

Ian Milligan

Associate Professor
Department of History
Faculty of Arts, University of Waterloo
200 University Avenue West
Waterloo ON N2L 3G1 Canada
+1 (519) 888-4567, ext. 32775
i2milligan@uwaterloo.ca

Education

- 2012, Doctor of Philosophy (History), York University
- 2007, Master of Arts in History, York University
- 2006, Bachelor of Arts in History (Honours), Queen's University

Professional Experience

- 2017 – Present, Associate Professor, Department of History, University of Waterloo.
- 2012 – 2017, Assistant Professor, Department of History, University of Waterloo.
- 2012, SSHRC Postdoctoral Fellow, Department of History, Western University.

Visiting Appointments

- 2019, Visiting International Scholar, Lehrstuhl für Digital Humanities, University of Passau.
- 2016 – 2017, Marshall McLuhan Centenary Fellow, Faculty of Information Studies, University of Toronto.

Scholarly Awards

- 2020, Honourary Archivist Award, Association of Canadian Archivists.
- 2019, Arts Excellence in Research Award, University of Waterloo.
- 2016, Outstanding Early Career Award, Canadian Society for Digital Humanities.
- 2015, Shortlisted for the John A. Macdonald Prize in best Canadian historical non-fiction.
- 2014, Outstanding Performance Award, University of Waterloo.
- 2013, Best Article Prize, *Journal of the Canadian Historical Association*.

RESEARCH ACTIVITY

Publications

Books

- **Ian Milligan**, *History in the Age of Abundance? How the Web is Transforming Historical Research*. Montreal & Kingston: McGill-Queen's University Press, 2019.
- Shawn Graham, **Ian Milligan**, and Scott Weingart, *Exploring Big Historical Data: The Historian's Macroscopic*. London: Imperial College Press, 2016.

- **Ian Milligan**, *Rebel Youth: 1960s Labour Unrest, Young Workers, and New Leftists in English Canada*. Vancouver: UBC Press, 2014. *Shortlisted for the John A. Macdonald Prize in Canadian History (now CHA Best Scholarly Book in Canadian History Prize)*.

Edited Collection

- Niels Brügger and **Ian Milligan**, eds. *SAGE Handbook of Web History*. London: SAGE, 2018.

Peer-Reviewed Journal Articles

- Nick Ruest, Samantha Fritz, Ryan Deschamps, Jimmy Lin, and **Ian Milligan**, “From Archive to Analysis: Accessing Web Archives at Scale through a Cloud-Based Interface,” *International Journal of Digital Humanities*. Accepted and in production.
- **Ian Milligan**, “We Are All Digital Now: Digital Photography and the Reshaping of Historical Practice,” *Canadian Historical Review*. Forthcoming, December 2020.
- **Ian Milligan**, “La historia en la era de la abundancia: archivos web e investigación histórica,” *Historia Y Memoria*, Special 10th Anniversary Edition, 2020.
- Samantha Fritz, **Ian Milligan**, Nick Ruest, and Jimmy Lin. “Building Community at a Distance: A Datathon During COVID-19,” *Digital Library Perspectives*. Published ahead-of-print, August 2020.
- Emily Maemura, Nicholas Worby, **Ian Milligan**, and Christoph Becker, “If These Crawls Could Talk: Studying and Documenting Web Archives Provenance,” *Journal of the Association for Information Science and Technology*. 2018, vol. 69, issue 10 (October 2018): 1223-1233.
- Gabriel A. Devenyi, Rémi Emonet, Rayna M. Harris, Kate L. Hertweck, Damien Irving, **Ian Milligan**, Greg Wilson, “Ten Simple Rules for Collaborative Lesson Development.” *PLOS Computational Biology*, Vol. 14, Number 3, March 2018: e1005963.
- Jimmy Lin, **Ian Milligan**, Jeremy Wiebe, and Alice Zhou. “Warcbase: Scalable Analytics Infrastructure for Exploring Web Archives,” *ACM Journal of Computing and Cultural Heritage*, Vol. 10, Issue 4, July 2017: 22:1-22:30.
- **Ian Milligan**, “Lost in the Infinite Archive: The Promise and Pitfalls of Web Archives,” *International Journal of Humanities and Arts Computing*, Vol. 10, No. 1-2 (2016): 78-94.
- **Ian Milligan**, Nick Ruest, and Anna St-Onge, “The Great WARC Adventure : Using SIPS, AIPS and DIPS to document SLAAPs,” *Digital Studies / Le champ numérique*, Vol. 6, 2016.
- **Ian Milligan**, “‘A Haven for Perverts, Criminals, and Goons’: Children and the Battle for and Against Canadian Internet Regulation, 1991-1999,” *Histoire Sociale/Social History*, vol. 47, No. 96 (May 2015): 245-274.
- **Ian Milligan**, “Illusionary Order: Online Databases and the Changing Foundation of Canadian Historiography, 1997-2010,” *Canadian Historical Review*, Vol. 94, No. 4 (December 2013): 540-569.
- **Ian Milligan**, “Mining the ‘Internet Graveyard’: Rethinking the Historians’ Toolkit,” *Journal of the Canadian Historical Association*, Vol. 23, No. 2 (2012 edition, published

Spring/Summer 2013): 21-64. **Winner of the 2013 JCHA Best Article Prize.**

- **Ian Milligan**, “Coming off the Mountain: Forging an Outward Looking New Left at Simon Fraser University,” *BC Studies: The British Columbian Quarterly*, Vol. 171 (Autumn 2011): 69-91.
- **Ian Milligan**, “‘This Board Has a Duty to Intervene,’ Challenging the Spadina Expressway Through the Ontario Municipal Board, 1963-1971,” *Urban History Review/Revue d’histoire urbaine*, Vol. 39, No. 2 (Spring 2011): 25-37.
- **Ian Milligan**, “‘The Force of All Our Numbers:’ New Leftists, Labour, and the 1973 Artistic Woodwork Strike,” *Labour/Le Travail*, 66 (Fall 2010): 37-71.
- **Ian Milligan**, “Sedition in Wartime Ontario: The Trials and Imprisonment of Isaac Bainbridge, 1917-1918,” *Ontario History*, Vol. 100, No. 2 (Autumn 2008): 150-177.

Peer-Reviewed Conference Publications

- Nick Ruest, Jimmy Lin, **Ian Milligan**, and Samantha Fritz. “The Archives Unleashed Project: Technology, Process, and Community to Improve Scholarly Access to Web Archives.” *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries*, 2020: 157-166.
- Jimmy Lin, **Ian Milligan**, Douglas W. Oard, Nick Ruest, and Katie Shilton. “We Could, but Should We? Ethical Considerations for Providing Access to GeoCities and Other Historical Digital Collections.” *Proceedings of the ACM SIGIR Conference on Human Information Interaction and Retrieval (CHIIR)*, 2020: 135-144.
- Ryan Deschamps, Samantha Fritz, Jimmy Lin, **Ian Milligan**, and Nick Ruest. “The Cost of a WARC: Analyzing Web Archives in the Cloud.” *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries*, 2019: 261-264.
- **Ian Milligan**, Nathalie Casemajor, Samantha Fritz, Jimmy Lin, Nick Ruest, Matthew S. Weber, and Nicholas Worby. “Building Community and Tools for Analyzing Web Archives through Datathons.” *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries*, 2019: 265-268.
- Emily Maemura, Christoph Becker, and **Ian Milligan**. “Understanding Computational Web Archives Research Methods Using Research Objects,” *IEEE Big Data Workshop in Computational Archival Science*, IEEE Big Data, December 2016: 3250-3259.
- **Ian Milligan**, Nick Ruest, and Jimmy Lin, “Content Selection and Curation for Web Archiving: The Gatekeepers vs. the Masses,” *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries*, 2016: 107-110.
- Andrew Jackson, Jimmy Lin, **Ian Milligan**, and Nick Ruest, “Desiderata for Exploratory Search Interfaces to Web Archives in Support of Scholarly Activities,” *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries*, 2016: 103-106.

Peer-Reviewed Book Chapters

- **Ian Milligan** and Tom J. Smyth, “Studying the Web in the Shadow of Uncle Sam: The Case of the .ca Domain,” in *The Historical Web and Digital Humanities: The Case of*

National Web Domains, eds. Niels Brügger and Ditte Laursen (London: Routledge, 2018): 45-63.

- **Ian Milligan**, “Learning to ‘See’ the Past at Scale: Exploring Web Archives through Hundreds of Thousands of Images,” in *Seeing the Past with Computers*, ed. Kevin Kee and Timothy Compeau (Ann Arbor: University of Michigan Press, 2018): 116-136.
- **Ian Milligan**, “Historiography and the Web,” in *SAGE Handbook of Web History*, eds. Niels Brügger and Ian Milligan. London: SAGE Publications, 2018: 3-15.
- **Ian Milligan**, “Exploring Web Archives in the Age of Abundance: The Case of GeoCities,” in *SAGE Handbook of Web History*, eds. Niels Brügger and Ian Milligan. London: SAGE Publications, 2018: 344-358.
- **Ian Milligan** and Robert Warren, “Big Data and the Coming Historical Revolution: From Black Boxes to Models,” in *Big Data in the Arts and Humanities: Theory and Practice*, eds. Giovanni and Daniela Carlucci. Boca Raton: CRC Press (Taylor & Francis Group), 2018: 65-76.
- **Ian Milligan**, “Welcome to the Web: The Online Community of GeoCities During the Early Years of the World Wide Web,” in *The Web as History: Using Web Archives to Understand the Past and the Present*, eds. Niels Brügger and Ralph Schroeder (London: UCL Press, 2017): 137-158.
- William J. Turkel and **Ian Milligan**, “The Challenge of ‘High-Throughput’ Computational Methods,” in *From Big Bang to Global Civilization: A Big History Anthology*. Eds. Barry Rodrigue, Leonid Grinin, and Andrey Korotayev. New Delhi, India: Primus Books, 2015: 145-157.

Book and Software Reviews

- Review of Dennis G. Molinaro, *An Exceptional Law: Section 98 and the Emergency State, 1919-1936* (Toronto: University of Toronto Press, 2017), in *University of Toronto Quarterly*, Vol. 88, No. 3 (Summer 2019).
- Review of Lara Campbell, Dominique Clément, and Gregory S. Kealey, eds., *Debating Dissent: Canada and the Sixties* (Toronto: University of Toronto Press, 2012), in *Canadian Historical Review*, Vol. 94, No. 4 (December 2013).
- Review of Benjamin Isitt, *Militant Minority: British Columbia Workers and the Rise of a New Left, 1948-1972* (Toronto: University of Toronto Press, 2011), in *Histoire Sociale/Social History*, Vol. 46, No. 92 (November 2013).
- (With Shawn Graham) Review: “MACHINE Learning for Language Toolkit (MALLET),” in *Journal of Digital Humanities*, Vol. 2, No. 1 (Spring 2013).
- Review: “The Alberta Federation of Labour’s Centennial Website: A Fantastic Resource (if you can find it),” in *Oral History Forum/Forum d’histoire orale* 33 (2013).
- Review of Jefferson Cowie, *Stayin’ Alive: The 1970s and the Last Days of the Working Class* (New York: New Press, 2010), in *Labour/Le Travail*, 69 (Spring 2012): 235-237.
- Review of Paul Mason, *Live Working or Die Fighting: How the Working Class Went Global* (Chicago: Haymarket Books, 2010, in *Labor History*, 52.3 (September 2011):

361-363.

- Review of James Pitsula, *New World Dawning: The Sixties at Regina Campus* (Regina: Canadian Plains Research Centre, 2008), in *Canadian Historical Review*, 90:4 (December 2009): 818-820.
- Review of Ian McKay, *Reasoning Otherwise: Leftists and the People's Enlightenment in Canada, 1890-1920* (Toronto: Between the Lines, 2008), *H-Canada*. February 2009.

Non-Peer Reviewed Professional Contributions

- **Ian Milligan**, "How Can We Be Ready to Study History in the Age of Abundance? A response," *American Historical Review*, Vol. 125, Issue 4, October 2020. <https://academic.oup.com/ahr/article/125/4/1347/5933597?guestAccessKey=0635fd30-0c60-4884-94f5-bbf81d50d883>.
- Esyllt Jones, **Ian Milligan**, and Shelley Sweeney. "Will Covid-19 become the 21st century's forgotten pandemic?" *Globe and Mail*, 5 October 2020. <https://www.theglobeandmail.com/canada/article-will-covid-19-become-the-21st-century-s-forgotten-pandemic/>
- **Ian Milligan**, "2020 is a year for the history books, but not without digital archives," *The Conversation*, September 2020. <https://theconversation.com/2020-is-a-year-for-the-history-books-but-not-without-digital-archives-140234>
- **Ian Milligan**, "Interdisciplinary scholarship needs to be normalized within professions," *University Affairs*, August 2020. <https://www.universityaffairs.ca/career-advice/career-advice-article/interdisciplinary-scholarship-needs-to-be-normalized-within-professions/>
- **Ian Milligan**, "Don't despair if your teen wants to major in history instead of science," *The Conversation*, November 2019. <https://theconversation.com/dont-despair-if-your-teen-wants-to-major-in-history-instead-of-science-125181>
- **Ian Milligan**, "Historians' archival research looks quite different in the digital age," *The Conversation*, August 2019. <https://theconversation.com/historians-archival-research-looks-quite-different-in-the-digital-age-121096>
- **Ian Milligan**, "Getting Ready to Study the Age of Abundance," *Canadian Issues/Themes Canadiens*, Fall/Winter 2018: 36-39.
- **Ian Milligan**, "The Problem of History in the Age of Abundance," *The Chronicle of Higher Education*, December 2016.
- Nick Ruest and **Ian Milligan**, "An Open-Source Strategy for Documenting Events: The Case Study of the 42nd Canadian Federal Election on Twitter," *Code4Lib*, 32, April 2016. (This journal uses a robust form of editorial review)
- **Ian Milligan**, "Open Data's Potential for Political History," *Canadian Parliamentary Review*, vol. 37, no. 4 (2014).
- Shawn Graham, **Ian Milligan**, and Scott Weingart, "Writing The Historian's Macroscopic in Public," *Perspectives on History* (American Historical Association), October 2014.
- **Ian Milligan**, "Does History Matter?" *Literary Review of Canada*, May 2014.

- **Ian Milligan**, “Exploring the Web Through the Programming Historian,” *Canadian Historical Association Bulletin*, October 2013.
- **Ian Milligan**, “Archives: Preserve Our Digital Heritage,” *Nature*, 497 (16 May 2013).

Grants (\$2,763,493 CAD total; \$2,379,240 CAD as PI):

- **Andrew W. Mellon Foundation** (“Integrating Archives Unleashed Cloud with Archive-It”). Principal Investigator (PI): Ian Milligan, Co-I: Jimmy Lin, Nick Ruest, Jefferson Bailey. \$1,084,087 CAD. 2020 – 2023.
- **University of Waterloo AI Institute and Microsoft**, AI for Social good Grant (“MANNERSS: Multilingual Adaptation for NER in the Social Sciences”). Principal Investigator (PI): Ian Milligan, Co-I: Jimmy Lin. \$25,000 CAD. 2020 – 2021.
- **Social Sciences and Humanities Research Council**, Insight Grant (“Averting the Digital Dark Age: The Digital Preservation Movement, 1991-2001”). Principal Investigator (PI): Ian Milligan. \$97,602 CAD. 2020 – 2023.
- **Social Sciences and Humanities Research Council**, Connection Grant (“Workshop on Quantitative Analysis and the Digital Turn in Historical Studies”). Principal Investigator (PI): Ian Milligan, Co-I: Chad Gaffield. \$11,779 CAD. 2018 – 2019.
- **Institute of Museum and Library Services**, Laura Bush 21st Century Librarian Program (“Continuing Education to Advance Web Archiving”). PIs: Zhiwu Xie and Edward Fox, Partners: Los Alamos National Lab Research Library, Old Dominion University Department of Computer Science, the **University of Waterloo Department of History**, the Internet Archive, and George Washington University Libraries. \$248,451.00 USD, or \$314,824 CAD. 2018 – 2020.
- **Andrew W. Mellon Foundation** (“Archives Unleashed Project”). PI: **Ian Milligan**, Co-PIs: Nick Ruest and Jimmy Lin. \$610,625 CAD. 2017-20.
- **Microsoft Research**, Microsoft Azure Research Award (“Web Archives for Longitudinal Knowledge”). PI: **Ian Milligan**. \$20,000 USD, or \$26,804 CAD. 2016-17.
- **Compute Canada**, Research Platforms and Portals Competition (“Web Archives for Longitudinal Knowledge”), \$11,635 CAD. PI: **Ian Milligan**, Co-I: Nick Ruest (York University). 2016-19.
- **Arts and Humanities Research Council (UK)** (“Born-Digital Data and Methods for History and the Humanities”). £32,210 GBP, or \$60,125 CAD. PI: Jane Winters (University of London), Co-I: Tobias Blanke (King’s College, London), Main Partners: Sonia Ranade (National Archives of the UK), Anne Alexander (University of Cambridge), James Baker (University of Sussex), **Ian Milligan** (University of Waterloo), Jason Webber and Jonathan Pledge (British Library), Peter Webster (Webster Research and Consulting). 2016-17.
- **Social Sciences and Humanities Research Council**, Connection Grant (“Unlock Your Web Archives Hackathon”). \$23,715 CAD. PI: **Ian Milligan**, Co-Is: Jimmy Lin (University of Waterloo), Matthew Weber (Rutgers University), Nathalie Casemajor (Université du Québec en Outaouais), Nicholas Worby (University of Toronto). 2015-16.

- **Social Sciences and Humanities Research Council**, Insight Grant (“A Longitudinal Analysis of the Canadian World Wide Web as a Historical Resource, 1996-2014”). \$257,541 CAD. PI: **Ian Milligan**, Co-Is: Nick Ruest (York University), William Turkel (Western University). 2015-20.
- **Ontario Ministry of Research and Innovation**, Early Researcher Award (“A Longitudinal Analysis of the Canadian World Wide Web as a Historical Resource, 1996–2014”). \$150,000 CAD. PI: **Ian Milligan**. 2015-20.
- **Social Sciences and Humanities Research Council**, Connection Grant (“New Directions in Active History: Institutions, Communication, and Technologies”). \$19,304 CAD. PI: Thomas Peace (Huron University College), Co-Is: **Ian Milligan**, Jim Clifford (University of Saskatchewan), Daniel Ross (York University), Kaleigh Bradley (York University), Krista McCracken (Algoma University), Andrew Nurse (Mount Allison University). 2015-16.
- **Social Sciences and Humanities Research Council**, Insight Development Grant (“An Infinite Archive?”). \$74,952 CAD. PI: **Ian Milligan**, Co-I: William Turkel (Western University). 2013-15.
- **University of Waterloo/Social Sciences and Humanities Research Council** Institutional Block Grant, June 2013 – June 2015. \$5,500 CAD. PI: **Ian Milligan**. 2013-15.

Invited Keynotes

- “You Shouldn’t Need to be a Web Historian to Use Web Archives,” Keynote at WARCNet, Aarhus, Denmark. April 2020. (Delivered remotely during COVID-19)
- “Working with Cultural Heritage at Scale: Developing Tools and Platforms to Study the Age of Abundance,” Featured Talk at LaTeCH-CLfL 2019 (part of NAACL 2019), Minneapolis, Minnesota. June 2019.
- “From Archiving to Analysis: Current Trends and Future Developments in Web Archive Use,” Keynote at the “Archiving the Web?”, Hilversum, Netherlands. October 2018.
- “Web Archives and History,” Keynote at the Association of Canadian Archivists Annual Meeting, Edmonton AB. June 2018.
- “Big Data and History (‘Or How this Historian Learned to Stop Worrying and Love Big Data,’” Keynote at SFU Library Love Your Data Week 2018, Simon Fraser University, Burnaby BC. February 2018.
- “Learning to Collaborate (or why you should hang out with librarians,” Keynote at Digital Pedagogy Institute 2017, Brock University, St. Catharines ON. August 2017.
- “Archives Unleashed: Unlocking Born-Digital Sources through Interdisciplinary Collaboration,” Keynote at Canadian Society for Digital Humanities, University of Calgary, Calgary AB. May 2016.
- “Lost in the Infinite Archive? Web Archives for Historical Research Today... and Tomorrow,” Keynote at Web Archives 2015: Capture, Curate, Analyze, University of Michigan, Ann Arbor MI. November 2015.

- “Preparing for the Infinite Archive: Social Historians and the Digital Deluge,” Keynote at Tri-University History Conference: New Approaches to History, University of Guelph, Guelph ON. March 2013.

Invited Lectures and Workshops

- “La historia en la era de la abundancia: archivos web e investigación histórica,” Invited Lecture as part of “The Historiographical Experience” event, Universidad Pedagógica y Tecnológica de Colombia. Virtual due to COVID-19. October 2020.
- “History in the Age of Abundance: Skills, Tools, and Methods for the 21st-Century Historian,” Invited Lecture at York University Department of History Historian’s Craft Series, Toronto ON. January 2020.
- (With Nick Ruest) “Capturing the Web Today for Tomorrow: Innovations in Capturing and Analyzing Social Media and Websites for the New Scholarly Record,” Invited Lecture at York University Libraries, Toronto ON. March 2017.
- “Web Scraping and Digital History,” Invited Workshop at the American Historical Association’s Getting Started in Digital History event, Denver CO. January 2017.
- “Making Sense of Web Archives: Facing Big Data from the Historian’s Perspective,” Invited Lecture at Library of Congress, Washington DC. June 2016.
- “Historians and the Impending Big Data Deluge: How the Web Changes Everything,” Invited Lecture at National Endowment for the Humanities, Washington DC. June 2016.
- (With Nick Ruest) “Walking the WALK; Facilitating Interdisciplinary Web Archive Collaboration,” Invited Lecture at the University of Alberta, Edmonton AB. June 2016.
- “Web Archives and are Reshaping Today’s Historical Record,” Invited Lecture, University of Saskatchewan, Saskatoon SK. March 2016.
- “The Digital Humanities and Born-Digital Sources: Web Archives, Tweets, and the Record of Today,” Invited Lecture at Institute for Global History Speaker Series, Georgetown University, Washington DC. February 2016.
- “Big Data and History: Seeing the Past through a Macroscopic,” Invited Lecture at Selskabet for Samtidshistorisk Forskning (Danish Society for Research in Contemporary History), Copenhagen Denmark. January 2016.
- “Web Histories and Web Archives,” Invited Lecture at Government Information Day, Waterloo ON. December 2015.
- “The Challenge of Digital Sources in the Web Age: Common Tensions Across Three Web Histories, 1994-2015,” Invited Lecture at Digital Curation Institute, University of Toronto, Toronto ON. October 2015.
- “Between Content and Metadata: A Historian Faces Technical and Professional Challenges in Three Types of Web Archives,” Invited Lecture at British Library, London. October 2015.
- “The Challenge of Digital Sources in the Web Age: Common Tensions Across Three Web Histories, 1994-2015,” Invited Lecture at Digital History Seminar, Institute for

Historical Research, London UK. September 2015.

- “Welcome to the GeoHood: Exploring Early Web History through the GeoCities Torrent, 1994-2009,” Invited Lecture at Centre for Internet Studies, University of Aarhus, Aarhus, Denmark. September 2015.
- “Accessing Historical Data En Masse,” Invited Workshop at Massachusetts Institute of Technology, Cambridge, MA. January 2015.
- “Big Data and History: How Web Archives Will Challenge, Complement and Enhance the Historical Profession,” Invited Lecture at Acadia Institute for Data Analytics, Acadia University, Wolfville NS. November 2014.
- “Historians and the Web,” Invited Lecture at Big Data in the SSHRC Disciplines: Data from the Past, Present and Future, Western University, London ON. March 2014.
- “Historians and the Web: Challenges and Potentials of the Infinite Archive,” University of Guelph DigiCafe Series, University of Guelph, Guelph ON. March 2014.

Selected Conference Presentations (lifetime total: 58)

- **Ian Milligan**, “Integrating the Archives Unleashed Cloud with Archive-It,” *Archive-It Annual Partner Meeting*, Virtual. October 2020.
- **Ian Milligan**, “Becoming a Desk(top) Profession: Digital Photography and the Changing Landscape of Archival Research,” *American Historical Association*, New York NY. January 2020.
- Nick Ruest and **Ian Milligan**, “Lowering the Barrier to Access: The Archives Unleashed and Cloud Project,” *The Web that Was Conference*, Amsterdam Netherlands. June 2019.
- Nick Ruest and **Ian Milligan**, “Web Archives Analysis at Scale with the Archives Unleashed Cloud,” *Coalition for Networked Information*, St. Louis, Missouri. April 2019.
- **Ian Milligan**, “Opening up WARC: The Archives Unleashed Toolkit and Cloud Projects,” *International Internet Preservation Consortium*, Wellington, New Zealand. November 2018.
- **Ian Milligan**, “The Ethics of Studying GeoCities,” *Ethics and the Archived Web*, New York, NY. February 2018.
- **Ian Milligan**, “Too Much Information: Transparency, Metadata, and Search in the Age of Web Archives,” *American Historical Association*, Washington DC. January 2018.
- **Ian Milligan**, “Researcher Access for Web Archives: Our Experiences,” *Mid-Atlantic Regional Archives Conference*, Buffalo, New York. October 2017.
- Ziquan Wang, Borui Lin, **Ian Milligan**, and Jimmy Lin. “Topic Shifts Between Two US Presidential Administrations,” *Web Archives and Digital Libraries*, Toronto, ON. June 2017.
- Emily Maemura, Nicholas Worby, Christoph Becker, and **Ian Milligan**, “Origin Stories: Documentation for Web Archives Provenance,” *International Internet Preservation Consortium/RESAW*, London, England. June 2017.

- **Ian Milligan**, “‘Pages by Kids, for Kids’: Unlocking Childhood and Youth History through the GeoCities Web Archive,” *International Internet Preservation Consortium/RESAW*, London, England. June 2017.
- Nick Ruest and **Ian Milligan**, “Learning to WALK (Web Archives for Longitudinal Knowledge): Building a National Web Archiving Collaborative Platform,” *International Internet Preservation Consortium/RESAW*, London, England. June 2017.
- **Ian Milligan** and Nick Ruest, “Building a National Web Archiving Collaborative Platform,” *Canadian Society for Digital Humanities*, Toronto, Ontario. May 2017.
- **Ian Milligan**, “Are we Ready to Write the History of the 1990s?” *Canadian Historical Association*, Toronto, ON. May 2017.
- **Ian Milligan**, “Collaborative Digital History: Working with Librarians and Computer Scientists,” *American Historical Association*, Denver, Colorado. January 2017.
- **Ian Milligan**, Jimmy Lin, Jeremy Wiebe, and Alice Zhou, “Exploring and Discovering Archive-It Collections with Warchbase,” *Digital Humanities 2016*, Krakow, Poland, July 2016.
- **Ian Milligan** and Nick Ruest, “Enabling Access to Canadian Archival Collections through WebArchives.ca,” *Canadian Society for Digital Humanities*, Calgary, Alberta, June 2016.
- Nick Ruest and **Ian Milligan**, “An exploratory look at 3,039,804 #elxn42 tweets,” *International Internet Preservation Consortium Web Archiving 2016*, Reykjavik, Iceland, April 2016.
- Matthew Weber and **Ian Milligan**, “Archives Unleashed: Hackathons as a Tool for Engaging Scholars with Web Archives,” *International Internet Preservation Consortium Web Archiving 2016*, Reykjavik, Iceland, April 2016.
- Nick Ruest and **Ian Milligan**, “Enabling Access to Old Wu-Tang Clan Fan Sites: Facilitating Interdisciplinary Web Archive Collaboration,” *Code4Lib 2016*, Philadelphia, Pennsylvania. March 2016.
- **Ian Milligan**, “Making Sense of the Web: Finding Community in the GeoCities Web Archives,” *American Historical Association*, Atlanta, Georgia. January 2016.
- **Ian Milligan**, “Understanding early Web history through three case studies: methodological and technical challenges,” *Times and Temporalities of the Web conference*, Institut des sciences de la communication, Paris, France. December 2015.
- **Ian Milligan**, Jimmy Lin, and Jeremy Wiebe, “Between Metadata and Content: Exploring Canadian Political History with Archive-It’s Research Services,” *Web Archives 2015: Capture, Curate, Analyze conference*, University of Michigan, Ann Arbor, MI. November 2015.
- Jimmy Lin and **Ian Milligan**, “Warchbase: Building a Scalable Platform on HBase and Hadoop,” *Web Archiving Collaboration: New Tools and Methods*, Columbia University, New York, New York. June 2015.

- **Ian Milligan**, “Welcome to the GeoHood: Using the GeoCities Web Archive to Explore Virtual Communities,” *Web Archives as Scholarly Sources: Issues, Practices, and Perspectives*, Aarhus Denmark. June 2015.
- **Ian Milligan**, “WARCs, WATs, and wgets: Opportunity and Challenge for a Historian Amongst Three Types of Web Archives,” *International Internet Preservation Committee*, Palo Alto CA. April 2015.
- **Ian Milligan**, “The Promise of WebARChive Files: Exploring the Internet Archive as a Historical Resource,” *American Historical Association*, New York City, NY. January 2015.
- **Ian Milligan**, “Clustering Search to Navigate A Case Study of the Canadian World Wide Web as a Historical Resource,” *Digital Humanities 2014*, Lausanne, Switzerland. July 2014.
- **Ian Milligan** and Nick Ruest, “The Great WARC Adventure: WARCs from Creation to Use,” *Canadian Archivists Association*, Victoria, BC. June 2014. (Authorship: 50%)

TEACHING EXPERIENCE

Graduate Supervision

Doctoral Supervision

- Eric Vero, 2020 – Present. (Co-supervision w/ Jay Dolmage, English)
- Rebecca MacAlpine, 2018 – Present.
- Sarah McTavish, 2016 – 2020.

Doctoral Committees

- Ryan D'Eon, Committee Member. 2020 – Present.
- Thomas Littlewood, Committee Member. 2019 – Present.
- Katherine MacKinnon (Faculty of Information, University of Toronto), Committee Member. 2019 – Present.
- Philip Miletic (English, University of Waterloo), Internal-External Examiner, 2018.
- Victoria Campbell, Committee Member, 2013 – 2017 (defended).
- Kimberly Martin (Faculty of Information & Media Studies, University of Western Ontario), External Examiner, 2016.
- Jason Hawreliak (English. University of Waterloo), Internal-External Examiner, 2013.

Doctoral Fields

- Global Field, 2021.
- Global Field, 2019.
- Canadian History Field, 2017-18.

- Global Field, 2017.

Masters Supervision

- Rebecca Nickerson, Current.
- Eric Vero, 2017.
- Denée Renouf, 2017.
- Patrick O’Leary, 2016.
- Katie Mackinnon, 2016.
- David Hussey, 2015.

Masters Committees

- Jake Harper, 2018.
- David Alexander, 2017.
- Danielle McDonald, 2015.
- Shelby Riddell, 2014.
- Matt Ferguson, 2014.
- Eric Reis, 2014.
- Kira Burt, 2013.
- Matt Ferguson, 2013.

Formal Classroom Teaching

University of Waterloo

The standard teaching load in the Department of History at the University of Waterloo is 2/2.

Academic Term	Courses
Fall 2020	<i>Research Course Release</i>
Spring 2020	HIST 216: A Long History of the Internet <i>(last-minute addition due to COVID-19)</i>
Winter 2020	HIST 216: A Long History of the Internet <i>Research Course Release</i>
Fall 2019	Parental Leave
Winter 2019	ARTS 490: Socio-Cultural Implications of Artificial Intelligence <i>Research Course Release</i>
Fall 2018	HIST 216: A Long History of the Internet <i>Online Course Development Course Release</i>
Winter 2018	HIST 216: A Long History of the Internet <i>Research Course Release</i>
Fall 2017	Parental Leave
Winter 2017	HIST 109: Ten Days that Shook the World

	HIST 303: Digital History HIST 602: Canadian History Projects Course
Fall 2016	HIST 250: What is History?
Winter 2016	HIST 250: What is History? HIST 602: Canadian History Projects Course
Fall 2015	Pre-Tenure Sabbatical
Winter 2015	HIST 303: Digital History HIST 403B: Canadian History Seminar
Fall 2014	HIST 250: What is History? HIST 403A: Canadian History Seminar
Winter 2014	HIST 303: Digital History HIST 388: Modern Canada
Fall 2013	HIST 250: What is History? Pre-Tenure Course Release
Winter 2013	HIST 303: Digital History HIST 388: Modern Canada
Fall 2012	HIST 255: History of Childhood and Youth in Canada Pre-Tenure Course Release

Trent University (Sessional Instructor)

Academic Term	Courses
Winter 2012	CAST/HIST 2285H – Canada in the 1960s

SERVICE TO THE UNIVERSITY AND PROFESSION

Editorships

- Editor, *Internet Histories* (Academic Journal). 2016 - Present.
- Special Issue Editor, *International Journal of Digital Libraries*. 2017 – 2018.
- Editor, *Programming Historian*. 2012 – 2018.
- Founding Co-Editor, Activehistory.ca Website. March 2009 – May 2015.
- Book Review Editor, *Left History* (Academic Journal), York University. 2009 – 2011.

Conferences and Events Organized

- Workshop Co-Chair, Joint Conference on Digital Libraries 2020, Xi'an, People's Republic of China. August 2020. [moved to virtual due to COVID-19]
- Archives Unleashed New York City: Web Archives Hackathon (Mellon Funded). PI. March 2020. Columbia University, New York, NY. [moved to virtual due to COVID-19]
- Archives Unleashed Washington DC: Web Archives Hackathon (Mellon Funded). PI. June 2019. George Washington University, Washington DC.
- Archives Unleashed Vancouver: Web Archives Hackathon (Mellon Funded). PI. February 2019. Simon Fraser University, Vancouver BC.

- “Workshop on Quantitative Analysis and the Digital Turn in Historical Studies,” PI. February/March 2019. Fields Institute for Research in Mathematical Sciences, Toronto ON.
- Archives Unleashed Toronto: Web Archives Hackathon (Mellon Funded). PI. April 2018. University of Toronto, Toronto ON.
- Archives Unleashed 4.0: Web Archives Hackathon. Co-Organizer. June 2017, London UK.
- Co-Program Chair, Joint Conference on Digital Libraries 2017, Toronto ON. 2017.
- Archives Unleashed 3.0: Web Archives Hackathon. Co-Organizer. 23-24 February 2017. Internet Archive, San Francisco, CA.
- Posters and Demo Chair, Joint Conference on Digital Libraries 2016, Newark NJ. 2016.
- Archives Unleashed 2.0: Web Archives Hackathon. Co-Organizer. 13-15 June 2016. Library of Congress, Washington DC.
- Archives Unleashed: Web Archives Hackathon. PI and Main Coordinator. 3-5 March 2016. University of Toronto, Toronto ON.

Service to the Profession

- Steering Committee (Elected member), ACM/IEEE Joint Conference on Digital Libraries. 2019 – Present.
- Canadian Research Knowledge Network Preservation and Access Committee. 2018 – Present. Two terms (2018-2020; 2020-2023)
- Library and Archives Canada Acquisition Committee member. 2015 – Present. Two terms (2015 – 2019; 2019 – 2022).

Grant Selection Committees

- Awards to Scholarly Publications Program (ASPP), Publications Committee, 2020 – 2023.
- Canada Foundation for Innovation, Expert Review Committee for Digital Libraries, 2020.
- Insight Development Grant, History Committee (SSHRC), 2020.
- New Frontiers in Research Fund, Government of Canada (SSHRC/NSERC/CIHR), 2019.
- Digital Edition Publishing Grants, National Historical Publications & Records Commission, 2018 and 2019.
- Compute Canada Expert Review Committee for Research Portals and Platforms, 2018.

Editorial/Advisory Boards

- Editorial Board, *Journal of Digital History*, 2020 – Present.
- Editorial Board, *International Journal of Digital Libraries*, 2018 – Present.

- Advisory Board, Computing Cultural Heritage in the Cloud Project, Library of Congress, 2019 – Present.
- Editorial Board, *CA: Journal of Cultural Analytics*, 2016 – Present.
- Editorial Board, Ontario Library Research Cloud (OLRC) Digital Scholarship Advisory Committee member. 2015 – 2016.

Peer Reviewing

- American Historical Review (x3)
- Archivaria
- Archival Science
- BC Studies
- CA: Journal of Cultural Analytics (x3)
- Social History/Histoire Sociale (x2)
- Digital Scholarship in the Humanities (x2)
- Digital Studies (x2)
- Frontiers in Digital History (x2)
- Natural Sciences and Engineering Research Council
- New Media and Society
- Journal of the Canadian Historical Association (x3)
- International Journal on Digital Libraries
- History of Intellectual Culture (x2)
- Historical Methods (x2)
- Historical Studies in Education
- Wilfrid Laurier University Press
- Web Archives as Scholarly Sources: Issues, Practices and Perspectives conference
- Joint Conference on Digital Libraries
- SAGE Open Nursing
- Social Sciences and Humanities Research Council (x2)
- Programming Historian
- Post45
- Modern Languages Association
- Oxford Bibliographies
- Urban History Review

Professional Affiliations

- American Historical Association (AHA).
- Association for Computers and the Humanities (ACH).
- Association for Computing Machinery (ACM).
- Association for Literary and Linguistic Computing (ALLC).
- Canadian Historical Association (CHA).
- Canadian Society for Digital Humanities (CSDH).

Service to the Faculty of Arts and the University

- Faculty Representative, University of Waterloo Board of Governors. 2020 – 2021.
- Member, Faculty of Arts Tenure and Promotion Committee (FTPC). 2018 – 2021.
- Member, University Honorary Degrees Committee. 2019.
- Faculty-at-Large Senator, University of Waterloo Senate. 2018 – 2021.
- Member, Library Search Committee for Associate University Librarian, Learning, Research and User Services. 2018.
- Member, Library Search Committee for Associate University Librarian, Collections, Technology and Scholarly Communication. 2018.
- Member, Library Search Committee for CLIR Postdoc. 2018.
- Member, Library Search Committee for Digital Archivist. 2015.
- Member, Arts Homecoming Committee. 2014.
- Member, Library Search Committee for Digital Initiatives Librarian. 2014.
- Member, Library Search Committee for Head, Special Collections and Archives. 2013.

Service to the Department of History

- Annual Performance Review Committee (elected position). 2019 – Present.
- Graduate Committee. 2013 - 2014; 2018 – Present.
- Self-Study Committee. 2017 – 2018.
- Department Advisory Committee on Appointments (DACA). 2018.
- Speaker Series Coordinator. 2014 - 2016; 2018 – Present.
- Teaching Assistant Committee. 2014 – 2015.
- Public History Committee. 2013 – 2014.
- Specializations Committee. 2013 – 2014.
- Recording Secretary. 2013 – 2015.