

Mat Kelly

Drexel University
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RESEARCH INTERESTS

- Digital Preservation, Personal Web Archiving, Information Retrieval, Metadata, Semantics, Persistent Identifiers, Distributed Systems, Information Visualization.

Education

- 2012–2019 Doctor of Philosophy (PhD) in Computer Science
Old Dominion University, Norfolk, VA.
Dissertation: Aggregating Private and Public Web Archives Using the Mementity Framework
- 2010–2012 Master of Science (MS) in Computer Science
Old Dominion University, Norfolk, VA.
Thesis: An Extensible Framework for Creating Personal Archives of Web Resources Requiring Authentication
- 2001–2006 Bachelor of Science (BS) in Computer Science
University of Florida, Gainesville, FL.

Professional Experience

- 2019–present DREXEL UNIVERSITY, COLLEGE OF COMPUTING & INFORMATICS
Assistant Professor, Department of Information Science, Tenure-Track
Philadelphia, PA.
- 2015 OLD DOMINION UNIVERSITY
Instructor, CS418 - Web Programming
Norfolk, VA.
- 2011–2019 OLD DOMINION UNIVERSITY, COLLEGE OF SCIENCES
Graduate Research Assistant, Department of Computer Science
Norfolk, VA.
- 2011–2019 NASA LANGLEY RESEARCH CENTER VIA SCIENCE SYSTEMS AND APPLICATIONS (SSAI), INC.
Mobile Applications Developer
Hampton, VA.
- 2009 BMW GROUP INFORMATION TECHNOLOGY RESEARCH CENTER (ITRC)
Research Intern
Greenville, SC.
- 2006–2019 BLADE SOFTWARE / BLADE AGENCY
Web Programmer
Gainesville, FL.
- 2006–2007 SUMTOTAL SYSTEMS, INC. / MINDSOLVE TECHNOLOGIES, INC.
Web Programmer
Gainesville, FL.

2005–2006	CENTER FOR INSTRUCTIONAL TECHNOLOGY AND TRAINING (CITT) AT UNIVERSITY OF FLORIDA Web Designer Gainesville, FL.
2003–2006	THE INDEPENDENT FLORIDA ALLIGATOR Managing Editor, New Media Gainesville, FL.
2004–2005	OFFICE OF STUDENT ACTIVITIES (OSA) AT UNIVERSITY OF FLORIDA Web/Graphics Designer Gainesville, FL.

Publications

JOURNAL PUBLICATIONS

- [J9] Erjia Yan, Robert T. Palmer, Jiangen He, Chaoqun Ni, and Mat Kelly, “Diversity of HBCUs’ Institutional Human Capital: A Cross-Discipline, Longitudinal Analysis of Faculty Hiring and Placement at HBCUs,” *Innovative Higher Education*, 2024.
- [J8] Deanna Zarrillo, Mat Kelly, Erjia Yan, Chaoqun Ni, “Web Archives for Data Collection: An Ethics Case Study,” *Accountability in Research: Ethics, Integrity and Policy*, pp. 1-18, 2024.
- [J7] Mat Kelly, “Exploiting the Untapped Functional Potential of Memento Aggregators Beyond Aggregation,” *International Journal on Digital Libraries (IJDL)*, 25(1), pp. 93–104, 2024.
- [J6] John Berlin, Mat Kelly, Michael L. Nelson, and Michele C. Weigle, “To Re-experience the Web: A Framework for the Transformation and Replay of Archived Web Pages,” *ACM Transactions on the Web (TWEB)*, 17(4), pp. 1–49, 2023.
- [J5] Jane Greenberg, Scott McClellan, Christopher Rauch, Xintong Zhao, Mat Kelly, Yuan An, John Kunze, Rachel Orenstein, Claire Porter, Vanessa Meschke, and Eric Toberer, “Building Community Consensus for Scientific Metadata with YAMZ,” *Data Intelligence*, 5(1), pp. 242-260, 2023.
- [J4] Mat Kelly, Christopher B. Rauch, Jane Greenberg, Sam Grabus, Joan Boone, John Kunze, and Peter M. Logan, “Advancing ARKs in the Historical Ontology Space,” *Code4Lib Journal*, Issue 50, 2021.
- [J3] Michal Monselise, Jane Greenberg, Ou Stella Liang, Sonia Pascua, Heejun Kim, Mat Kelly, Joan P. Boone, and Christopher C. Yang, “Toward Best Practice for Extending the Consumer Health Vocabulary,” *Journal of Data and Information Science (JDIS)*, 6(1), 2021.
- [J2] Justin F. Brunelle, Mat Kelly, Michele C. Weigle, and Michael L. Nelson, “The Impact of JavaScript on Archivability,” *International Journal on Digital Libraries (IJDL)*, 17(2), pp. 95–117, 2015.
- [J1] Justin F. Brunelle, Mat Kelly, Hany SalahEldeen, Michele C. Weigle, and Michael L. Nelson, “Not All Mementos Are Created Equal: Measuring the Impact of Missing Resources,” *International Journal on Digital Libraries (IJDL)*, 16(3), pp. 283–301, 2015.

CONFERENCE PUBLICATIONS (PEER-REVIEWED)

- [C28] Christopher B. Rauch, Hyung Wook Choi, and Mat Kelly, “Beyond the ‘Idols of the Marketplace’: Managing Semantic Change in Research,” In *Proceedings from the 2024 Annual Meeting of the Document Academy*, Vol. 11, Issue 2, Article 3, 2024.
- [C27] Christopher Rauch, Alex H. Poole, Travis Reid, Michele C. Weigle, Michael L. Nelson, Faryaneh Poursardar, and Mat Kelly, “Archiving Digital Marketing: Examining Preservation of Dynamic Content on the Web Through the Lens of Online Advertisements,” Accepted to be In *Proceedings of the 20th International Conference on Digital Preservation (iPRES)*, 2024.
- [C26] Erjia Yan, Mat Kelly, Deanna Zarrillo, Jiangen He, Chaoqun Ni, and Robert Palmer, “Examining the academic mobility at Historically Black Colleges and Universities in the U.S.,” In *Proceedings of the 19th International Conference of the International Society for Scientometrics and Informetrics (ISSI)*, pp. 507–513, 2023.

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PRE-DREXEL ↓

- [C25] Mat Kelly, Brenda Reyes Ayala, Zhiwu Xie, and Edward A. Fox, “Web Archiving and Digital Libraries (WADL) 2023,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 314–315, 2023.
- [C24] Mat Kelly, “Aggregator Reuse and Extension for Richer Web Archive Interaction,” In Proceedings of the 24th International Conference on Asia-Pacific Digital Libraries (ICADL), pp. 313–328, 2022.
- [C23] Deanna Zarrillo, Mat Kelly, Christopher Jackson, and Erjia Yan, “Collecting Diachronic Affiliation Data for Faculty at HBCUs Using Memento,” In Proceedings of the Association for Information Science and Technology (ASIS&T) Annual Meeting, pp. 528–532, 2022. Short Paper.
- [C22] Hyung Wook Choi and Mat Kelly, “Examining Existing Approaches Toward Semantic Disambiguation,” In Proceedings of the Seventeenth International Society for Knowledge Organization (ISKO) Conference 2022, pp. 349–352, 2022.
- [C21] Martin Klein, Mat Kelly, Zhiwu Xie, and Edward A. Fox, “Web Archiving and Digital Libraries (WADL) 2022,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 1–2, 2022.
- [C20] Christopher B. Rauch, Mat Kelly, John Kunze, and Jane Greenberg, “FAIR Metadata A Community-driven Vocabulary Application,” In Proceedings of the 15th International Conference on Metadata and Semantic Research (MTSR), 2021.
- [C19] Jane Greenberg, Christopher B. Rauch, and Mat Kelly, “Project Pipeline: Preservation, Persistence, and Performance,” In Proceedings of the International Conference on Digital Preservation (iPRES), 2021.
- [C18] Mat Kelly, Jane Greenberg, Christopher B. Rauch, Sam Grabus, Joan P. Boone, John A. Kunze, and Peter Melville Logan, “A Computational Approach to Historical Ontologies,” In Proceedings of the 2020 IEEE International Conference on Big Data (Big Data), pp. 1878–1883, 2020.
- [C17] Mat Kelly, Michael L. Nelson, and Michele C. Weigle, “A Framework for Aggregating Private and Public Web Archives,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 273–282, 2018.
- [C16] Mohamed Aturban, Mat Kelly, Sawood Alam, John A. Berlin, Michael L. Nelson, and Michele C. Weigle, “ArchiveNow: Simplified, Extensible, Multi-Archive Preservation,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 321–322, 2018.
- [C15] Sawood Alam, Mat Kelly, Michele C. Weigle, and Michael L. Nelson, “Unobtrusive and Extensible Archival Replay Banners Using Custom Elements,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 319–320, 2018.
- [C14] Mat Kelly, Lulwah M. Alkawai, Sawood Alam, Michael L. Nelson, Michele C. Weigle, and Herbert Van de Sompel, “Impact of URI Canonicalization on Memento Count,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 303–304, 2017.
- [C13] Sawood Alam, Mat Kelly, Michele C. Weigle, and Michael L. Nelson, “Client-side Reconstruction of Composite Mementos Using ServiceWorker,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 237–240, 2017.
- [C12] John A. Berlin, Mat Kelly, Michele C. Weigle, and Michael L. Nelson, “WAIL: Collection-Based Personal Web Archiving,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 340–341, 2017.
- [C11] Mat Kelly, Sawood Alam, Michael L. Nelson, and Michele C. Weigle, “InterPlanetary Wayback: Peer-To-Peer Permanence of Web Archives,” In Proceedings of the International Conference on Theory and Practice of Digital Libraries (TPDL), pp. 411–416, 2016. Short Paper. Acceptance Rate: 37% (35/93)
- [C10] Sawood Alam, Mat Kelly, and Michael L. Nelson, “InterPlanetary Wayback: The Permanent Web Archive,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 273–274, 2016.

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- [C9] Wesley Jordan, Mat Kelly, Justin F. Brunelle, Laura Vobrak, Michele C. Weigle, and Michael L. Nelson, “Mobile Mink: Merging Mobile and Desktop Archived Webs,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 243–244, 2015.
- [C8] Michael Ruffing, Yangyang He, Mat Kelly, Jason O. Hallstrom, Stephan Olariu, and Michele C. Weigle. “A Retasking Framework For Wireless Sensor Networks,” In Proceedings of the IEEE Military Communications Conference (MILCOM), pp. 1066–1071, 2014.
- [C7] Justin F. Brunelle, Mat Kelly, Hany SalahEldeen, Michele C. Weigle, and Michael L. Nelson, “Not All Mementos Are Created Equal: Measuring The Impact Of Missing Resources,” In Proceedings of the IEEE/ACM Joint Conference on Digital Libraries (JCDL), pp. 321–330, 2014. Acceptance Rate: 28% (30/107)
- [C6] Mat Kelly, Michael L. Nelson, and Michele C. Weigle, “The Archival Acid Test: Evaluating Archive Performance on Advanced HTML and JavaScript,” In Proceedings of the IEEE/ACM Joint Conference on Digital Libraries (JCDL), pp. 25–28, 2014. Short Paper. Acceptance Rate: 32% (24/75)
- [C5] Mat Kelly, Michael L. Nelson, and Michele C. Weigle, “Mink: Integrating the Live and Archived Web Viewing Experience Using Web Browsers and Memento,” In Proceedings of the IEEE/ACM Joint Conference on Digital Libraries (JCDL), pp. 469–470, 2014.
- [C4] Mat Kelly, Michael L. Nelson, and Michele C. Weigle. “Graph-Based Navigation of a Box Office Prediction System,” In Proceedings of the IEEE VIS 2013, 2013.
- [C3] Mat Kelly, Justin F. Brunelle, Michele C. Weigle, and Michael L. Nelson. “On the Change in Archivability of Websites Over Time,” In Proceedings of the International Conference on Theory and Practice of Digital Libraries (TPDL), pp. 35–47, 2013. Acceptance Rate: 24% (24/100)
- [C2] Mat Kelly and Michele C. Weigle, “WARCreate - Create Wayback-Consumable WARC Files from Any Webpage,” In Proceedings of the ACM/IEEE Joint Conference on Digital Libraries (JCDL), pp. 437–438, 2012.
- [C1] Thad Chee, Matthew Kelly, Louis Nguyen, Patrick Minnis, Rabindra Palikonda, Douglas A. Spangenberg, J. Kirk Ayers. Access to Real-time and Historic Satellite Products from a Mobile Application. Poster Presented at: American Geophysical Union Fall Meeting, 2011.

CONFERENCE PRESENTATIONS

- [P35] John Berlin, Mat Kelly, Michael L. Nelson, and Michele C. Weigle, “To Re-experience the Web: A Framework for the Transformation and Replay of Archived Web Pages,” Presented at the ACM International Conference on Information and Knowledge Management (CIKM), 2024.
- [P34] Hyung Wook Choi and Mat Kelly, “Documenting Semantic Shifts Across Domains with Version Control,” Presented at the Annual Meeting of the Document Academy (DOCAM), 2024.
- [P33] Christopher Rauch, Mat Kelly, Alex H. Poole, Travis Reid, Faryaneh Poursardar, Michael L. Nelson, and Michele C. Weigle, “Contextual Archiving of Web Page Advertisements Using Persona-Based Tools,” Presented at the Society of American Archivists (SAA) Research Forum, 2024.
- [P32] Christopher Rauch, Mat Kelly, Alexander H. Poole, Travis Reid, Michele C. Weigle, and Michael L. Nelson, “Saving Ads: Assessing and Improving Web Archives’ Holdings of Online Advertisements,” Presented at the International Internet Preservation Consortium (IIPC) Web Archiving Conference (WAC) 2024, 2024.
- [P31] Hyung Wook Choi and Mat Kelly, “On Identifying Points of Semantic Shift Across Domains,” Presented at the 17th International Conference on Metadata and Semantic Research (MTSR 2023), Poster Session, 2023.
- [P30] Mat Kelly, Deanna Zarrillo, and Erjia Yan, “Using Web Archives to Model Academic Migration and Identify Brain Drain,” Presented at the International Internet Preservation Consortium (IIPC) Web Archiving Conference (WAC) 2023, Online, 2023.

- [P29] Mat Kelly, Deanna Zarrillo, Christopher Jackson, and Erjia Yan, “First steps in Identifying Academic Migration using Memento and Quasi-Canonicalization,” Presented at the Web Archiving and Digital Libraries Workshop (WADL), 2022.
- [P28] Scott McClellan, Mat Kelly, and Jane Greenberg, “Modeling Ephraim Chambers’ Knowledge Structure From a Naïve Standpoint,” Presented at The 8th North American Symposium on Knowledge Organization (NASKO) 2021, Online, 2021.
- [P27] Mat Kelly, Christopher B. Rauch, John Kunze, Sam Grabus, Joan Boone, Peter M. Logan, and Jane Greenberg, “Archival Resource Keys for Collaborative Historical Ontology Publication,” In Proceedings of the International Conference on ICT enhanced Social Sciences and Humanities (ICTeSSH) 2021, Online, 2021.
- [P26] Mat Kelly, “WASAPIfying Private Web Archiving Tools for Persistence and Collaboration,” International Internet Preservation Consortium (IIPC) Web Archiving Conference (WAC) 2021, 2021.
- [P25] Mat Kelly, Jane Greenberg, Christopher B. Rauch, Joan P. Boone, John Kunze, and Peter Logan, “Of ARKs and Ontologies,” Presented at PIDapalooza 2021, Online, 2021.
- [P24] Hyung Wook Choi, Rose Ann DiMaria-Ghalili, Mat Kelly, Alexander Poole, Erjia Yan, and Jina Huh-Yoo, “Older Adults and Technology Use: A Systematic Literature Review,” Symposium presentation at the Gerontological Society of America 2020 Annual Scientific Meeting, Online Meeting, 2020.
- [P23] Abigail Mabe, Dhruv Patel, Maheedhar Gunnam, Surbhi Shankar, Mat Kelly, Sawood Alam, Michael L. Nelson, and Michele C. Weigle, “TMVis: Visualizing Webpage Changes Over Time,” Presented at the Web Archiving and Digital Libraries Workshop (WADL), 2020.
- [P22] Mat Kelly, “Weaving in the Loose Ends of Novel Web Archiving Approaches,” Presented at Save All the Internet: Web Archiving Tools and Tips, 2020.
- [P21] Sawood Alam, Mat Kelly, Michele C. Weigle, and Michael L. Nelson, “InterPlanetary Wayback: The Next Step Towards Decentralized Web Archiving,” Presented at the Decentralized Web Summit, 2018.
- [P20] Mat Kelly, Sawood Alam, Michael L. Nelson, and Michele C. Weigle, “Client-Assisted Memento Aggregation Using the Prefer Header,” Presented at the Web Archiving and Digital Libraries Workshop (WADL), 2018.
- [P19] Sawood Alam, Mat Kelly, Michele C. Weigle, and Michael L. Nelson, “A Survey of Archival Replay Banners,” Presented at the Web Archiving and Digital Libraries Workshop (WADL), 2018.
- [P18] Mat Kelly, Lulwah M. Alkwai, Sawood Alam, Michael L. Nelson, Michele C. Weigle, and Herbert Van de Sompel, “Impact of URI Canonicalization on Memento Count,” Presented at the Web Archiving and Digital Libraries Workshop (WADL), 2017.
- [P17] Sawood Alam, Mat Kelly, Michele C. Weigle, and Michael L. Nelson, “Avoiding Zombies in Archival Replay Using ServiceWorker,” Presented at the Web Archiving and Digital Libraries Workshop (WADL), 2017.
- [P16] Michele C. Weigle, Michael L. Nelson, Mat Kelly, and John Berlin, “Archive What I See Now - Personal Web Archiving with WARCS,” Presented at the International Internet Preservation Consortium (IIPC) Web Archiving Conference (WAC), 2017.
- [P15] Mat Kelly and David Dias, “A Collaborative, Secure, and Private InterPlanetary Wayback Web Archiving System using IPFS,” Presented at the International Internet Preservation Consortium (IIPC) Web Archiving Conference (WAC), 2017.
- [P14] Mat Kelly, “Tools for the Personal Web Archivist: WARCreate, WAIL, Mink, InterPlanetary Waybacks,” Presented at Archives Unleashed 4.0: Web Archive Datathon, 2017.
- [P13] Mat Kelly, “Exploring Aggregation of Personal, Private, and Institutional Web Archives,” Presented at Archives Unleashed 2.0: Web Archive Datathon, 2016.
- [P12] Mat Kelly, “InterPlanetary Wayback: The Permanent Web Archive,” Presented at the Web Archiving and Digital Libraries Workshop (WADL), 2016.

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- [P11] Mat Kelly, “A Framework for Aggregating Private and Public Web Archives,” at the ACM/IEEE Joint Conference on Digital Libraries (JCDL), Doctoral Consortium, 2015.
- [P10] Mat Kelly, Michael L. Nelson, and Michele C. Weigle, “Visualizing Digital Collections of Web Archives,” Web Archiving Collaboration: New Tools and Models Workshop, 2015.
- [P9] Mat Kelly, “Facilitation of the A Posteriori Replication of Web Published Satellite Imagery”, Virginia Space Grant Consortium 2015 Student Research Conference, 2015.
- [P8] Mat Kelly, Michael L. Nelson, and Michele C. Weigle. “Efficient Thumbnail Summarization for Web Archives,” Digital Preservation 2014, 2014.
- [P7] Mat Kelly. “Archive What I See Now,” Archive-It Partner Meeting, 2013.
- [P6] Michael L. Nelson, Scott G. Ainsworth, Justin F. Brunelle, Mat Kelly, Hany SalahEldeen, and Michele C. Weigle. “Who Will Archive the Archives? Thoughts About the Future of Web Archiving,” Wolfram Data Summit 2013, 2013.
- [P5] Mat Kelly, Michael L. Nelson, and Michele C. Weigle. “WARCreate and WAIL: WARC, Wayback and Heritrix Made Easy,” Digital Preservation 2013, Workshops and Sessions: Web Archiving, 2013.
- [P4] Mat Kelly, Michele C. Weigle, and Michael L. Nelson. “Making Enterprise-Level Archive Tools Accessible for Personal Web Archiving,” Personal Digital Archiving 2013, Poster Session, 2013.
- [P3] Mat Kelly, Michele C. Weigle, and Michael L. Nelson. “WARCreate - Create Wayback-Consumable WARC Files from Any Webpage,” Digital Preservation 2012, Tools Demo Session: Web Archiving, 2012.
- [P2] Mat Kelly, Syed R. Rizvi, Liang Chen, Chinmay Lokesh, Stephan Olariu, and Michele C. Weigle. ALERT: A Next-generation Emergency Response System for First Responders using Retasking of Wireless Sensor Networks, 13th Annual Tidewater Student Research Poster Session, 2011.
- [P1] Mat Kelly, Michele C. Weigle, and Michael L. Nelson. Archiving Your Facebook Pages Using Archive Facebook. NDIIPP/NDSA Partners Meeting Special Interest Session: Web Archiving, 2011.

ARTICLES

- [A5] Sawood Alam, Mat Kelly, Michele C. Weigle, and Michael L. Nelson, “InterPlanetary Wayback: The Permanent Web Archive,” Bulletin of the IEEE Technical Committee on Digital Libraries (TCDL), 13(1), 2017.
- [A4] Mat Kelly, Lulwah M. Alkwai, Michael L. Nelson, Michele C. Weigle, and Herbert Van de Sompel, “Impact of URI Canonicalization on Memento Count,” Technical Report arXiv:1703.03302, 2017.
- [A3] Mat Kelly, “A Framework for Aggregating Private and Public Web Archives,” Bulletin of the IEEE Technical Committee on Digital Libraries (TCDL), 11(3), 2015.
- [A2] Mat Kelly, Justin F. Brunelle, Michele C. Weigle, and Michael L. Nelson. “A Method for Identifying Personalized Representations in the Archives,” D-Lib Magazine, 19(11/12), 2013.
- [A1] David Helman, Matthew Kelly, Martin Guttmann, Bill Carter, Enrique Castro-Leon, Thomas Kellerer, Dror Shenkar. “Preserving Performance While Saving Power Using Intel Intelligent Power Node Manager and Intel Data Center Manger”, 2009.

Teaching

For Drexel University unless noted otherwise.

- [16] INFO655 - Intro to Web Programming, Winter 2025
- [15] INFO101 - Introduction to Computing and Security Technology, Fall 2024
- [14] INFO202 - Data Curation, Spring 2024

- [13] INFO655 - Intro to Web Programming, Winter 2024
- [12] INFO624 - Information Retrieval Systems, Fall 2023
- [11] INFO202 - Data Curation, Spring 2023
- [10] INFO102 - Introduction to Information Systems, Winter 2023
- [9] INFO600 - Web Systems and Architecture, Fall 2022
- [8] INFO624 - Information Retrieval Systems, Winter 2022
- [7] INFO202 - Data Curation, Spring 2021
- [6] INFO624 - Information Retrieval Systems, Winter 2021
- [5] INFO600 - Web Systems and Architecture, Fall 2020
- [4] INFO624 - Information Retrieval Systems, Summer 2020
- [3] INFO202 - Data Curation, Spring 2020
- [2] INFO600 - Web Systems and Architecture, Fall 2019
- [1] CS418 - Web Programming, Spring 2015, Old Dominion University

Students Supervised

- John Nguyen (Drexel BS) – Student Project Supervised
June 2024–present
Title: IPARO Evaluation Framework
- Robert Sammarco (Drexel BS) – NSF Research Experiences for Undergraduates (REU)
June–September 2024
Title: Developing YAMZ (Yet Another Metadata Zoo) for Materials Science Terminology
- Danielle Boccelli – PhD Candidacy Committee Member
April 2024–present
- Sonia Pascua – PhD Dissertation Committee Member
June 2023–present
- Deanna Zarrillo – PhD Candidacy Committee Member
April 2023–present
- Hyung Wook Choi – PhD Advisor
September 2022–present
- Christopher Rauch – PhD Advisor
September 2020–present
- Samantha Grabus – PhD Dissertation Committee Member
April 2021–May 2023
- Hanieh Razzaghi (Drexel PhD) – PhD Dissertation Committee Member
June 2021–September 2023
- Hyung Wook Choi (Drexel MS) – Student Project Supervised
June 2021–March 2022
- Scott McClellan (Drexel MS) – Student Project Supervised (Independent Study)
March–June 2020
Title: Enterprise Content Management, the Knowledge Graph & Everything Else

Sponsored Projects

External Funding Sources

- As Primary Investigator: \$558,406
- As Co-Primary Investigator: \$396,691

2024–2026	Preserving Personalized Advertisements for More Accurate Web Archives Amount: \$398,927.00 Sponsor/Program: Institute of Museum and Library Services, National Leadership Grants Role: PI
2022–2024	Saving Ads: Assessing and Improving Web Archives' Holdings of Online Advertisements Amount: \$149,479.00 Sponsor/Program: Institute of Museum and Library Services, National Leadership Grants Role: PI
2022	Venom: Archiving the Dark Web Amount: \$10,000.00 Sponsor: MITRE Corporation Role: PI
2021–2024	Examining the effects of academic mobility on individual professors' research activity and institutional human capital at HBCUs Amount: \$396,691.00 Sponsor/Program: National Science Foundation, Science of Science: Discovery, Communication, and Impact Role: Co-PI
2021–2022	Advancing Access Regulation to Private Content Preserved from the Web Amount: \$7,000.00 Sponsor/Program: Drexel University Office of Research, 2021 Faculty Summer Research Awards for Tenure/Tenure-Track Faculty Role: PI
2021–2023	LIS Education And Data Science-Integrated Network Group (LEADING) Amount: \$887,154.00 Sponsor/Program: Institute of Museum and Library Services, Laura Bush 21st Century Librarian Program Role: Senior Personnel
2020–2021	Mailbag: A Stable Package for Email in Multiple Formats Amount: \$63,890.00 Sponsor/Program: Andrew W. Mellon Foundation, University of Illinois program, Email Archives: Building Capacity and Community Role: Advisory Board

Awards and Recognition

- [A10] Best Paper Award Finalist, ACM/IEEE JCDL 2018.
- [A9] Best Poster Award, ACM/IEEE JCDL 2018.
- [A8] Best Poster Award, ACM/IEEE JCDL 2017.
- [A7] Donald W. Reynolds Journalism Institute Scholar, 2016.
- [A6] Best Poster Award, ACM/IEEE JCDL 2015.
- [A5] Best Student Paper Award, ACM/IEEE JCDL 2014.
- [A4] NASA Virginia Space Grant Consortium Graduate Fellow, 2014.
- [A3] Acknowledged Contributor, RFC7089: HTTP Framework for Time-Based Access to Resource States – Memento, 2013.

[A2] Future Steward Innovation Award Recipient, National Digital Stewardship Alliance (NDSA) / Library of Congress, 2012.

[A1] Featured Graduate Student, Old Dominion University Department of Computer Science, 2012.

External Professional Service

- Program Committee (Referee), ACM Conference on Web Science (WebSci), 2025, 2024, 2023, 2022.
- Program Committee (Referee), iConference, 2025, 2024, 2023, 2022.
- Organizing Committee, Web Presence, ACM/IEEE Joint Conference on Digital Libraries, 2024.
- Referee, ACM International Conference on Information and Knowledge Management (CIKM), 2024.
- Organizing Committee, Publicity Chair, ACM Conference on Information and Knowledge Management (CIKM), 2023.
- Program Committee (Referee), International Conference on Asia-Pacific Digital Libraries (ICADL), 2023.
- Reviewer, SoftwareX, May 2023.
- Reviewer, Internet Histories, May 2023.
- Program Committee (Referee), International Conference on Digital Preservation, 2023.
- Funding Reviewer, the Dutch Research Council (NWO), 2023.
- Reviewer, Journal of the Association for Information Science and Technology (JASIST), November 2022.
- Conference Program Chair, ACM/IEEE Joint Conference on Digital Libraries, 2023.
- Senior Program Committee, ACM/IEEE Joint Conference on Digital Libraries, 2022.
- Conference Session Chair, ACM/IEEE Joint Conference on Digital Libraries, 2021.
- Reviewer, Journal of Computer Security, 2021.
- Managing Editor, International Journal on Digital Libraries, 2021–present.
- Reviewer, Journal of the Association for Information Science and Technology (JASIST), October 2021.
- Organizing Committee, Virtual Meeting Support Chair, ACM/IEEE Joint Conference on Digital Libraries, 2021.
- Program Committee (Referee), European Conference on Information Retrieval, 2020.
- Reviewer, International Journal on Digital Libraries, 2018.
- Organizing Committee, Publicity Chair, ACM/IEEE Joint Conference on Digital Libraries, 2018-2019.
- Program Committee (Referee), ACM/IEEE Joint Conference on Digital Libraries, 2024, 2022, 2021, 2020, 2019, 2018, 2012.
- Program Committee (Referee), Access 2017 Conference, 2017.

University Service

- Reviewer, Faculty Summer Research Awards, Drexel University Office of Faculty Affairs, 2024.
- Drexel University MSIS Curriculum Committee, 2022–present.
- Archives Update Task Force (MSI LIS Working Group), 2021–2022.
- Drexel University Senate Student Life Committee (SCSL), 2021–2023.
- IS Tenure Track faculty Search Committee, 2020–2021.
- Drexel COVID Return to Campus Committee, 2020.

Software

Through my academic career I have both created and publicly released permissively licensed open source software:

- InterPlanetary Wayback (ipwb) (617 stars on GitHub)
Archival index and replay suite to integrate WARC files and the InterPlanetary File System (ipfs).
<https://github.com/oduwsdl/ipwb>
- Web Archiving Integration Layer (WAIL) (355 stars on GitHub)
Desktop application to allow non-technical users to easily leverage institutional grade web archiving tools.
<https://github.com/machawk1/wail>
- WARCreate (216 stars on GitHub)
Google Chrome extension to allow users to create web archive (WARC) files from any web page.
<https://github.com/machawk1/warcreate>
- Mink (50 stars on GitHub)
Google Chrome extension to integrate the live and archive web while a user browses and encourage one-click submission to web archives.
<https://github.com/machawk1/mink>