more collection that libraries must often migrate. Both data and metadata must be relocated when they are moved between platforms. The University of Memphis Libraries migrated their Electronic Theses and Dissertations from a locally created database to bepress' Digital Commons. This presentation will discuss the process involved and the issues encountered during the migration and follow up.

Track: Individual

Keywords: electronic theses and dissertations, migration, metadata

5:40 - 6:30 PM

Vireo 4 and More: Maturing an open source ETD management system and its community. Christopher Starcher (*Texas Tech University*), Frank Smutniak (*Texas Digital Library*) and Courtney Mumma (*Texas Digital Library*). Moderator: Lily Compton. Main Room.

Abstract. Vireo is a turnkey Electronic Thesis and Dissertation (ETD) Management System that addresses all steps of the ETD process, from submission to approval by the graduate office to publication in one or more institutional repositories. Students submit their digital theses and dissertations via a simple online interface, while graduate offices can manage the ETD approval process behind the scenes. Librarians can also use Vireo to share ETDs to an institutional repository like DSpace IR and/or create an export of theses and dissertations for submission to ProQuest.

Over the past several years, Vireo has evolved into a highly configurable, multi-workflow system. Led by its open source home at the Texas Digital Library (TDL) consortium, the community of users and developers has also expanded. Vireo Product Owner and Vireo User Group Steering Committee member, Christopher Starcher, has worked with TDL's Vireo OSS lead software developer, Frank Smutniak, to make engaging in the development process more inclusive. They've improved technical documentation and communication so it has become easier to welcome new contributors. Additionally, TDL has led efforts to improve sustainability and accessibility of the software. In particular, developers have implemented multiple accessibility recommendations. The Vireo Users Group Steering Committee has also formed a task force to help organizations comply with the new Department of Justice rule under Title II of the Americans with Disabilities Act (ADA), which has implications for the actual documents that are submitted by students through Vireo.

In this session, Starcher and Smutniak will showcase the evolution of Vireo ETD by highlighting key enhancements and new functionality introduced in the current version. They will also outline the roadmap for future development, focusing on strategies for growth and long-term sustainability of the Vireo project. The presentation will conclude with an interactive discussion, inviting audience feedback to help shape the future direction of Vireo based on community needs and priorities.

Track: Individual

Keywords: workflows, sustainability, accessibility, institutional repositories, open source, open access

Enhancing ETD Topic Modeling: A Framework Integrating LLMs for Improved Digital Library Discovery.

Pradyumna Upendra Dasu (Virginia Tech), Satvik Chekuri (Virginia Tech), William Ingram (Virginia Tech University Libraries) and Edward Fox (Virginia Tech). Moderator: John Hagen. Breakout Room.

Abstract. Introduction/Background:

Digital libraries face challenges managing scholarly collections, particularly Electronic Theses and Dissertations (ETDs). These collections represent knowledge across diverse disciplines, but their interdisciplinary nature complicates content discovery. Topic modeling helps uncover latent themes in large text corpora, enhancing organization and exploration. However, traditional models struggle with semantic richness in heterogeneous collections like ETDs, producing keyword lists lacking context and meaningful relationships. Recent advances in Large Language Models (LLMs) like GPT-4, Llama-3.2, and Mixtral-8x7b offer semantic capabilities that could address these limitations. This research explores how topic modeling methods, academic-specific preprocessing, and LLM integration can enhance topic coherence in ETDs, focusing on augmenting rather than replacing traditional approaches.

Methodology:

We employed a three-step framework to improve topic modeling for ETD metadata. First, we developed a custom preprocessing pipeline for academic content including keyword extraction, metadata integration, and specialized text cleaning procedures. Second, we evaluated five topic modeling architectures: traditional LDA, ProLDA, NeuralLDA, CTM, and BERTopic, testing various parameter configurations. Finally, we integrated LLMs (GPT-4, Llama 3.1, two variants of Llama 3.2, and Mixtral-8x7b) through prompt engineering to enhance topic representations. Performance was evaluated using coherence metrics, topic diversity measurements, embedding-based similarity assessments, and a preliminary user study (n=10).

Results:

Domain-specific preprocessing significantly improved topic modeling performance across all architectures. BERTopic achieved superior coherence (CV: 0.746-0.778) compared to traditional and neural approaches, while LDA maintained better topic diversity (>0.9) despite lower coherence. LLM integration enhanced topic interpretability without sacrificing computational efficiency. Performance analysis across LLMs showed semantic similarity scores between 0.758-0.829, with GPT-4 outperforming others while Llama 3.2-3B demonstrated competitive performance in specific contexts. Scalability testing on a large dataset (333,867 documents) maintained high coherence (CV: 0.7417) with optimal diversity at 75 topics. The preliminary user study findings confirmed a clear preference for LLM-enhanced topic representations over traditional keywords, with participants rating the enhanced versions significantly higher on clarity, accuracy, and usefulness metrics.

Conclusion:

This research demonstrates that combining customized preprocessing, advanced topic modeling, and LLM integration enhances thematic representation of ETDs in digital libraries. Our framework addresses limitations of traditional models by improving semantic coherence and interpretability. By augmenting rather than replacing topic modeling, we maintain computational efficiency while leveraging the semantic power of LLMs. These improvements have practical implications for digital library applications, potentially enhancing browsing, searching, and discovery mechanisms for complex academic collections. Future work should focus on expanding user evaluations, optimizing the framework for specific digital library implementations, and exploring integration with other information retrieval tasks. This research contributes to the evolving landscape of digital library technologies and provides a foundation for more effective exploration of heterogeneous scholarly content.

Track: Full Paper

Keywords: Topic Modeling, Natural Language Processing, Large Language Models, Electronic Theses and Dissertations, Digital Libraries, Information Storage and Retrieval

Friday, September 26, 2025

11:00 AM - 1:30 PM (all times Eastern)

AI-Facilitated Literature Review Workshop: A Hands-on Demonstration of Elicit. Kristin Terrill (*Iowa State University*), Lily Compton (*Iowa State University*) and Maryam Saneie (*Iowa State University*). Moderator: Ramesh C Gaur. Main Room.

Abstract. In this two-hour workshop, we will present our hands-on demonstration of Elicit, an innovative tool for streamlining literature search, information finding, and knowledge synthesis. The demonstration has been under development for 12 months under a faculty fellowship grant aimed at AI Across the Curriculum. The target audience is graduate students, postdocs, and early career researchers whose literature reviews function to ground their original research in their field. The workshop provides an introduction to generative artificial intelligence (GenAI) literacy for research and research integrity, then segues into a hands-on demonstration of Elicit. The demonstration draws on Boell and Cecez-Kecmanovic's (2014) literature review framework, which was developed to initiate novice scholars into the cyclical, iterative nature of the literature review process. Attendees will learn how Elicit can be integrated into a principled literature review process with a demonstration of three key functions of the tool: Find Papers, Extract Data, and List of Concepts. We will also illustrate how the 3E Framework (Terrill et al., 2024) can be used to judge the appropriateness of various uses of GenAI in academic scholarship. At the end of this workshop, attendees will be able to use several key features of Elicit to enhance the effectiveness and efficiency of their literature review process. They will also be able to describe the strengths and limitations of this tool. Finally, they will be able to evaluate GenAI tools with respect to a range of scholarly use cases.

References

Boell, S. K., & Cecez-Kecmanovic, D. (2014). A hermeneutic approach for conducting literature review and literature searches. *Communications of the Association for Information Systems*, 34, Article 12. DOI:10.17705/1CAIS.03412

Terrill, K., Compton, L., & Cotos, E. (2024). The 3E Framework: Effective, Efficient, and Ethical Uses of GenAI in Scholarly Work. <https://doi.org/10.31274/usp-20241210-1>

Track: Workshops

Keywords: generative AI, elicit, literature review, 3E framework

2:00 PM - 3:00 PM

Open Science Across Borders: India vs. US Institutional Approaches. Panelists: Nabi Hasan (*Indian Institute of Technology Delhi*), Ginny Pannabecker (*Virginia Tech University Libraries*). Moderator: Nabi Hasan. Main Room.

Abstract. Open science encompasses not only making scientific research and data accessible to all but also aspires to reusability of knowledge. Open Science is an umbrella term that includes open data, open-access publications, and collaborative research platforms.

In its Science, Technology, and Innovation Policy (STIP) 2020, India emphasizes that by adopting open science, India can contribute more effectively to global research, leading to faster innovation and solutions to local and international challenges. Open Science in India is about democratizing scientific research by making it accessible and collaborative, positioning the country as a rising scientific superpower. India has implemented key policies like the National Data Sharing and Accessibility Policy (NDSAP) and fostered institutional collaborations, with initiatives such as open-access journals and digital repositories like Shodhganga, the National Digital Library of India, the National Virtual Library of India, KrishiKosh, Science Central, DLI, the upcoming One Nation One Subscription, etc. India is the world's 3rd producer of scientific publications (Scopus) and 9th as per the WoS; India ranks number 15 and 17 globally for OA journals and OA repositories (OpenDoar), with a 23.44% proportion of OA publications as per the Web of Science and a 20.60% proportion of OA publications as per Scopus. SCImago Journal and Country Ranking Portal show that India is represented by 469 journals, with 190 (40.5%) being OA journals. India has a much higher share of OA journals than the major publishing countries.

Conversely, open science in the United States is revolutionizing research methodologies by enhancing transparency, collaboration, and accessibility. Principal activities encompass federal requirements for open access to publications and data, compliance with FAIR principles, citizen science endeavors, and the utilization of open-source platforms for data sharing and collaboration. The 2022 OSTP mandate requires that all government-sponsored research be readily accessible by 2026, highlighting a national dedication to this initiative. Nonetheless, obstacles such as financial sustainability, equality concerns, and cultural rejection persist. The US is positioned to spearhead advancing open research as a worldwide norm by overcoming these obstacles and promoting international cooperation. The open science movement in the USA is advancing rapidly, driven by federal policies, technological innovation, and grassroots efforts. While challenges remain, the country's robust research infrastructure and commitment to transparency and collaboration position it as a global leader in the open science revolution.

India and the USA exhibit divergent yet synergistic methodologies towards open science. India prioritizes democratization and accessibility via national policies, open-access repositories, and collaborative platforms, reflecting its ascendant position as a scientific authority, whereas the USA concentrates on transparency, innovation, and adherence to federal regulations, utilizing its formidable infrastructure to spearhead global open science initiatives.

The session proposes to showcase the two perspectives from India and the USA on open science from a library leader's point of view.

Session Description

This session titled "Open Science Among Researchers and Institutions: Indian vs. US Perspectives" examines the transformative influence of open science from the viewpoints of India and the United States. This session explores how both nations are advancing the global open scientific movement, each employing a unique methodology. India prioritizes the democratization of scientific research via national regulations, open-access repositories, and collaborative platforms, establishing itself as an emerging scientific superpower. Simultaneously, the USA, already an established scientific superpower, emphasizes transparency, innovation, and federal directives to transform research methodologies and spearhead the global open scientific movement. Participate in exploring the similarities and differences in the open scientific trajectories of these two nations, as given from the viewpoint of two different library leaders.

Learning Objectives

1. Upon completion, participants will have a better understanding of the divergent aspects of open science in India and the USA, encompassing national legislation, open-access platforms, and collaborative initiatives that enhance research accessibility and innovation.
2. Upon completion, participants will have with them an analysis of the obstacles and opportunities encountered by both nations in promoting open science, and their approaches to resolving concerns such as equity,

3. Upon completion, participants will have some practical exposure to the functions of libraries and library leaders in promoting open science, facilitating knowledge exchange, and enhancing the global research ecosystem. These outcomes will be supported by the data to be used from Scopus, Web of Science, Policy notifications and implementations from both countries as proposed to be presented in analyzed form in the session.

Track: Panel

Keywords: open science, research accessibility, collaborative platforms, national policies, global research ecosystem, India-USA open science landscape

3:40 PM - 4:30 PM

Digital Accessibility for LaTeX Theses and Dissertations. *Kristin Terrill (Iowa State University) and Lily Compton (Iowa State University).* Moderator: Teri Green. Main Room.

Abstract. In this presentation we will map out the challenging terrain of implementing a digital accessibility mandate at an institution where nearly 25% of submitted electronic theses and dissertations are authored using LaTeX. Learning objectives for this presentation include recognizing the unique strengths and weaknesses of LaTeX, identifying technical characteristics of LaTeX that engender accessibility problems, and describing institutional constraints that threaten compliance with accessibility policies. LaTeX is a programming language used for creating documents, especially those containing technical and specialized typography. Many scholars in math, statistics, and engineering disciplines use LaTeX for document preparation. A significant limitation of LaTeX is its incompatibility with digital accessibility features of PDF, namely, tagging. Accessibility tagging refers to PDF markup that enables assistive devices, e.g., screen readers, to interpret visually conveyed information within a document, including features like section headings, tables, and figures. We will provide an overview of the ongoing work by The LaTeX Project, led by Frank Mittelbach, to develop a way of exporting tagged PDFs with LaTeX. Despite admirable strides made by this project in the past several years, their current guidelines cannot be easily integrated into our institution's Overleaf thesis/dissertation templates. Another tack is to remediate LaTeX PDFs in Adobe Acrobat. We will describe our progress toward securing Adobe Acrobat licenses for students who need that software to remediate their LaTeX theses and dissertations. Additionally, we will discuss some strategies by which we are attempting to bridge the Adobe Acrobat skill gap.

Ultimately, we will summarize outstanding institutional needs, such as dedicated resources for instruction and support for digitally accessible LaTeX PDFs, and gaps in coverage related to communicating with graduate student LaTeX users, providing Adobe Acrobat DC Pro licenses where needed, and troubleshooting problems with the Acrobat automatic tagger that are specific to LaTeX-exported files. We will present a proposal for a workable solution that will best serve all stakeholders: graduate students and faculty who use LaTeX, institutional administrators responsible for enforcing federally-mandated policies, and users who rely on assistive technology to access emerging scholarship. In short, this proposal involves communicating with LaTeX users with timely explanations of what is required for their thesis/dissertation submission and presenting them with the practical ramifications of choosing between LaTeX and Word.

Track: Individual

Keywords: digital accessibility, LaTeX , Overleaf , Adobe Acrobat

Variation in the Dissertation Writing in the Applied Science Fields (A Work in Progress). Febriana Les-tari (*Iowa State University*). Moderator: John Fudrow. Breakout Room.

Abstract. Dissertation writing, a high-stakes academic genre, is both an essential requirement for Ph.D. completion and a professional gateway in many institutions. However, this writing capstone often poses challenges for graduate students, particularly those from diverse linguistic backgrounds. As doctoral programs worldwide continue to expand, they attract increasing numbers of international students whose first language is not English (National Science Foundation, 2024; Shen et al., 2019), making linguistic challenges a critical yet often overlooked issue in dissertation writing. However, the dissertation writing resources remain insufficient and commonly do not consider the variation across and/ or within disciplines. At the same time, research suggests that dissertation writing has evolved over the years (Paltridge & Starfield, 2024). My preliminary findings on dissertation macrostructures—global rhetorical organizations of texts—indicates several variations across disciplines and even within the same discipline. Building on this, the present study aims to inductively explore how dissertation macrostructures in the Applied Sciences look like. The findings from this stage will inform the development of a dissertation writing corpus, which will then be analyzed using multidimensional analysis (a multivariate statistical analysis; see Egbert & Staples, 2019) to examine linguistic variation. This study is expected to provide insights into the available macrostructural and linguistic variation for dissertation writing, offering implications for both doctoral education and academic writing research.

Track: Individual

Keywords: dissertation writing, macrostructure, linguistic variation

4:40 - 5:30 PM

Developing Policy-Adjacent Language on Artificial Intelligence Use in Graduate Research. Ruth Lu (*Ohio University*) and Greg Newton (*Ohio University*). Moderator: Teri Green. Main Room.

Abstract. Artificial Intelligence (AI) has rapidly transformed how knowledge is produced, especially in academic contexts. With the increasing presence of generative AI (GenAI) tools in graduate research, institutions must grapple with questions surrounding their appropriate and ethical use. At Ohio University (OHIO), this conversation is especially timely. Faculty, graduate students, and administrators are actively discussing AI's role in shaping research and writing practices, and how institutions might respond—not by policing, but by guiding.

Rather than imposing strict policies, our Graduate College is taking a collaborative, reflective approach. We are observing emerging practices, studying how peer institutions are developing guidelines, and thinking critically about how to adapt these models to our own context. We are not simply reacting to change—we're attempting to shape a thoughtful and inclusive framework for it.

Before drafting any formal recommendations, we are posing foundational questions to our stakeholders:

- Should this take the form of a formal policy or a set of evolving guidelines?
- Who is responsible for enforcement or explanation of such guidance?
- What constitutes a "first draft," especially across different disciplines?
- How do we define "editing" when GenAI is involved?

We are also examining the tools graduate students are currently using—such as ChatGPT, Copilot (institutionally licensed and secured), and Gemini—and considering how these tools are integrated into their research workflows.

This session will share our working draft of policy-adjacent language and invite feedback from peer institutions. Our goal is to collaboratively refine an approach that supports both research integrity and student innovation, while also recognizing disciplinary differences and the evolving AI landscape. We hope to spark meaningful dialogue around best practices for teaching GenAI use, prompt engineering, and building a shared understanding of AI's role in graduate scholarship.

Track: Research Commentary

Keywords: AI use in graduate research, research writing practices, policy vs. guideline from the graduate college/graduate school, academic integrity, ethical AI use

Understanding Copyright Ownership for GenAI-generated Text in ETDs: Legal Framework and Challenges in Bangladesh. Dr. Md. Zillur Rahman (*Librarian, Ahsanullah University of Science and Technology*). Moderator: Valerie Emerson. Breakout Room.

Abstract. Declaration : AI has been used to generate this article

Introduction/Background

Generative AI (GenAI) tools, such as those used for generating text, have become increasingly popular in academic research, particularly in the creation of Electronic Theses and Dissertations (ETDs). These AI tools can produce significant portions of text, raising important questions about copyright ownership. Traditionally, copyright laws grant ownership of creative works to human authors, but it's unclear who owns the rights to works created by AI. This issue is particularly pressing in Bangladesh, where copyright laws are still evolving, and academic regulations regarding AI use are not fully established. As AI-generated content becomes more common, understanding how copyright laws apply to such content in ETDs is crucial for researchers and institutions in Bangladesh.

Methodology

This study takes a qualitative approach to examine the copyright implications of AI-generated content in ETDs in Bangladesh. It involves reviewing Bangladesh's existing copyright laws, such as the Copyright Act of 2000, and considering how they apply to AI-generated text. Additionally, the research includes interviews with legal experts, academics, and university officials to better understand the practical challenges surrounding the use of AI tools in academic work. Secondary research is also conducted, reviewing articles, legal documents, and reports on the copyright issues related to AI-generated content.

Results

The research found that current copyright laws in Bangladesh do not specifically address the issue of content created by AI. According to the Copyright Act of 2000, only human creators are recognized as authors, leaving a gap in the law when it comes to works generated by machines (Bangladesh Copyright Act, 2000). Legal experts interviewed for the study agree that it's unclear who should own the rights to AI-generated content—whether it should be the person who created the AI, the person using the AI, or the institution that owns the AI. Furthermore, many universities in Bangladesh do not have clear policies for handling AI-generated text in ETDs, which could lead to issues like plagiarism or unintentional copyright violations. Additionally, plagiarism detection systems in Bangladesh's academic institutions are often not equipped to identify AI-generated content, making it difficult to enforce copyright laws and uphold academic standards.

Conclusion

Bangladesh's current copyright laws are not well-suited to deal with the complexities of AI-generated content, especially in academic settings like ETDs. There is a clear need for legal reform to clarify ownership and authorship issues related to AI tools. Universities in Bangladesh must develop clear guidelines on the use of AI-

generated content in academic work to prevent misuse and to ensure that students and researchers understand their rights and responsibilities. The study also recommends that institutions invest in advanced plagiarism detection technologies that can identify AI-generated content. This would help maintain academic integrity while ensuring that copyright issues are properly addressed.

Track: Full Paper

Keywords: copyright ownership, copyright law, GenAI, ETDs, Bangladesh

5:40 - 6:30 PM

ETD Administrator User Group Meeting. Austin McLean (*ProQuest, part of Clarivate*), Gilia Smith (*ProQuest, part of Clarivate*) and Mark Dill (*ProQuest, part of Clarivate*). Moderator: Lazarus Matizirofa. Main Room.

Abstract. We invite new and prospective users to participate in an interactive discussion of the free to authors and universities ETD Administrator workflow and management system. Learn about and put forward ideas for new development and improvements for this workflow tool used by over 800 universities. Share best practices and learn how to get the most from this system, including populating your institutional repository. The ETD Administrator User Group Meeting has been a hallmark of the USETDA conference for over 10 years, and we look forward to continuing discussions with the community.

Track: Individual

Keywords: ETD, institutional repository, workflow tools, copyright, graduate school, library

ETD Formatting User's Group Meeting Sally Evans (*George Mason University Libraries*). Moderator: Teri Green. Breakout Room.

Abstract. The United States Electronic Thesis and Dissertation Association (USETDA) founded the ETD Formatting Users' Group in 2021 to provide a platform and a source of support and advice to reviewers of theses and dissertations. At each yearly conference, the group will meet to discuss the past year's challenges, issues, and successes in the field, and to share knowledge and resources with colleagues. Furthermore, we will consider the future of formatting and format reviews: How is our field changing? How should our field change? Please join us as we present issues, share solutions, and learn from one another.

Track: Individual

Keywords: formatting, format review, users' group

6:40 - 7:30 PM

Community Engagement Group Meeting Kristin Terrill (*Iowa State University*), Ruth Lu (*Ohio University*). Moderator: Teri Green. Main Room.

Abstract. The USETDA Community Engagement Group was formed in 2021 and focuses on identifying opportunities for members to learn more about important topics in the ever-changing thesis landscape, promoting professional development among members, and creating a space for networking. At this conference, we'll host five -minute flash talks so that our members can share some of their innovative ideas, topics they are exploring, and new discoveries.

Track: Flash Talk

Keywords: ETD, engagement, community

FLASH TALKS:

Sharing Embargo Information with Graduate Students Attending a Dissertation Writers Retreat. Elizabeth McDonald (*University of Memphis Libraries*). Main Room.

Abstract. Graduate students are often allowed to embargo their electronic theses and dissertations. Why, when, and how this can be accomplished is not always clear. The University of Memphis Libraries hosts a Dissertation Writers Retreat for graduate students. This talk will explore the motivation for the presentation and content covered during a session of the retreat.

Track: Flash Talk

Keywords: Electronic Theses and Dissertations, Embargo, Graduate Students

Expanding Knowledge Landscapes: Supporting Non-Traditional Theses at UCalgary. Kathryn Ruddock (*University of Calgary*).

Abstract. The prevalence of alternative theses was unknown at our institution. Over two years, a multidisciplinary research team examined examples, support needs, and barriers for graduate students pursuing non-traditional thesis pathways at the University of Calgary. We found that interest in these forms is growing, yet students and faculty often hesitate because processes are undefined, approvals unclear, and institutional supports limited. Our findings point to the importance of early and sustained encouragement, clear messaging that non-traditional theses are accepted, and opportunities to build communities of practice. The library has a key role: connecting students with institutional resources, collaborating with subject librarians to surface examples and engage supervisors, and ensuring repository infrastructure can preserve and share diverse formats. Supporting these needs not only enables innovative scholarship but also broadens what counts as research.

Track: Flash

Keywords: alternative theses, non-traditional theses, library support, preservation, faculty and student perspectives

AI and Copyright, How it Affects an ETD. Kim Fleshman (*Bowling Green State University Graduate College*).

Abstract. The increasing use of artificial intelligence (AI) in academic research and writing presents new challenges for institutions overseeing graduate education. This flash talk examines the implications of AI-generated content in theses and dissertations, focusing on copyright eligibility, ethical use, and institutional responsibility. Current U.S. Copyright Office guidelines affirm that works containing AI-generated material may qualify for copyright protection if they include sufficient human authorship. Faculty and policy makers must ensure that institutional policies clearly define acceptable AI use, emphasizing that AI should support—not replace—critical thinking, original research, and scholarly expression. The responsibility for verifying the integrity of academic submissions lies with both the student and the institution, requiring proactive oversight and clear guidance. By promoting ethical AI integration and reinforcing the priority of human creativity, institutions can uphold academic standards while embracing technological innovation.

Track: Flash

Keywords: AI, Theses, Dissertations, Copyright

Level Up! Grant writing as academic professionalization. Kristin Terrill (*Iowa State University*) and Ruth Lu (*Ohio University*).

Abstract. Grant writing offers a powerful way for academic professionals to access budget resources for innovative projects as well as to enhance their qualifications. In this flash talk, the speakers will go over where to find grant opportunities, how to select opportunities based on eligibility and competitiveness, and how to propose and manage a grant-funded project.

Track: Flash

Keywords: grant writing, professional development, alt-ac

Iowa State's Open Educational Resources for Graduate Students. Kristin Terrill (*Iowa State University*).

Abstract. Open educational resources (OERs) offer educators and professionals a robust and sustainable way to share knowledge with colleagues and stakeholders. In this flash talk, the speaker will briefly introduce several OERs produced at Iowa State University: the e-books *Preparing to Publish*, *Oral Communication for Nonnative Speakers of English*, and *A Guide to Writing the Statement of Purpose for Graduate School Applications*.

Track: Flash

Keywords: open educational resources, graduate education, Iowa State University, oral communication, statement of purpose, research writing

Electronic Theses and Dissertations (ETDs): A Potential Path to Authorship Falsification. Larry Tague (*University of Tennessee Health Science Center*) and Shirley Hancock (*University of Tennessee Health Science Center*).

Abstract. A clear location in ETDs is needed for students to showcase multi-authored published, submitted, or prepared articles that do not prompt questions about single authorship of the ETD. To preserve the student's unitary authorship, our UTHSC ETD policy reserves body chapters for the author's distinct voice, where articles are summarized as chapter content. With the right permissions, full articles are included in appendices, ensuring both compliance and transparency for multi-authored works. This policy benefits both the student and their research faculty committee. Students are not required to adhere to formatting standards for auxiliary information in appendices. Chapter summaries are typically three to four pages in length, with links to appendix items such as tables or figures as needed. Student-faculty research committees can now focus on only the students' voice in ETD body chapters. For published articles, external peer review and acceptance will eliminate detailed reading by the student's ETD advisory committee. A digital survey instrument will be designed to evaluate student and faculty acceptance of this policy.

Track: Flash

Keywords: ETD structural policy, Student time savings, Faculty time savings, Impact on formatting needs, Protecting the author's document voice, Helping to eliminate questions of authorship

VisualMind AI: Revolutionizing ETDs Research Through AI-Powered Knowledge Visualization. Manmeet Kaur (Uttarakhand Sanskrit University, Haridwar).

Abstract. The exponential growth of scholarly information necessitates advanced tools for efficient knowledge management and comprehension. VisualMind AI, an innovative application that combines AI-driven mind mapping with a conversational chatbot, emerges as a transformative solution for interacting with complex academic content. This article examines the potential of VisualMind within the academic research ecosystem, with a specific focus on its application for Electronic Theses and Dissertations (ETDs). We evaluate its core functionalities—including automated summarization, interactive knowledge mapping, and video content processing—in terms of their usability, benefits, and current limitations. The discussion positions VisualMind as a critical tool for students, researchers, and librarians, enhancing literature review processes, thematic analysis, and the overall accessibility of ETD repositories. By situating VisualMind within the broader landscape of ETD management, the study underscores how AI-enabled visualization can improve research workflows, scholarly communication, and long-term digital preservation.

Track: Flash

Keywords: VisualMind AI, Artificial Intelligence, Mind Mapping, Chatbot

Exploring automation of content detection in PDF dissertations. Rachel Woodbrook (University of Michigan), Aurelia Hudak (University of Michigan) and Peter Cerda (University of Michigan).

Abstract. The University of Michigan Library stewards scanned and digital PhD items in its institutional repository, Deep Blue Documents, and receives multiple global requests each week for access to dissertations that are restricted to campus (the default for items which have not been identified as in the public domain, or for which there is no author permission to open access).

Copyright requirements in the U.S. have changed over time; for items published before 1978, one factor is whether there is a statement of copyright in the item itself. We wanted to explore whether it would be possible to scale detection of copyright statements for about 13,000 PDFs.

In summer 2025, a student assistant created a partially-automated workflow using PyTesseract to batch process PDFs, assess (and generate) OCR, and search for copyright statements. While this project is still ongoing, our current assessment of the accuracy of her script's results is over 99%.?

Track: Flash

Keywords: Optical Character Recognition (OCR), PyTesseract, Automating workflows

AI-Driven Research Transformation in Bangladesh: A Study on the Integration of Machine Learning and Data Analytics in Scientific Discoveries. Dr. Md. Zillur Rahman (*Librarian, Ahsanullah University of Science and Technology*). Moderator: John Hagen. Breakout Room.

Abstract. Declaration : AI has been used to develop this paper

Introduction/Background

Artificial Intelligence (AI) has emerged as one of the most transformative technologies of the 21st century, with its potential to reshape industries, businesses, and research methodologies across the globe. In Bangladesh, AI is still in its nascent stages, yet its impact on research is beginning to take root, especially in areas such as healthcare, agriculture, and environmental studies. AI, particularly Machine Learning (ML) and Data Analytics, offers new possibilities for scientific discovery by enabling the processing of large datasets, identifying patterns, and making predictions that were previously unfeasible using traditional methods (Hosseini & Kiani, 2021).

Bangladesh, as a developing nation, faces unique challenges in its research endeavors, including limited funding, outdated methodologies, and a lack of infrastructure. However, the integration of AI into research processes offers the potential to overcome these obstacles by providing tools to enhance data processing, optimize research methodologies, and accelerate discovery. This study aims to assess the transformative impact of AI-driven research in Bangladesh, with a focus on how ML and data analytics can enhance scientific research outcomes.

Keywords: Research Transformation, Machine Learning, Data Analytics, Scientific Discoveries, Bangladesh

Methodology

This study adopts a mixed-methods approach, combining both qualitative and quantitative research techniques. Data were collected through three primary channels: surveys, case studies, and semi-structured interviews with academic researchers, research institutions, and AI professionals in Bangladesh. The survey instrument was designed to gather information on the extent of AI adoption in various research fields, as well as the challenges faced by researchers when integrating AI technologies. In addition, case studies of AI-based projects in Bangladesh were analyzed to identify specific examples of AI's impact on scientific research, particularly in agriculture and healthcare. Interviews were conducted with key stakeholders, including government bodies, universities, and private sector entities, to assess the current state of AI infrastructure and expertise in the country.

Furthermore, data analytics techniques were employed to analyze survey responses and interview transcripts, providing insights into the patterns and trends in AI adoption. Descriptive and inferential statistics were used to evaluate the impact of AI technologies on research productivity, while qualitative analysis was utilized to assess the perceptions and attitudes of stakeholders towards AI-driven research.

Results

The findings of this study indicate that AI and machine learning are gradually becoming integral to research in Bangladesh, with a noticeable increase in their adoption over the past five years. Key sectors where AI is being employed include agriculture, healthcare, and environmental management. In agriculture, AI-driven systems are helping researchers analyze crop patterns and predict yields, which is vital for improving food security in a country highly dependent on agriculture (Rahman & Sarker, 2022). In healthcare, AI algorithms are being used for early disease detection, medical imaging analysis, and patient data management, which has improved both diagnosis and treatment efficacy.

Despite these promising applications, the study also revealed significant challenges. A lack of AI expertise, limited access to advanced computational resources, and inadequate data infrastructure remain barriers to the full adoption of AI in research. Many researchers expressed concerns over the high costs associated with AI

tools and the difficulty of acquiring quality datasets. Additionally, the absence of comprehensive AI-related education and training programs in many institutions poses a challenge to cultivating a skilled workforce capable of leveraging AI technologies effectively.

The results further suggest that while AI is being used in specific research contexts, its potential remains underutilized due to institutional and infrastructural limitations. Moreover, there is a lack of coordinated efforts between the government, academia, and industry to fully harness the power of AI in research.

Conclusion

AI and machine learning present a significant opportunity for research transformation in Bangladesh. The integration of these technologies into research processes has the potential to significantly accelerate scientific discoveries, particularly in fields such as agriculture, healthcare, and environmental science. However, the full realization of AI's benefits in Bangladesh is contingent upon overcoming several barriers, including the need for improved infrastructure, greater access to computational resources, and a stronger focus on AI education and training. The government and private sectors must collaborate to invest in AI research infrastructure, capacity building, and policy development to create an ecosystem conducive to AI-driven innovation.

As Bangladesh continues to invest in AI technologies, there is great potential for the country to become a regional leader in AI-driven research. By addressing existing challenges and promoting collaboration between academia, industry, and government, Bangladesh can leverage AI to drive impactful research that addresses its most pressing socio-economic issues.

Track: Full Paper

Keywords: research transformation, machine learning, data analytics, scientific discoveries, Bangladesh

7:40 - 8:30 PM

National ETD Repositories in G20 Countries in Relation to NDLTD's Global ETD Metadata Repository.

Sukanta Kumar Patra (Vidyasagar College for Women). Moderator: Ana Pavani. Main Room.

Abstract. Introduction:

In the contemporary global knowledge ecosystem, electronic theses and dissertations (ETDs) serve as key resources in advancing scholarly research and socio-economic development. The G20 nations, comprising 19 individual countries and the European Union, collectively represent 85% of the global GDP and play a crucial role in shaping international research systems. At the 2023 G20 Summit, the theme "One Earth, One Family, One Future" aligns with the United Nations 2030 Agenda for Sustainable Development Goals (SDGs), emphasizing the importance of open access to research data. The Networked Digital Library of Theses and Dissertations Despite these promising applications, the study also revealed significant challenges. A lack of AI expertise, limited access to advanced computational resources, and inadequate data infrastructure remain barriers to the NDLTD) provides a global search portal, enabling the discovery of ETDs from various member countries.

Objective of Study:

This study aims to explore the integration of G20 countries within the NDLTD's Global ETD Metadata Repository. Specifically, it seeks to:

- Identify the connection between global ETDs and G20 member countries.
- Analyze the role and significance of ETDs in the global research context.
- Compare ETD initiatives by G20 countries with respect to NDLTD's repository.

Literature Review:

Several studies have contributed to the understanding of ETDs and their global impact. Fox (2006) emphasized the open-access movement of ETDs, highlighting the 5S framework (Society, Scenario, Spaces, Structures, Stream) for digital library development. Jewell (2006) explored the University of Waterloo's E-Theses project, illustrating collaboration with NDLTD. Krishnamurthy & Kemparaja (2011) examined Indian universities' metadata practices, while Gupta (2014) analyzed ETD policies in India, especially regarding submission guidelines and government initiatives.

Methodology:

The study employs a webometric methodology, analyzing quantitative data from ETD repositories across the G20 countries that participate in NDLTD's global open-access movement. The study excludes countries that lack national ETD repositories or are not part of the NDLTD initiative.

Analysis and Findings:

Out of the 19 G20 countries and the European Union, 13 countries actively contribute to NDLTD's Global ETD Repository. These countries include Australia, Brazil, Canada, China, France, Germany, India, Italy, Japan, South Africa, Turkey, United Kingdom, and the United States. Data reveals significant variation in the number of ETDs uploaded by these countries, with the United States leading with 1.5 million doctoral dissertations, followed by Brazil (625,289), the United Kingdom (600,000), and India (483,399). Notably, some G20 countries like Argentina, Indonesia, Mexico, Russia, Saudi Arabia, South Korea, and Turkey do not participate in the global open-access ETD movement.

Discussion

The data shows that G20 countries contribute a substantial portion of the metadata to NDLTD's Global ETD repository, with their contributions comprising 89% of the total. The study identifies the importance of improving metadata harvesting systems and ensuring comprehensive inclusion of all research products, including MPhil theses, in national repositories.

Conclusion

Reflecting the G20 Summit's theme of "One Earth, One Family, One Future," the study concludes that G20 countries play a pioneering role in promoting sustainable development through global research access. Their substantial contributions to NDLTD highlight the vital role of open-access ETD repositories in supporting global academic collaboration. Recommendations include encouraging all universities to mandate ETD submissions, improving metadata standards, and fostering international collaboration through workshops and conferences.

Track: Individual

Keywords: ETD metadata, NDLTD, FAIR, G20 countries, SDG

Sharing Collaborative Approaches and Community Insights on ETD Management in Canada. Julia Gilmore, Scholars Portal. Moderator: John Hagen. Breakout room.

Abstract. Scholaris is a new national shared repository service that supports open discovery, management, sharing and preservation of Canadian scholarship. Scholaris is built on DSpace software, with parallel instances hosted and managed by Scholars Portal (University of Toronto Libraries). Technical and community infrastructure are foundational pillars in the development of Scholaris. In addition to the technical aspects of the service, developing community infrastructure is a key component of building a forward-thinking service that serves the needs of the Canadian repository community and provides opportunities for greater alignment with international initiatives and best practices. To support this vision, the Canadian Association of Research Libraries

(CARL) established three Network of Expert Groups to provide guidance on key areas of repository management.

The [Scholaris Electronic Theses and Dissertations Expert Group \(S-ETEG\)](#) provides guidance, recommendations, and advice for migrating and managing ETDs within the Scholaris infrastructure. This presentation will provide an introduction to the S-ETEG and highlight the impressive work of the group over the past year, including recommendations to promote alignment and consistent practices across repositories, and distributing a needs assessment survey to understand current perspectives, approaches, and functional requirements for managing ETDs. While the group's outputs are attuned to the Scholaris context and designed to support subscribing institutions, the guidance and insights shared by the group have broader relevance which we hope will prove useful to the wider repository community.

Track: Individual

Keywords: expert group, harvesting, workflows, community collaboration, survey findings, Canada, DSpace.

8:30 - 9:00 PM

Closing Session - ETD Leadership Awards Ceremony & Future Directions.

John Hagen, USETDA and Ed Fox, NDLTD. Moderator: Ramesh C Gaur.



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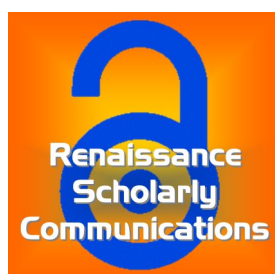


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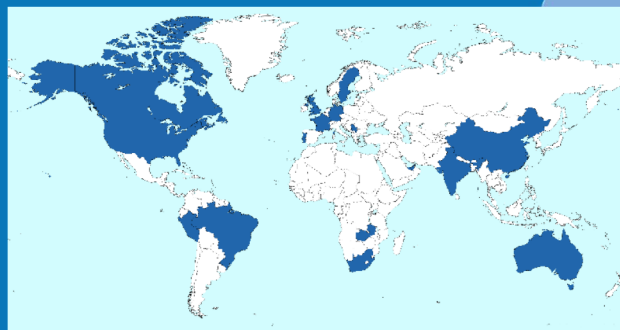
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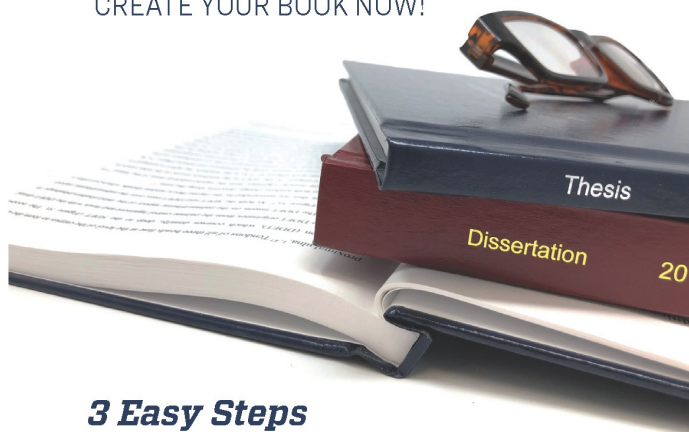


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ETD 2025 SYMPOSIUM
SEPTEMBER 25-26, 2025



Bid to Host USETDA 2026

The USETDA is now accepting bids to host the USETDA 2026 Conference. Please submit your proposal by January 1, 2026. To contact the USETDA Board, send an email to info@usetda.org. For more information, visit <https://www.usetda.org/usetda-conferences/usetda-conference-bid-process/>.

The following information should be included in your institution's bid:

- Hosting organization / institution(s)
- Rationale for hosting the conference
- Planned dates – please include proposed conference dates and explain your choice, including flexibility of proposed dates
- Venue – city, information on conference facilities (e.g., number and size of conference rooms, and availability of Internet access in conference rooms)
- Conference organization:
 - Level of logistical and financial support from host institution
 - Detailed information on conference support personnel
 - Distribution of responsibility for conference organization
 - Capacity to host hybrid and/or virtual conferencing via Zoom, etc.
- Travel/transportation considerations
- Accommodations (type, cost, applicable city and state taxes, and access to conference venue)
- Proposed special activities
- Tourist information
- Restaurants

The USETDA board will work closely with host institution(s) to plan and execute all aspects of the conference.

Keep in touch!



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