Christopher (Cal) Lee

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Education: PhD in Information, University of Michigan School of Information - 2005

Master of Science in Information with a concentration in Archives and Records Management, University of Michigan School of Information - 1999

Bachelor of Arts in Philosophy (Summa Cum Laude with Honors) with a concentration in Public Service, Albion College - 1995

Professional Experience:

Professor, University of North Carolina, School of Information and Library Science – 2016-Present

Associate Professor, University of North Carolina, School of Information and Library Science – 2011-2016

Assistant Professor, University of North Carolina, School of Information and Library Science - 2005-2011

Research Assistant, CAMiLEON (Creative Archiving at Michigan and Leeds, Emulating the Old on the New) with Dr. Margaret Hedstrom, University of Michigan School of Information (Funded by National Science Foundation) - 2000-2004

Consultant, Electronic Records Research Agenda. National Historical Publications and Records Commission - 2002-2003

Research Assistant, Evaluating Information and Communications Technology: Perspectives for a Balanced Approach with Dr. Paul Edwards, University of Michigan School of Information (Funded by W.K. Kellogg Foundation) - 2001

Electronic Records Project Archivist, Kansas State Historical Society (Funded by the National Historical Publications and Records Commission) - 1999-2000

Research Assistant, Information Technology for Small Nonprofit Organizations with Dr. Michael Cohen, University of Michigan School of Information - 1998-1999

Research Assistant, Telecommunications Guide to the Internet (with Dr. Jeffrey MacKie-Mason), University of Michigan School of Information - 1997-1998

Honors and Awards:

Faculty Affiliate, UNC Center for Media Law and Policy – 2015-2016

Frances Carroll McColl Term Professor – 2013-2015

Poster Award, Aligning National Approaches to Digital Preservation (ANADP) II: An Action Assembly (with Jerry McDonough, Mark Matienzo, Porter Olsen, and Kam Woods) - 2013

Society of American Archivists Preservation Publication Award for *Aligning National Approaches to Digital Preservation* edited by Nancy McGovern and Katherine Skinner (I was a contributing author) - 2013

School of Information and Library Science 2011 Outstanding Teacher Award Nomination (University of North Carolina) -2011, 2012

Best Political Science Website or Software Award from the Information, Technology and Politics Section of the American Political Science Association for *ContextMiner* (product of VidArch project) - 2010

Second Place, Archiving 2008 Poster Competition (with Helen Tibbo and Carolyn Hank) - 2008

School of Information and Library Science 2007 Outstanding Teacher Award Nomination (University of North Carolina) - 2007

Paul Evan Peters Fellowship (Coalition for Networked Information) - 2002-2004

University of Michigan Rackham Graduate School Outstanding Graduate Student Instructor Award – 2004

School of Information Outstanding Graduate Student Instructor – 2004

Special Commendation from Digital Preservation Coalition Conservation Award Panel for "development of innovative technical strategies to combat technological obsolescence" (Awarded to CAMILEON Project Team) - 2004

Second Place, Association of Library and Information Science Educators (ALISE) Doctoral Student Poster Competition - 2004

One Term Dissertation Fellowship (Rackham School of Graduate Studies) – 2004/2005

Managing Electronic Records Conference Student Scholarship (Cohasset Associates) - 1998, 2001

President's Recognition Award (Albion College) - 1991-1995

Gerald Ford Institute for Public Service Leadership Award - 1992, 1993, 1994, 1995

Jack F. Padgett Award in Philosophy - 1995

Rhodes Scholarship State Finalist - 1994

Phi Beta Kappa - 1994

Susan J. Liioi Memorial Scholarship in Ethics - 1994

Books & Chapters:

Chassanoff, Alexandra, Kam Woods and Christopher A. Lee. "Digital Preservation Metadata for Disk Image Access." In *Digital Preservation Metadata for Practitioners: Implementing PREMIS*. Edited by Angela Dappert, Rebecca Squire Guenther, and Sébastien Peyrard, 99-109. Cham: Springer, 2017.

Christopher A. Lee, Jonathan Crabtree, Leo Konstantelos, Nancy McGovern, Yukio Maeda, Maureen Pennock, Helen Tibbo, Kam Woods, and Eld Zierau, eds. *Proceedings of the 12th International Conference on Digital Preservation*. Chapel Hill, NC: University of North Carolina, School of Information and Library Science, 2015.

Lee, Christopher A. "Digital Curation as Communication Mediation." In *Handbook of Technical Communication*, edited by Alexander Mehler, Laurent Romary, and Dafydd Gibbon, 507-530. Berlin: Mouton De Gruyter, 2012.

Ruusalepp, Raivo, Christopher A. Lee, Bram van der Werf, and Matthew Woolard. "Standards Alignment." In *Aligning National Approaches to Digital Preservation*, edited by Nancy Y. McGovern, 115-65. Atlanta, GA: Educopia Institute, 2012.

Lee, Christopher, ed. *I, Digital: Personal Collections in the Digital Era*. Chicago, IL: Society of American Archivists, 2011. [Editor of volume and contributor of three chapters]

Rajasekar, Arcot, Michael Wan, Reagan Moore, Wayne Schroeder, Sheau-Yen Chen, Lucas Gilbert, Chien-Yi Hou, Christopher A. Lee, Richard Marciano, Paul Tooby, Antoine de Torcy, and Bing Zhu. *iRODS Primer: integrated Rule-Oriented Data System*. San Rafael, CA: Morgan & Claypool, 2010.

Lee, Christopher A. "Open Archival Information System (OAIS) Reference Model." In *Encyclopedia of Library and Information Sciences*, Third Edition, edited by Marcia J. Bates and Mary Niles Maack, 4020-4030. Boca Raton, FL: CRC Press, 2009.

Tibbo, Helen R., Carolyn Hank, Christopher A. Lee, and Rachael Clemens, eds. *Proceedings of DigCCurr2009: Digital Curation: Practice, Promise, and Prospects*. Chapel Hill, NC: University of North Carolina, School of Information and Library Science, 2009.

MacKie-Mason, Jeffrey K. and Christopher Lee. *Telecommunications Guide to the Internet*. Rockville, MD: Government Institutes, 1998.

Refereed Journal Articles:

Lee, Christopher A., Suzie Allard, Nancy McGovern, and Alice Bishop. "Open Data Meets Digital Curation: An Investigation of Practices and Needs." *International Journal of Digital Curation* 11, no. 2 (2016): 115-125.

Lee, Christopher. "Flying on Instruments: A Response to Beth Yakel's Paper on Integrating Research and Teaching." *Preservation, Digital Technology & Culture* 43, no. 1-2 (2014): 47–50.

Lee, Christopher A. "Archival application of digital forensics methods for authenticity, description and access provision." *Comma* 2, no.14 (2012): 133-139.

Lee, Christopher A. and Helen Tibbo. "Where's the Archivist in Digital Curation? Exploring the Possibilities through a Matrix of Knowledge and Skills." *Archivaria* 72 (2011): 123-68.

Lee, Christopher A. "A Framework for Contextual Information in Digital Collections." *Journal of Documentation* 67, no.1 (2011): 95-143.

Hedstrom, Margaret, Christopher A. Lee, Judith S. Olson and Clifford A. Lampe. "The Old Version Flickers More': Digital Preservation from the User's Perspective." *American Archivist* 69 (2006): 159-187.

Refereed Conference Papers:

Christopher A. Lee, Suzie Allard, Alice Bishop, and Nancy McGovern. Open Data Meets Digital Curation: An Investigation of Practices and Needs. In *Proceedings of the 11th International Digital Curation Conference*, 2016.

Woods, Kam, Christopher Lee, Oleg Stobbe, Thomas Liebetraut and Klaus Rechert. "Functional Access to Forensic Disk Images in a Web Service." In *Proceedings of the 12th International Conference on Digital Curation*, edited by Christopher A. Lee, Jonathan Crabtree, Leo Konstantelos, Nancy McGovern, Yukio Maeda, Maureen Pennock, Helen Tibbo, Kam Woods, and Eld Zierau, 191-195. Chapel Hill, NC: University of North Carolina, School of Information and Library Science, 2015.

Lee, Christopher A. "Up Close and Personal: Individual Digital Traces as Cultural Heritage and Discovery through Forensics Tools." In *Proceedings of PATCH, February 24, 2014, Haifa, Israel.* New York, NY: Association for Computing Machinery, 2014.

Woods, Kam, Christopher Lee, and Sunitha Misra. "Automated Analysis and Visualization of Disk Images and File Systems for Preservation." In *Proceedings of Archiving 2013* (Springfield, VA: Society for Imaging Science and Technology, 2013), 239-244.

Lee, Christopher A., and Kam Woods. "Automated Redaction of Private and Personal Data in Collections: Toward Responsible Stewardship of Digital Heritage." In *Proceedings of Memory of the World in the Digital Age: Digitization and Preservation: An International Conference on Permanent Access to Digital Documentary Heritage, 26-28 September 2012, Vancouver, British Columbia*, Canada, edited by Luciana Duranti and Elizabeth Shaffer, 298-313: United Nations Educational, Scientific and Cultural Organization, 2013.

Lee, Christopher A. and Helen Tibbo. "Preparing for Digital Curation Governance: Educating Stewards of Public Information." In *Proceedings of the Sixth International Conference on Theory and Practice of Electronic Governance, Albany, New York, United States, 22-25 October 2012*, 171-174. Edited by J. Ramon Gil-Garcia, Natalie Helbig, and Adegboyega Ojo. New York, NY: Association for Computing Machinery, 2012.

Lee, Christopher A. and Helen Tibbo. "Digital Curation for Public Sector Professionals." In *Proceedings of the Sixth International Conference on Theory and Practice of Electronic Governance, Albany, New York, United States, 22-25 October 2012*, 528-530. Edited by J. Ramon Gil-Garcia, Natalie Helbig, and Adegboyega Ojo. New York, NY: Association for Computing Machinery, 2012. (Tutorial abstract)

Woods, Kam and Christopher A. Lee. "Acquisition and Processing of Disk Images to Further Archival Goals." In *Proceedings of Archiving 2012* (Springfield, VA: Society for Imaging Science and Technology, 2012), 147-152.

Tibbo, Helen R. and Christopher A. Lee. "Closing the Digital Curation Gap: A Grounded Framework for Providing Guidance and Education in Digital Curation." In *Proceedings of Archiving 2012* (Springfield, VA: Society for Imaging Science and Technology, 2012), 57-62.

Tibbo, Helen R., Lee, Christopher A. and Lorraine L. Richards. "Developing a dual degree program to support public sector information stewardship." In *Proceedings of the 2012 iConference*, 603. New York, NY: ACM, 2012. (Poster)

Woods, Kam, Christopher A. Lee, and Simson Garfinkel. "Extending Digital Repository Architectures to Support Disk Image Preservation and Access." In *Proceedings of the 11th Annual International ACM/IEEE Joint Conference on Digital Libraries*, 57-66. New York, NY: Association for Computing Machinery, 2011.

Woods, Kam, Christopher A. Lee, Simson Garfinkel, David Dittrich, Adam Russell, and Kris Kearton. "Creating Realistic Corpora for Forensic and Security Education." In *Proceedings of the ADFSL Conference on Digital Forensics, Security and Law*, 123-24. 2011.

Lee, Christopher A. "Move It or Lose It: Investigating Digital Curation Portability for Access to Government Information." In *Archiving 2010: Final Program and Proceedings, June 1-4*, 2010, *Den Haag, The Netherlands*, 7-12. Springfield, VA: Society for Imaging Science and Technology, 2010.

Tibbo, Helen R., and Christopher A. Lee. "Convergence through Capabilities: Digital Curation Education for Libraries, Archives and Museums." In *Archiving 2010: Final Program and Proceedings, June 1-4*, 2010, Den Haag, The Netherlands, 53-57. Springfield, VA: Society for Imaging Science and Technology, 2010.

Lee, Christopher A., Richard Marciano, Chien-yi Hou, and Chirag Shah. "Mainstreaming Preservation through Slicing and Dicing of Digital Repositories: Investigating Alternative Service and Resource Options for ContextMiner Using Data Grid Technology." In *Proceedings of the Sixth International Conference on Digital Preservation (iPRES), San Francisco, California, October 5-6, 2009*, 113-20: California Digital Library, 2009.

Marchionini, Gary, Chirag Shah, Christopher A. Lee, and Robert Capra. "Query Parameters for Harvesting Digital Video and Associated Contextual Information." In *Proceedings of the 9th ACM/IEEE-CS Joint Conference on Digital Libraries*, 77-86. New York, NY: ACM Press, 2009.

Lee, Christopher A., Richard Marciano, Chien-yi Hou, and Chirag Shah. "From Harvesting to Cultivating: Transformation of a Web Collecting System into a Robust Curation Environment." In *Proceedings of the 9th ACM/IEEE-CS Joint Conference on Digital Libraries*, 423-24. New York, NY: ACM Press, 2009.

Capra, Robert G., Clemens, Rachael, Lee, Christopher A., and Laura Sheble. "Contextual Information from Blogs in Video Digital Curation." In *Digital Curation, Practice, Promise, & Prospects, Proceedings of DigCCurr 2009, April 1-3, 2009*, edited by Helen R. Tibbo, Carolyn Hank, Christopher A. Lee, and Rachael Clemens, 196-198. Chapel Hill, NC: University of North Carolina at Chapel Hill, 2009.

Lee, Christopher A. "Curation Junction, What's your Function? Defining What it Means to Do Digital Curation in Order to Teach It." In *Proceedings of the 2009 Annual Conference of the Association for Library and Information Science Education (ALISE)*.

Sierman, Barbara, Raymond Van Diessen, and Christopher A. Lee. "Component Business Model for Digital Repositories." In *Proceedings of the Fifth International Conference on Digital Preservation (iPres)*, London, England, September 29-30, 2008.

Lee, Christopher A., Robert Capra, Rachael Clemens, and Laura Sheble. "I Know It's Important, But What Am I Looking At? Strategies for using Blog Content to Contextualize YouTube Videos" *Proceedings of the Second Annual Society of American Archivists Research Forum.* Chicago, IL: Society of American Archivists, 2008.

Lee, Christopher A., and Helen R. Tibbo. "Capturing the Moment: Strategies for Selection and Collection of Web-Based Resources to Document Important Social Phenomena." In *Archiving 2008: Final Program and Proceedings, June 24-27, 2008, Bern, Switzerland*, 300-305. Springfield, VA: Society for Imaging Science and Technology, 2008.

Tibbo, Helen R., Carolyn Hank, and Christopher A. Lee. "Challenges, Curricula, and Competencies: Researcher and Practitioner Perspectives for Informing the Development of a Digital Curation Curriculum." In *Archiving 2008: Final Program and Proceedings, June 24-27, 2008, Bern, Switzerland*, 234-238. Springfield, VA: Society for Imaging Science and Technology, 2008.

Capra, Robert, Christopher A. Lee, Gary Marchionini, Terrell Russell, Chirag Shah, and Fred Stutzman. "Selection and Context Scoping for Digital Video Collections: An Investigation of YouTube and Blogs." In *JCDL 2008: Proceedings of the 8th ACM/IEEE Joint Conference on Digital Libraries: Pittsburgh, Pennsylvania, June 15-20, 2008*, edited by Ronald L. Larsen, Andreas Paepcke, José Luis Borbinha and Mor Naaman, 211-20. New York, NY: ACM Press, 2008.

Lee, Christopher A., Helen R. Tibbo, and John C. Schaefer. "Defining What Digital Curators Do and What They Need to Know: The DigCCurr Project." In *Proceedings of the 2007 Conference on Digital Libraries*, 49-50. New York, NY: ACM Press, 2007.

Lee, Christopher A., Helen R. Tibbo, and John C. Schaefer. "DigCCurr: Building an International Digital Curation Curriculum & the Carolina Digital Curation Fellowship Program." In *Archiving* 2007: *Final Program and Proceedings, May 21-24, 2007, Arlington, VA*, edited by Scott A. Stovall, 105-109. Springfield, VA: Society for Imaging Science and Technology, 2007.

Tibbo, Helen R., Christopher A. Lee, Gary Marchionini, and Dawne Howard. "VidArch: Preserving Meaning of Digital Video over Time through Creating and Capture of Contextual Documentation." In *Archiving 2006: Final Program and Proceedings, May 23-26, 2006, Ottawa, Canada*, edited by Stephen Chapman and Scott A. Stovall, 210-15. Springfield, VA: Society for Imaging Science and Technology, 2006.

Lee, Christopher A., Helen R. Tibbo, Dawne Howard, Yaxiao Song, Terrell Russell, and Paul Jones. "Keeping the Context: An Investigation in Preserving Collections of Digital Video." In *Proceedings of the 6th ACM/IEEE-CS Joint Conference on Digital Libraries*, 363. New York, NY: ACM Press, 2006. (Poster abstract)

Hedstrom, Margaret and Christopher A. Lee. "Significant properties of digital objects: definitions, applications, implications." *Proceedings of the DLM-Forum 2002, Barcelona, 6–8 May 2002*. Luxembourg: Office for Official Publications of the European Communities, 2002. 218-227.

Research Reports:

Allard, Suzie, Christopher Lee, Nancy Y. McGovern and Alice Bishop. *The Open Data Imperative: How the Cultural Heritage Community Can Address the Federal Mandate*. Washington, DC: Council on Library and Information Resources, 2016.

Lee, Christopher A., Porter Olsen, Alexandra Chassanoff, Kam Woods, Matthew Kirschenbaum, and Sunitha Misra. "From Code to Community: Building and Sustaining BitCurator through Community Engagement." September 30, 2014.

Lee, Christopher A., Kam Woods, Matthew Kirschenbaum, and Alexandra Chassanoff. "From Bitstreams to Heritage: Putting Digital Forensics into Practice in Collecting Institutions." September 30, 2013.

Poole, Alex H., Christopher A. Lee, Heather L. Barnes, and Angela P. Murillo. "Digital Curation Preparation: A Survey of Contributors to International Professional, Educational, and Research Venues." UNC SILS Technical Report 2013-01. April 15, 2013.

Marchionini, Gary, Christopher A. Lee, Heather Bowden, and Michael Lesk. "Curating for Quality: Ensuring Data Quality to Enable New Science." Final Report on an Invitational Workshop Sponsored by the National Science Foundation, September 10-11, 2012, Arlington VA.

Lee, Christopher A. "States of Sustainability: A Review of State Projects funded by the National Digital Information Infrastructure and Preservation Program (NDIIPP)." Report to the U.S. Library of Congress. March 2012.

Lee, Christopher A. and Kam Woods. "Digital Acquisition Learning Laboratory: A White Paper." November 2011.

Marchionini, Gary, Helen Tibbo, Christopher A. Lee, Paul Jones, Robert Capra, Gary Geisler, Terrell Russell, Laura Sheble, Sarah Jorda, Yaxiao Song, Dawne E. Howard, Rachael Clemens, and Brenn Hill. VidArch: Preserving Video Objects and Context Final Report. UNC SILS TR-2009-01. June 12, 2009

Lee, Christopher A. "Taking Context Seriously: A Framework for Contextual Information in Digital Collections." UNC SILS TR-2007-04. October 18, 2007.

Horton, Robert, Shawn Rounds, and Cal Lee. *Electronic Records Agenda Project Final Report*. National Historical Publications and Records Commission. June 2003.

Lee, Christopher A., Brian S. Williams and Paul N. Edwards. *Evaluating Information and Communications Technology: Perspectives for a Balanced Approach*. W. K. Kellogg Foundation. December 2001.

Lee, Cal. Establishing a Core Data Set for Homeless Services in Washtenaw County: Findings and Recommendations. Washtenaw County Continuum of Care Board. April 1999.

Conference Sessions, Panels, Workshops & Presentations:

"The Many Levels of Digital Representation: Implications for PERSIST and Beyond" (invited delegate and speaker). PERSIST Meeting. Abu Dhabi, UAE, March 14, 2016.

"BitCurator and BitCurator Access –Recent Products and Activities." Code4Lib (Code4Arc Workshop), Philadelphia, PA, March 7, 2016.

"BitCurator Access Demo." 11th International Digital Curation Conference (IDCC), Amsterdam, The Netherlands, February 22-25, 2016.

"Open Data Meets Digital Curation: An Investigation of Practices and Needs." 11th International Digital Curation Conference (IDCC), Amsterdam, The Netherlands, February 22-25, 2016.

"Bringing Bits to the User: BitCurator and BitCurator Access." Coalition for Networked Information (CNI) Fall Meeting, Washington, DC, December 14-15, 2015.

"Getting to the Good Bits - Enabling Access to Born-Digital Materials at Multiple Levels of Representation" (invited speaker). Emergent Research Series at the University Library, Ann Arbor, MI, October 26, 2015.

"BitCurator Environment: Why, What, How." Best Practices Exchange, Harrisburg, PA, October 19-21, 2015.

"The Bits Left Behind: Strategies for Digital Recordkeeping for Departing Employees." Mid-Atlantic

Regional Archives Conference, Roanoke, VA, October 9, 2015.

"Enabling Archival Functions with BitCurator and BitCurator Access" (Full-Day Workshop)." International Council on Archives (ICA) Annual Conference, Reykjavik, Iceland, September 27-29, 2015.

"Straight Outta Slack Space: Curating Potentially Sensitive Information in Digital Collections." Society of American Archivists (SAA) Annual Meeting, Cleveland, OH, August 16-22, 2015.

"Redacting and Providing Access to Data from Disk Images" (Half-Day Workshop). Digital Forensics Research Workshop (DFRWS), Philadelphia, PA, August 9-13, 2015.

"BitCurator and BitCurator Access." Capture Lab Conference, Palo Alto, CA, July 22-24, 2015.

"Who Controls the Bits: Enabling Access to Authentic Born-Digital Records while Protecting Sensitive Data." Archival Education and Research Institute (AERI), College Park, MD, July 13-17, 2015.

"Bitstream Confidential: Considerations and Approaches to Curating Potentially Sensitive Personal Data in Collections" (with Kam Woods). Personal Digital Archiving Conference, New York, NY, April 24-26, 2015.

"Using Open-Source Forensics Tools to Process Born-Digital Materials: Motivation, Methods and Demonstrations" (invited speaker). National and University Library, Zagreb, Croatia, March 31, 2015.

"The BitCurator Environment and BitCurator Access: A Short Introduction." Code4Lib (Code4Arc Workshop), Portland, OR, February 9, 2015.

"Digital Forensics in Libraries and Archives" (invited talk). Harvard University, Cambridge, MA, November 10, 2014.

"All Bits Considered: Caring for Collections when Bitstreams Matter" (invited speaker). Presentation sponsored by Archives and Records Association of New Zealand (ARANZ), Library and Information Association of New Zealand (LIANZA), and Institute of Information Technology Professionals (IITP). Wellington, New Zealand, October 13, 2014.

"Demonstrating a Digital Curation Workflow using the BitCurator Environment" (demo and lightning talk). 11th International Conference on Digital Preservation, Melbourne, Australia, October 6-10, 2014.

"Getting to Digital Preservation Tools that 'Just work" (panelist). 11th International Conference on Digital Preservation, Melbourne, Australia, October 6-10, 2014.

"More Product, More (Machine) Process: Archival Processing and Appraisal that Takes Bits Seriously." Workshop on Born Digital Appraisal, Ingest, and Processing. 11th International Conference on Digital Preservation, Melbourne, Australia, October 6-10, 2014.

"Acquiring and Processing Born-Digital Data Using the BitCurator Environment" (One-Day Workshop). 11th International Conference on Digital Preservation, Melbourne, Australia, October 6-10, 2014.

"Loving Your Bits: The Open-Source BitCurator Environment" (invited speaker, with Kam Woods). Massachusetts Institute of Technology Cambridge, MA, August 1, 2014.

"Advancing Digital Curation Goals with the BitCurator Environment: More Product, More Process" (invited speaker). U.S. Senate, Washington, DC, July 21, 2014.

"An Introduction to the BitCurator Environment." American Libraries Association Annual Meeting, Las Vegas NV, June 26 – July 1, 2014.

- "Advancing Digital Curation Goals with the BitCurator Environment" (invited speaker). University of Wisconsin, Madison, WI, July 1, 2014.
- "Advancing Digital Curation Goals with the BitCurator Environment" (invited speaker). Wayne State University, Detroit, MI, June 17, 2014.
- "Digital Curation and Digital Forensics at UNC SILS Recent Activities." Open Planets Foundation Annual General Meeting, Copenhagen, Denmark, May 8, 2014 [delivered remotely].
- The Role of Public Libraries in Enabling Open Government: A Stakeholder Workshop (Panelist). Alexandria, VA, May 7-8, 2014.
- "Tools for Taming Traces: The BitCurator Environment" (invited speaker). National Digital Stewardship Residency (NDSR) Symposium Bethesda, MD, April 8, 2014.
- "Up Close and Personal: Individual Digital Traces as Cultural Heritage and Discovery through Forensics Tools." Personalized Access to Cultural Heritage (PATCH) 2014, Haifa, Israel, February 22-28, 2014.
- "Applying Open-Source Forensics Tools to Curation Tasks Using the BitCurator Environment" (Workshop). Digital Curation Institute, Toronto, Canada, January 20, 2014.
- "Curation Forensicated: Caring for Born-Digital Materials at Multiple Levels of Representation" (invited speaker). Digital Curation Institute, Toronto, Canada, January 20, 2014.
- "Applying Digital Forensics Methods in Preservation Environments: Commonalities, Differences and Future Opportunities" (invited talk and poster). Aligning National Approaches to Digital Preservation (ANADP) II: An Action Assembly, Barcelona, Spain November 18-20, 2013.
- "Digging into Bits: Capturing, Managing and Preserving Digital Stories" (Half-Day Workshop). Society of Tennessee Archivists Annual Meeting, Clarksville, TN, October 16-19, 2013.
- "Managing and Transforming Digital Forensics Metadata for Digital Collections." 10th International Conference on Preservation of Digital Objects (iPRES), Lisbon, Portugal, September 2-6, 2013.
- "Demonstration of the BitCurator Environment" (demo and lightning talk). 10th International Conference on Preservation of Digital Objects (iPRES), Lisbon, Portugal, September 2-6, 2013.
- "Parametric Curation in Digital Archives: Concept and Potential Benefits." Society of American Archivists Research Forum, New Orleans, Louisiana, August 13, 2013.
- "Mapping Digital Forensics Metadata to Preservation Events Using BitCurator" (poster with Alexandra Chassanoff and Kam Woods). Society of American Archivists Research Forum, New Orleans, Louisiana, August 13, 2013.
- "Closing the Digital Curation Gap Getting Started Guides" (poster with Helen Tibbo). Society of American Archivists Research Forum, New Orleans, Louisiana, August 13, 2013.
- "Taking Bitstreams Seriously: Digital Forensics and the BitCurator Environment." Digital Preservation 2013, Alexandria, VA, July 23-25, 2013.
- "If it's a Marathon, Why Does it Feel Like a Sprint? Lessons and Strategies for an Academic Career." Archival Education and Research Institute (AERI), Austin, TX, June 17-21, 2013.
- "Respect des Fonds in Personal Digital Collections: Principles, Logistics and Ethics." Archival Education and Research Institute, Austin, TX, June 17-21, 2013.

- "Digital Curation and Digital Forensics at UNC SILS." Open Planets Foundation Annual General Meeting, Hannover, Germany, June 12, 2013.
- "Digital Forensics for the Rest of Us: Supporting Curation of Born-Digital Resources" (invited speaker). Humboldt-Universität zu Berlin, Institut für Bibliotheks und Informations-wissen-schaft, Berlin, Germany, June 10, 2013.
- "Curating all of the Bits: BitCurator and the Application of Forensics to Digital Collections." Preservation and Archiving Special Interest Group (PASIG), Washington, DC, May 22-24, 2013.
- "Digital Forensics for the Rest of Us: Supporting Curation of Born-Digital Resources" (invited speaker). Harvard Library, Cambridge, MA, May 6, 2013.
- "Enhancing your Workflow with Digital Forensics Tools: The BitCurator Environment" (with Kam Woods). Digital Discussions (Carolina Digital Library and Archives), Chapel Hill, NC, March 14, 2013.
- "It's Ethics All the Way Down: Ethical Implications of Digital Representations." Personal Digital Archiving, College Park, MD, February 21-22, 2013.
- "Digital Forensics Meets the Archivist (And They Seem to Like Each Other)" (invited keynote speaker). Society of Georgia Archivists Annual Meeting, St. Simons Island, Georgia, November 8, 2012.
- "Preparing for Digital Curation Governance: Educating Stewards of Public Information" (with Helen Tibbo). Sixth International Conference on Theory and Practice of Electronic Governance (ICEGOV), Albany, NY, October 22-25, 2012.
- "Automated Redaction of Private and Personal Data in Collections: Toward Responsible Stewardship of Digital Heritage." Memory of the World in the Digital Age, Vancouver, Canada, September 26-28, 2012.
- "Archival Application of Digital Forensics Methods for Authenticity, Description and Access Provision." International Council on Archives Congress, Brisbane, Australia, August 20-24, 2012.
- "Digital Forensics for the Rest of Us: Supporting Curation of Born-Digital Resources" (invited speaker). National Library of Australia, Canberra, Australia, August 17, 2012.
- "Bitstreams Beyond Borders: The Value of Digital Forensics to Archivists" (speaker and chair). Society of American Archivists (SAA) Annual Meeting, San Diego, CA, August 6-11, 2012.
- "Born-Digital 'Manuscript' Materials: Where the Action Is" (invited speaker). Manuscript Repositories Section of SAA, Society of American Archivists (SAA) Annual Meeting, San Diego, CA, August 6-11, 2012.
- "Developing Resources to Close the Digital Curation Gap" (poster). SAA Research Forum, San Diego, CA, August 7, 2012.
- "Bringing Digital Forensics to the Archival Enterprise: The BitCurator Project." Archival Education and Research Institute (AERI), Los Angeles, CA, July 8-13, 2012.
- Digital Curation Pre-Conference (Co-Organizer), Los Angeles, CA, July 8, 2012.
- "Acquisition and Processing of Disk Images to Further Archival Goals." Archiving 2012, Copenhagen, Denmark, June 12-15, 2012.
- "Evidence in the Image: What Bitstreams Can Tell Us" (invited speaker). Landsforeningen til bevaring af fotografier og film (LFF) [National Association for Preservation of Photographs and Film] Summer

Seminar, Gentofte, Denmark, June 11, 2012.

"I, Digital: Personal Collections as An Archival Endeavor." Personal Digital Archiving Conference, San Francisco, CA, February 23-24, 2012.

"Developing a Dual Degree Program to Support Public Sector Information Stewardship" (poster with Helen Tibbo and Lorraine Richards). iConference 2012, Toronto, ON, February 7-10, 2012.

"Educating Stewards of Public Information: A Series of Interdisciplinary Projects" (poster with Helen Tibbo and Lorraine Richards), Annual Meeting of the Association for Library and Information Science Education (ALISE), Dallas, TX, January 17-20, 2012.

"NDIIPP State Projects - Lessons, Observations and Recommendations" (invited speaker). Preserving State Government Digital Information, All Partners Meeting, St. Paul, MN, December 7, 2011.

"Introduction to the Workshop: Steps Toward International Alignment." Steps Toward International Alignment in Digital Preservation, Singapore, November 4, 2011.

"Evolution of Web Archiving in Classes at UNC." Best Practices Exchange, Lexington, KY, October 20-22, 2011.

"NDIIPP State Projects - Lessons, Observations and Recommendations." Best Practices Exchange, Lexington, KY, October 20-22, 2011.

"Realistic Disk Image Collection for Research and Education." Practical Tools for Digital Preservation: A Hackathon, York, UK, September 27-29, 2011.

"Disk Image Repository Considerations." Digital Forensics Research Workshop (DFRWS), New Orleans, LA, August 1-3, 2011.

"National Information Infrastructure and Preservation Program (NDIIPP) States Projects - Overview and Evaluation" (invited speaker). Make it Work: Improvisations on the Stewardship of Digital Information, Washington, DC, July 19-21, 2011.

"Hands-On Digital Forensics Education for Information Professionals (Including Archivists)." Archival Education and Research Institute (AERI), Boston, MA, July 10-15, 2011.

"A Digital Acquisition Learning Laboratory and Data Corpus: Use in Electronic Records Education." Archival Education and Research Institute (AERI) Pre-Conference Meeting on Digital Laboratories, Boston, MA, July 9-10, 2011.

"What do you really care about if you care about digital curation?" (invited speaker). International Curation Education (ICE) Forum, London, UK, June 29, 2011.

"Review of State Projects in the National Information Infrastructure and Preservation Program (NDIIPP) - Preliminary Reflections." Presentation to Library of Congress. Washington, DC, June 14, 2011.

"Flying on Instruments: Responses to Beth Yakel's Paper on Integrating Research and Teaching" (invited speaker). At the Nexus of Analog and Digital: A Symposium for Preservation Educators, Ann Arbor, MI, June 5-7, 2011.

"Contextual Information as a Point of Alignment in Digital Preservation" (invited speaker). Aligning National Approaches to Digital Preservation (ANADP), Tallinn, Estonia, May 23-25, 2011.

"Curation of Digital Information at Multiple Levels of Representation" (invited speaker). Data to Insight

Center Seminar, Bloomington, IN, April 13, 2011.

"Digital Forensics and Digital Curation: Technologies, Methods and Strategies [Forensication of Everything]" (invited speaker). Preservation and Archiving Special Interest Group (PASIG), London, UK, April 4-5, 2011.

"Forensicate Me: Archival Education with Forensic Sensibilities." Personal Digital Archiving, San Francisco, CA, February 24-25, 2011.

"Who is at Stake? Considering Who Should Have a Say in Personal Digital Archives." Curate Me: Stewardship of Personal Digital Archives, Chapel Hill, NC, January 7, 2011.

With Kam Woods. "Curation of a Disk Image Collection to Support Education" (Poster). 6th International Digital Curation Conference, London, UK, December 6-8, 2010.

Invited Speaker. The Role of Libraries in E-science: Translating Data into Practice, Chapel Hill, NC, October 15, 2010.

"Alternative Strategies for the Curation of Public Records: How Can States Learn from Each Other?" Best Practices Exchange: Libraries and Archives in the Digital Era, Phoenix, AZ, September 29 – October 1, 2010.

With Helen Tibbo. "Digital Curation Governance: The Concept and Implications for Professional Capabilities." Society of American Archivists Research Forum, Washington, DC, August 10, 2010.

"A Digital Acquisition Learning Laboratory for Digital Curation Professionals." Digital Forensics Research Workshop, Portland, OR, August 2-4, 2010.

Automation in Digital Preservation, Schloss Dagstuhl Seminar, Germany, July 18-23, 2010 (invited participant, presenter and group discussion leader).

"How to Win Collaborators and Influence Disciplines: Lessons for the Archival Profession" (invited plenary speaker). Archival Education and Research Institute, Ann Arbor, MI, June 20-25, 2010.

Chair, Digital Collections Session, Archiving 2010, Den Haag, The Netherlands, June 1-4, 2010.

"Toward a Digital Acquisition Learning Laboratory" (invited speaker). Computer Forensics and Cultural Heritage Meeting, College Park, MD, May 14-15, 2010.

Chair, Sessions on Media on the Web and Semantic Web, 19th International World Wide Web Conference - Raleigh, NC, April 26-30, 2010.

Open Government in the Digital Age Summit (invited speaker), Albany, NY, March 19, 2010.

"The Traces We Choose: Selection Strategies by, for and about Individuals" (invited speaker). Saving Our Present for the Future: Personal Archiving 2010, San Francisco, CA, February 16, 2010.

Co-Organizer, Session Chair and Panelist, Preparing Stewards of Public Information in a Digital World, Chapel Hill, NC, January 15, 2010.

"Value-Enabled Digital Curation: Toward Ethically Responsible Acquisition" (Poster). 5th International Digital Curation Conference, London, UK, December 2-4, 2009.

"Addressing the Messiness of Electronic Records Acquisition: Discussion of Methods and Proposed Professional Directions." Society of American Archivists Annual Meeting, Electronic Records Section.

Austin, TX, August 14, 2009.

"Bringing Values to the Bitstream: A Framework for Digitally-Aware Professional Ethics of Curation." Society of American Archivists (SAA) Research Forum, Austin, TX, August 11, 2009.

"Making it Personal: Stewardship of Digital Collections of Individuals" (invited speaker). 7th Annual Minnesota Digital Library Meeting, St. Joseph, MN, June 8, 2009.

"Contextual Information from Blogs in Video Digital Curation" (Poster). Robert G. Capra, Rachael Clemens, Christopher (Cal) Lee and Laura Sheble. DigCCurr 2009: Digital Curation Practice, Promise and Prospects, Chapel Hill, NC, April 1-3, 2009.

"Moving Web Archiving into the Classroom at UNC: Experiences & Lessons." DigCCurr 2009: Digital Curation Practice, Promise and Prospects, Chapel Hill, NC, April 1-3, 2009.

"Skills for Significant Properties: Debating Pragmatics and Philosophy in an Area of Digital Curation" (Panel). DigCCurr 2009: Digital Curation Practice, Promise and Prospects, Chapel Hill, NC, April 1-3, 2009.

"Business Models for Large-Scale Digitization Programs" (session presider). Moving from Projects to a Program: The Sustainability of Large-Scale Digitization of Manuscript Collections, Chapel Hill, NC, March 12, 2009.

Moderator of session on Digital Scholarship. Librarian's Association at UNC Chapel Hill (LAUNC-CH) Annual Meeting, Chapel Hill, NC, March 9, 2009.

"Pondering the Professionalities: Curating the Personal" (invited speaker). First Digital Lives Research Conference: Personal Digital Archives for the 21st Century, London, UK, February 8, 2009.

"Curation Junction, What's your Function? Defining What it Means to Do Digital Curation in Order to Teach It." Association for Library and Information Science Education (ALISE) Annual Meeting, Denver, CO, January 20-23, 2009

"ContextMiner: A toolkit for Creating, Managing and Monitoring Web Collection Campaigns" (Poster). 4th International Digital Curation Conference, Edinburgh, Scotland, December 1-3, 2008.

Session Chair. "Electronic Publishing Town Meeting." Society of American Archivists Annual Meeting, San Francisco, CA, August 30, 2008.

"I Know it's Important, But What Am I Looking at? Strategies for using Blog Content to Contextualize YouTube Videos." Society of American Archivists Research Forum, San Francisco, CA, August 26, 2008.

"What do Job Postings Indicate about Digital Curation Competencies?" Society of American Archivists Research Forum, San Francisco, CA, August 26, 2008.

"Preparing Future Digital Curators, Part I: A Summary Report on the Digital Curation Curriculum Project." LAUNC-CH Annual Research Forum, Chapel Hill, NC, May 21, 2008.

"Beyond Fast Pictures: Exploring the Potential of Interactive Digitized Collections" (invited speaker and discussion facilitator). Southern Sources: Focusing the Conversation, Chapel Hill, NC, April 10-12, 2008.

"Preserving Attachments from an Email Collection: The Good, the Bad, the Ugly & the Thought-Provoking" (invited speaker). What to preserve? Significant Properties of Digital Objects, London, UK, April 7, 2008.

With Helen Tibbo and Carolyn Hank. "DigCCurr Progress Report: Development of a Graduate-Level Digital Curation Curriculum" (Poster). Association for Library and Information Science Education (ALISE)

Annual Conference, Philadelphia, PA, January 8-11, 2008

"International Digital Curation Curriculum: DigCCurr Project" (invited speaker). International Conference on Preservation of Digital Objects (iPres), Beijing, China, October 11-12, 2007.

With Helen Tibbo. "Building an International Digital Curation Curriculum." Society of American Archivists Annual Meeting, Chicago, IL, August 28 - September 2, 2007.

Chair and Commentator. "An Archival Voice in the Institutional Repository Choir: How Does it Sound Now and What Would We Like to Hear?" Society of American Archivists Annual Meeting, Chicago, IL, August 28 - September 2, 2007.

"Lessons from Individual Feedback." DigCCurr 2007: International Symposium on Digital Curation. Chapel Hill, NC, April 18-20, 2007.

Speaker and panelist. "This Conversation is Being Blogged: Our lives, online, all the time, in the trend towards lifelogging." Chapel Hill, NC, March 29, 2007.

"Digital Archiving and Securing Digital Information" (invited speaker). North Carolina Electronic Commerce Summit, Raleigh, NC, March 13, 2007.

With Paul Edwards. "Infrastructuration: Technology Studies and/as Social Theory." Society for Social Studies of Science (4S) Annual Meeting, Vancouver, Canada, November 1-5, 2006.

"Never Optimize: Building & Managing a Robust Cyberinfrastructure" (invited speaker). History and Theory of Infrastructure: Distilling Lessons for New Scientific Cyberinfrastructures, Ann Arbor, MI, September 28 - October 1, 2006.

"Enterprise Architecture and Archives: State Government Context." Joint Annual Meeting of National Association of Government Archives and Records Administrators (NAGARA), Council of State Historical Records Coordinators (COSHRC), and Society of American Archivists (SAA), Washington DC, July 31-August 6, 2006.

Co-Organizer and Presenter. "Recap & Review: It's a Checklist, Not a Do List." Workshop on Digital Curation & Trusted Repositories: Seeking Success, Joint Conference on Digital Libraries (JCDL), Chapel Hill, NC, June 11-15, 2006.

"Keeping the Context: An Investigation in Preserving Collections of Digital Video." Poster. Joint Conference on Digital Libraries (JCDL), Chapel Hill, NC, June 11-15, 2006.

"Categories of Digital Preservation Service from Institutional Repositories: Preliminary Thoughts" (invited speaker). Digital Preservation in State Government: Best Practices Exchange, Wilmington, NC, March 27-28, 2006.

"Research Design and Findings of the CAMiLEON Project." Society of American Archivists Annual Meeting, New Orleans, LA, August 14-21, 2005.

Session Chair. "Archival Issues in Digital Rights Management." Society of American Archivists Annual Meeting, Boston, MA, August 2-8, 2004.

Session Chair. "Practical Approaches to Electronic Records Management." Society of American Archivists Annual Meeting, Los Angeles, CA, August 18-24, 2003.

"Guerrilla Electronic Records Management: Lessons Learned" (invited keynote speaker). ARMA Mid-Michigan Chapter Meeting, Lansing, MI, January 16, 2003.

With Bob Horton. "Revisiting the Electronic Records Research Agenda." Society of American Archivists Annual Meeting, Birmingham, AL, August 19-25, 2002.

With Bob Horton. "Revisiting the NHPRC Electronic Records Research Agenda." Joint Annual Meeting of Council of State Historical Records Coordinators (COSHRC) and National Association of Government Archives and Records Administrators (NAGARA), Denver, CO, July 12-13, 2002.

With David Wallace. "Electronic Records and Government Accountability: Present Practice and Future

Prospects." Computer Professionals for Social Responsibility Annual Conference, Ann Arbor, MI, October 20, 2001.

"Emulation, Migration and Long-Term Preservation of Electronic Records" (invited speaker). ECURE 2001: Preservation and Access for Electronic College and University Records, Tempe, AZ, October 12-13, 2001.

"Beyond the Byte Stream: What to Preserve." Society of American Archivists Annual Meeting. Washington, DC, August 31, 2001.

"To Emulate or Not to Emulate: That's Not the Question." Midwest Archives Conference Annual Spring Meeting, Chicago, IL, May 4, 2001.

"Looking Outside the Box: Non-Traditional Opportunities for Electronic Records Education" (invited plenary speaker). Society of Ohio Archivists Spring Meeting, Columbus, OH, April 6, 2001.

"Computer-Assisted Appraisal of Electronic Records." Joint meeting of Midwest Archives Conference and Mid-Atlantic Region Archives Conference, Cleveland, OH, October 19, 2000.

"Recordkeeping and the Kansas Statewide Technical Architecture." *Society of American Archivists Annual Meeting, Denver, CO,* August 31, 2000.

Moderator and Speaker. "Trustworthy Information." Midwest Archives Conference Fall Meeting, Lincoln, NE, October 16, 1999.

Edited Journal Issues:

With Helen Tibbo, co-editor of *Journal of Digital Information*. Special Issue on Digital Curation & Trusted Repositories: Seeking Success. Volume 8, Number 2. 2007.

Other Unrefereed Works:

Misra, Sunitha Christopher A. Lee, and Kam Woods. "A Web Service for File-Level Access to Disk Images." *Code4Lib Journal* 25 (2014).

Lee, Christopher A. "Digital Forensics Meets the Archivist (And They Seem to Like Each Other)." *Provenance* 30, no. 1 (2012): 3-7.

Poole, Alex, H. Christopher A. Lee, and Angela P. Murillo. "CurateGear: Enabling the Curation of Digital Collections." *D-Lib Magazine* 18, no. 11/12 (2012).

Poole, Alex H., Christopher A. Lee, and Angela P. Murillo "AERI 2012 Digital Curation Pre-Conference." *D-Lib Magazine* 18, no. 9/10 (2012).

Lee, Christopher A., Matthew Kirschenbaum, Alexandra Chassanoff, Porter Olsen, and Kam Woods. "BitCurator: Tools and Techniques for Digital Forensics in Collecting Institutions." *D-Lib Magazine* 18, no. 5/6 (2012).

Lee, Christopher A. "Steps Toward International Alignment in Digital Preservation: Report on an iPRES 2011 Workshop." *D-Lib Magazine* (March/April 2012).

Foscarini, Fiorella, Yunhyong Kim, Christopher A. Lee, Alexander Mehler, Gillian Oliver, and Seamus Ross. "On the Notion of Genre in Digital Preservation." In *Dagstuhl Seminar Proceedings 10291*, *Automation in Digital Preservation*, edited by Andreas Rauber, Jean-Pierre Chanod, Seamus Ross, and Milena Dobreva. 2010.

Lee, Christopher A. "Computer-Supported Elicitation of Curatorial Intent." In *Dagstuhl Seminar Proceedings 10291, Automation in Digital Preservation*, edited by Andreas Rauber, Jean-Pierre Chanod, Seamus Ross, and Milena Dobreva. 2010.

Grace, Stephen, Anderson, Sheila, and Christopher A. Lee "Skills for Significant Properties: Debating Pragmatics and Philosophy in an Area of Digital Curation." In *Digital Curation, Practice, Promise, & Prospects, Proceedings of DigCCurr* 2009, *April 1-3, 2009*, edited by Helen R. Tibbo, Carolyn Hank, Christopher A. Lee, and Rachael Clemens, 161-162. Chapel Hill, NC: University of North Carolina at

Chapel Hill, 2009. [Panel summary]

Lee, Christopher A. and Helen R. Tibbo. "Digital Curation and Trusted Repositories: Steps Toward Success." *Journal of Digital Information* 8, no. 2 (2007).

Lee, Christopher A., Helen R. Tibbo, Dawne Howard, Yaxiao Song, Terrell Russell, and Paul Jones. "Keeping the Context: An Investigation in Preserving Collections of Digital Video." *Bulletin of the IEEE Technical Committee on Digital Libraries* 3, no.2 (2007).

Lee, Christopher A. "Defining Digital Preservation Work: A Case Study of the Development of the Reference Model for an Open Archival Information System." Unpublished Dissertation, 2005.

Lee, Cal. "Bridging the Gap: Mechanisms for Legitimate Peripheral Participation." *MAC Newsletter* 30, no. 3 (2003).

Lee, Cal. "Open-Source Software: A Promising Piece of the Digital Preservation Puzzle. *ARMAWorks* 13, no. 10 (2002): 2-4.

Lee, Cal. "Guerilla Electronic Records Management: Lessons Learned." *Records and Information Management Report* 18, no. 5 (2002): 1-13.

Lee, Christopher A. "Trusting Records: Legal, Historical, and Diplomatic Perspectives." *American Archivist* 65, no. 1 (2002): 130-136.

Lee, Cal. "Guerilla ERM: Lessons Learned from Some Time in the Trenches." Ohio Archivist. Spring 2001.

Lee, Cal. "Open-Source Software: A Promising Piece of the Digital Preservation Puzzle." *MAC Newsletter* 29, no. 2 (2001): 26-28.

Teaching:

University of North Carolina, School of Information and Library Science – 2005-Present

- Acquiring Information from Digital Storage Media Spring 2011
- Carolina Digital Curation Fellows (CDCF) Introductory Seminar Fall 2007
- Digital Forensics for Curation of Digital Collections Fall 2013 [9 students], Fall 2014 [9 students], Fall 2015
- Electronic Records Management Spring 2006, Spring 2007, Spring 2011, Spring 2012, Spring 2013, Spring 2014 [14 students], Fall 2016 [17 students]
- Independent Studies (INLS 696) Fall 2006, Spring 2007, Spring 2010, Fall 2010, Spring 2011,
 Spring 2012 (x6), Fall 2012, Spring 2013, Spring 2014, Fall 2014, Spring 2015, Summer 2015
- Introduction to Archives and Records Management Fall 2005, Fall 2006, Spring 2008, Fall 2009, Fall 2010, Fall 2011, Fall 2012 [31 students]
- iRODS Rule Construction Spring 2009, Spring 2010
- Proposal Development Fall 2015
- Resource Selection and Evaluation Spring 2006, Fall 2006, Spring 2007, Fall 2007, Fall 2008, Fall 2011
- Understanding Information Technology for Managing Digital Collections Fall 2008, Spring 2010, Spring 2012, Spring 2013 [16 students], Summer 2014 [10 students], Spring 2015 [6 students], Summer 2015 [6 students], Spring 2016, Summer 2016, Spring 2017 [14 students]

Creator and Instructor, Digital Forensics for Archivists: Fundamentals and Advanced –2015-Present

- Developed and administer course for the Society of American Archivist's Digital Archives
 Specialist (DAS) curriculum for continuing education. Due to significant demand for the material
 based on success of the two-day version, we have broken the class into two parts: Fundamental and
 Advanced.
- Taught one-day Fundamentals:
 - o June 10, 2015 in Anchorage, AK
 - o April 6, 2016 in Baton Rouge, LA
- Taught two-day Advanced:
 - o June 11-12, 2015 in Anchorage, AK
 - o August 17-18, 2015 in Cleveland, OH (with Marty Gengenbach)
 - o October 12-13, 2015 in Seattle, WA

o April 7-8, 2016 in Baton Rouge, LA

Creator and Instructor, Digital Forensics for Archivists – 2012-2014

- Developed and administer course for the Society of American Archivist's Digital Archives Specialist (DAS) curriculum for continuing education
- Taught one-day version:
 - o June 29, 2012 in New York, NY
 - August 6, 2012 in San Diego, CA
 - o December 3, 2012 in Philadelphia, PA
 - o December 4, 2012 in South Hadley, MA (with Kam Woods)
 - o March 21, 2013 in Worcester, MA
 - o June 24-25, 2013 in Ann Arbor, MI (with Kam Woods)
 - o November 13, 2014 in Washington, DC
- Taught two-day version:
 - o June 24-25, 2013 in Ann Arbor, MI (with Kam Woods)
 - October 24-25, 2013 in Albuquerque, NM
 - o December 19-20, 2013 in Los Angeles, CA
 - o March 13-14, 2014 in Syracuse, NY (administered remotely, due to weather disruption)
 - o June 12-13, 2014 in Minneapolis, MN (with Kam Woods)
 - September 18-19, 2014 in Philadelphia, PA

Co-Organizer and Co-Instructor, DigCCurr II Professional Institute – 2009, 2010, 2011, 2012, 2013, 2014, 2015 (Chapel Hill and Copenhagen)

- Administered week-long continuing education institute in Chapel Hill, with follow-up two-day session six months later
- Developed and taught eight educational modules in 2009, ten modules in 2010, and twelve modules in 2011, twelve modules in 2012, twelve modules in 2013, thirteen modules in 2014, thirteen modules in 2015
- Administered a second instance of the Institute in 2012 for library professionals in Copenhagen, Denmark

Co-Creator and Co-Instructor, Management Considerations for Digital Forensics (with Nancy McGovern and Kari Smith) – 2015

 Developed and administered day-long workshop on the implication for management of adoption digital forensics tools and methods in collecting institutions, part of the Digital Preservation Management (DPM) Workshop series at the Massachusetts Institute of Technology, Cambridge, MA. December 17, 2015

Co-Creator and Co-Instructor, From the Toolbox: BitCurator (with Kam Woods) – 2015

 Developed and administered day-long workshop on how to install and run the BitCurator environment, as well as demonstrating tools developed by the BitCurator Access project, for members of the Open Preservation Foundation, Vienna, Austria, May 29, 2015

Co-Creator and Co-Instructor, Curating Personal Digital Archives using BitCurator and BitCurator Access Tools (with Kam Woods) - 2015

 Developed and administered half-day workshop, in association with the Personal Digital Archiving Conference in New York, NY on April 24-26, 2015

Co-Creator and Co-Instructor, Introduction to Data Curation (with Jon Crabtree) - 2014

 Developed and administered 1.5-day workshop, in association with the Charleston Conference in Charleston, SC on November 3-4, 2014

Instructor, State Electronic Records Initiative (SERI) Institute – 2013, 2014

- Developed and taught three modules for the week-long Introductory Electronic Records Institute on July 8-12, 2013 in Indianapolis, IN
- Developed and taught three modules for the week-long Advanced Electronic Records Institute on March 31 – April 1, 2014 in Richmond, VA
- Developed and taught three modules for the week-long Advanced Electronic Records Institute on October 19-24, 2014 in Salt Lake City, UT

Co-Creator and Co-Instructor, Adding Digital Forensics Tools to Your Workflow Using BitCurator (with Kam Woods) – 2013

• Developed and administered two-hour tutorial addressing how to run the BitCurator environment in a virtual machine and how to perform various tasks with the BitCurator tools

Creator and Instructor, Digital Forensics for Archivists – 2013

 Developed and administered one-day workshop for the archives and records management staff of the United Nations in New York.

Co-Organizer and Co-Instructor, Digital Curation for Public Sector Professionals (with Helen Tibbo) – 2012

- Developed tutorial targeted to public sector professionals
- Administered at Sixth International Conference on Theory and Practice of Electronic Governance (ICEGOV), Albany, NY, October 22-25, 2012

Co-Organizer and Co-Instructor, An Introduction to Digital Curation for Public Records Professionals (with Helen Tibbo) – 2011, 2013

- Developed one-day workshop focusing on curation of public records
- Administered as post-conference workshop at the National Association of Government Archives and Records Administrators (NAGARA) and Council of State Archivists (CoSA) Joint Annual Meeting in Nashville, TN on July 16, 2011
- Administered again at the 2013 Annual Meeting of the National Association of Government Archives and Records Administrators (NAGARA) in Indianapolis, IN on July 13, 2013

Instructor, Archives and Records Management Fundamentals Workshop, Al Akhawayn University, Ifrane, Morocco, June 20-24, 2011

 Developed and administered week-long workshop in archives and records management for staff of Al Akhawayn University

Instructor, Applying Digital Forensics Techniques to Materials Acquired on Physical Media – 2009-2012

- Developed course
- Taught as half-day workshop at Archiving 2009 Conference in Arlington, VA
- Taught as full-day workshop for staff of UNC Libraries
- Taught as full-day workshop at Archiving 2012 Conference in Copenhagen, Denmark

Graduate Student Instructor, Social Systems and Collections, University of Michigan School of Information (Course Required of all Masters Students) - 2002, 2003, 2004

Instructor, Society of American Archivists Basic Electronic Records Workshop – Kansas City, MO, April 23, 2003

Professor's Assistant, Albion College, Department of Political Science - 1993-1994

Flight Instructor, Freelance and L&W Flight Service - 1991-1996

Grants:

BitCurator NLP (Andrew W. Mellon Foundation), **PI** (with Co-PI Kam Woods) – 2016-2018 [\$750,000]

• Developing software for collecting institutions to extract, analyze, and produce reports on features of interest in text extracted from born-digital materials contained in collections. The software will use existing natural language processing software libraries to identify and report on those items likely to be relevant to ongoing preservation, information organization, and access activities. These may include entities (e.g. persons, places, and organizations), potential relationships among entities (for example, by describing those entities that appear together within documents or set of documents), and topic models to provide insight into how concepts are naturally clustered within the documents.

BitCurator Access (Andrew W. Mellon Foundation), **PI** (with Co-PI Kam Woods) – 2014-2016 [\$750,000]

 Ultimate goal is to enable new forms of research and discovery based on born-digital materials

- Pursuing three main approaches to providing access to data: setting up a server that holds
 the full disk images and then lets end users dynamically walk the directory tree and access
 the individual folders and files; exporting both the files from the disk and the metadata
 using forensics tools (in the form of DFXML) and loading the files and DFXML into a
 more traditional collection access environment so that people can search and navigate the
 metadata; and access to disk image content through emulation
- Developing tools to redact files, file system metadata, and targeted bitstreams within disks or directories

BitCurator, Phase 2 (Andrew W. Mellon Foundation), **PI** (with Co-PI Matthew Kirschenbaum) – 2013-2014 [\$400,000]

BitCurator (Andrew W. Mellon Foundation), **PI** (with Co-PI Matthew Kirschenbaum) – 2011-2013 [\$600,000]

- Developed a system for collecting professionals that incorporates the functionality of opensource digital forensics tools
- Addressed two fundamental needs not usually addressed by the digital forensics industry: incorporation into the workflow of archives/library ingest and collection management environments provision of public access to the data
- Established sustainability of BitCurator environment through community engagement efforts and formation of the BitCurator Consortium

Curating for Quality: Curating for Quality: Ensuring Data Quality to Enable New Science (National Science Foundation), **Co-PI** (with PI Gary Marchionini) – 2012-2013 [\$49,954]

- Supported the NSF Workshop: Data Curation: Ensuring Quality and Access to Enable New Science, held in September 2012 in Arlington, VA
- Brought together leading researchers in data curation to establish a research agenda to guide development of these tools and techniques
- Published a workshop report, which summarizes workshop contributions and provides pointers for potential action

DataNet Federation Consortium (National Science Foundation), **Senior Personnel** (with PI Reagan Moore, Co-PI Arcot Rajasekar, Co-PI Jonathan Goodall, Co-PI William Regli, and Co-PI John Orcutt) - 2011-2016 [\$8,300,992]

- Developing a national data infrastructure that integrates collections across project-specific technology (such as real-time sensor data acquisition systems), institutional repositories, regional data grids, federal repositories, and international data grids
- Supporting federation of existing data management systems through use of the integrated Rule-Oriented Data System (iRODS)
- Evolution of the policies (computer actionable rules) and procedures (computer executable workflows) that govern each stage of the data life cycle
- Implementing domain-specific data management policies and procedures
- Demonstrating enforcement of data management policies that comply with NSF Data management and preservation requirements

Educating Stewards of the Public Information Infrastructure (Institute for Museum and Library Services), **Co-PI** (with PI Helen Tibbo) – 2011-2014 [\$846,449]

- Partnership between SILS and UNC School of Government (SOG)
- Network building within and across the digital curation, electronic records, public
 information, information science, and digital archiving communities at the local, state,
 national and international levels
- Supported dual degree students who helped us to further develop and test the courses and internships and conduct related research, as well as a doctoral student project manager
- Increased public awareness of digital curation, electronic records management, digital
 archiving, and digital public information management issues and challenges through two
 symposia and other outreach activities

Digital Acquisition Learning Laboratory (Andrew W. Mellon Foundation), **PI** – 2010-2011 [\$50,000]

Creation, administration and implementation of a learning laboratory for the application of

- digital forensics to the acquisition of digital materials
- Grant includes training, hardware and software that provides the capacity to run numerous practical exercises within courses at SILS
- Provided the seed for a sustainable program of digital forensics education at SILS
- Generated and disseminated a white paper to guide and advance similar efforts elsewhere

Curation of a Forensic Data Collection for Education (National Science Foundation, sub-grant through award DUE-0919593), **PI** – 2010-2011 [\$199,597]

- Administered as a sub-grant through a project entitled "Creating Realistic Forensic Corpora for Undergraduate Education and Research," which is led by Simson Garfinkel
- Developed and enhanced a collection of data that represents realistic scenarios (e.g. traces
 of computer use that span many years, multiple disk images that are relevant to the same
 matter, numerous end-user applications installed and used), while also being appropriate for
 students to use in support of digital forensics education
- Primary focus areas were annotation, scenarios, exercises, answer keys and other forms of data that can further enhance access and use of the disk images
- Investigated strategies for ensuring that the data sets will remain available and useful beyond the life of the project
- Funded a post-doctoral fellow, Kam Woods, whom I supervised

Preservation and Access Virtual Education Lab (PAVEL) (National Endowment for the Humanities), $\bf Advisory~Board-2010-2011$

Educating Stewards of Public Information in the 21st Century (Institute for Museum and Library Services), **Co-PI** (with PI Helen Tibbo) – 2009-2012 [\$820,425]

- Partnership between SILS and UNC School of Government (SOG)
- Network building within and across the digital curation, electronic records, public information, information science, and digital archiving communities at the local, state, national and international levels
- Developed a curriculum, coursework, and experiential components to prepare future stewards of public information that will build from the current dual degree programs between SILS and SOG
- Supported dual degree students who helped to develop and test the courses and internships and conduct related research, as well s a doctoral student project manager
- Increased public awareness of digital curation, electronic records management, digital
 archiving, and digital public information management issues and challenges through two
 symposia and other outreach activities

Closing the Digital Curation Gap: An International Collaboration to Integrate Best Practice, Research & Development, and Training in Digital Curation (Institute for Museum and Library Services and Joint Information Systems Committee), **Co-PI** (with PI Helen Tibbo) – 2009-2011 [\$249,623]

- Established and supported a network of digital curation practitioners, researchers, and educators through face-to-face meetings, web-based communication, and various other information and communication technology (ICT) tools
- Continuing development and enhancement of the Digital Curation Exchange
- Established a baseline of digital curation practice/knowledge, especially in small to medium-sized cultural heritage institutions in the US and UK, through surveys, interviews and case studies
- Conducted a series of focus groups at library, archives and museum conferences, in order to identify current digital curation activities, priorities, information seeking practices, and potential use of decision trees
- Investigated implications of library, archives and museum convergence for professional development activities
- Produced selected tools for the target communities such as guides to good practice, decision trees, and Digital Curation Manual chapters

DigCCurr II: Extending an International Digital Curation Curriculum to Doctoral Students and Practitioners (Institute for Museum and Library Services), **Co-PI** (with PI Helen Tibbo) – 2008-

2011 [\$870,606]

- Fostered a growing and evolving network of international experts, Ph.D. students, faculty, and networked, distributed courses in digital curation
- Developed the Digital Curation Exchange (an effort that I initiated and have overseen, but was primarily designed and administered by SILS doctoral student, Heather Bowden (Ryan))
- Developed a doctoral-level curricular framework, course content, and research focus in digital curation
- Supported doctoral-level Digital Curation Fellows who plan to become faculty focusing on digital curation
- Developed and implementing multi-stage Professional Institutes for practitioners in digital curation
- Created a series of symposia, publications, presentations, and information distribution vehicles to increase public and professional awareness of digital curation

Computer Forensics and Born-Digital Content in Cultural Heritage Collections (Andrew W. Mellon Foundation), **Advisory Board** – 2009-2010

Extending the Reach of Southern Sources: Proceeding to Large-Scale Digitization of Manuscript Collections (Andrew W. Mellon Foundation), **Advisory Board** – 2007-2009

Preserving Access to Our Digital Future: Building an International Digital Curation Curriculum & the Carolina Digital Curation Fellowship Program (Institute for Museum and Library Services), **Co-PI** (with PI Helen Tibbo) – 2006-2009 [\$562,041]

- Based on a set of guiding principles and collection and analysis of multiple data sources, developed an extensive Matrix of Digital Curation Knowledge and Competencies and explored its implications for the archival profession and convergence across libraries, archives and museums
- Organized and hosted two major international conferences: DigCCurr 2007 and DigCCurr 2009
- Conducted a two-phase survey-based study of DigCCurr 2007 participants, in order to elicit current digital curation challenges, necessary curriculum components and professional competencies
- Administered peer review for, edited and published Proceedings of DigCCurr2009: Digital Curation: Practice, Promise, and Prospects
- Worked with and supervised Digital Curation Fellows
- Engaged with institutional partners at UNC who supervised field work of Fellows
- Created new courses and course modules

Junior Faculty Development Award (University of North Carolina), PI – 2007 [\$7,500]

- Updated and extended findings of my earlier case study of the development of the Reference Model for an Open Archival Information System
- Publication of results as a contribution to the *Encyclopedia for Library and Information Sciences*

History and Theory of Infrastructure: Lessons for New Scientific Cyberinfrastructures (National Science Foundation), **Core Team Member** – 2006-2007

Electronic Records Research Fellows Program (National Historical Publications and Records Commission), **Executive Board** – 2006-2007

Preserving Video Objects and Context: A Demonstration Project (National Science Foundation and Library of Congress), **Investigator**, Phase 1 (with PI Gary Marchionini and Co-PI Helen Tibbo), **Co-PI**, Phase 2 (with PI Gary Marchionini, Co-PI Helen Tibbo and Co-PI Paul Jones) – 2005-2009 [\$867,957]

- Developed a framework for contextual information in digital collections
- Investigated the application of archival descriptive principles for managing and documenting the workflow surrounding the management of digital videos in a popular collection called Open Video
- Developed and analyzed technical strategies and selection criteria for collecting user-contributed online video and web materials that can provide associated contextual information
- Provided substantial guidance, oversight and investigation of user needs for the development of the *ContextMiner* (the principal developer was Chirag Shah, who was then a SILS doctoral student)
- Investigated multiple technical strategies for promoting the sustainability and future development

of ContextMiner

Professional Services and Leadership:

Society of American Archivists

- American Archivist Editorial Board (2008-2012, 2012-2016)
- Website Working Group (2008-2009)
- Publications Board (2002-2008)
- Electronic Records Section, Vice-Chair (2000-2001), Chair (2001-2002), Steering Committee (2002-2005)
- Electronic Publications Task Force (2001-2002)

President, BitCurator Consortium – 2015-2016

Executive Council, BitCurator Consortium – 2015-2017

Program Committee, Digital Forensics Research Workshop, 2016 – 2015-2016

Workshop Organizer, Code4Arc, Code4Lib Conference, Philadelphia, PA - 2016

General Co-Chair, 12th International Conference on Digital Preservation (iPRES), Chapel Hill – 2014-2015

Program Committee, 2016 iConference, Philadelphia, PA – 2015-2016

Delegate, Dodging the Memory Hole II: An Action Assembly, Charlotte, NC – 2015

Delegate, IMLS Focus: The National Digital Platform, Washington, DC – 2015

Expert Review Panel, European Commission - 2015

Project Advisory Group, ETDPlus – 2014-2016

Program Committee, 8th International Workshop on Personalized Access to Cultural Heritage (PATCH), Atlanta, GA – 2014-2015

Program Committee, 2015 iConference, Newport Beach, CA – 2014-2015

Program Committee, Personal Digital Archiving Conference, New York, NY - 2014-2015

Program Committee, Digital Forensics Research Workshop, 2015 – 2014-2015

Workshop Organizer, Code4Arc, Code4Lib Conference, Portland, OR - 2015

Expert Review Panel, European Commission - 2014

Program Co-Chair, 11th International Conference on Digital Preservation (iPRES), Melbourne – 2013-2014

Program Committee, Archiving 2014, Berlin, Germany – 2013-2014

Program Committee, Moving Beyond Technology: iSchools and Education in Data Curation, Valetta, Malta - 2013

Program Committee, Personal Digital Archiving Conference, Indianapolis, IN - 2013-2014

Program Committee, 2014 iConference, Berlin, Germany – 2013-2014

Advisory Committee, The Role of Public Libraries in Improving Local Open Government Ecosystems – 2013-2014

Program Committee, Conference on Digital Preservation and Trusted Repository Development, New Delhi, India – 2013-2014

Co-Chair, Eighth International Systematic Approaches to Digital Forensic Engineering (SADFE) Conference, Hong Kong - 2013

Expert Review Panel, European Commission - 2013

Program Committee, 10th International Conference on Preservation of Digital Objects (iPRES), Lisbon – 2013

Dryad Repository, Preservation Working Group - 2013

Workshop Organizer: Aligning Digital Preservation Across Nations, Eighth International Digital Curation Conference, Amsterdam, Netherlands, January 14, 2013

Poster Competition Judge, International Conference on the Preservation of Digital Objects (iPRES), Toronto, Canada, October 4, 2012

Co-Organizer, Curating for Quality: Ensuring Data Quality to Enable New Science, Arlington, VA - 2012

Program Committee, Personal Digital Archiving, College Park, MD – 2012-2013

Co-Organizer, Workshop: Open Research Challenges in Digital Preservation Workshop. Ninth International Conference on the Preservation of Digital Objects (iPRES), Toronto, Canada, October 1-5, 2012

Co-Organizer, Workshop: Pushing the Boundaries - Excellence in Digital Curation Education and Training Through Collaboration. Ninth International Conference on the Preservation of Digital Objects (iPRES), Toronto, Canada, October 1-5, 2012

Grant Review Panel, European Commission (ICT Call 9) – 2012

Program Committee, 9th International Conference on Preservation of Digital Objects (iPRES), Toronto – 2012

Workshops Co-Chair, 9th International Conference on Preservation of Digital Objects (iPRES), Toronto – 2012

Program Committee, Workshop on Emergency Informatics and Digital Libraries, ACM/IEEE-CS Joint Conference on Digital Libraries - 2012

Grant Reviewer for call by Netherlands Organisation for Scientific Research (NWO), Agence Nationale de la Recherce (ANR), Deutsche Forschungsgemeinschaft (DFG), and the Economic and Social Research Council (ESRC) - 2012

Co-Organizer, Government Bits: Stewardship of Public Information in a Changing Digital Landscape, Chapel Hill, NC - 2012

Program Committee, 2012 iConference, Toronto, Canada – 2011-2012

Co-Organizer, CurateGear: Enabling the Curation of Digital Collections, Chapel Hill, NC - 2012

Steps Toward International Alignment in Digital Preservation at 8th International Conference on Preservation of Digital Objects (iPRES 2011), Singpaore, November 4, 2011 (organized and administered) - 2011

Program Committee, 8th International Conference on Preservation of Digital Objects (iPRES), Singapore - 2011

National Digital Stewardship Alliance (NDSA), Infrastructure Working Group – 2010-Present

Technical Program Committee, Archiving 2011 Conference, Salt Lake City, Utah - 2011

Co-Organizer, The Curation of Social Media as a Public Asset, Chapel Hill, NC - 2011

Expert Panel to Review the National Archives and Records Administration (charged by National Research Council and U.S. Government Accountability Office) – 2010

Co-Organizer, DigCCurr Public Symposium: Engaging Communities for the Curation of Digital Products of Scholarly Endeavors – 2010

Co-Organizer, Symposium: Preparing Stewards of Public Information in a Digital World, Chapel Hill, NC - 2010

International Digital Curation Education and Action (IDEA) Working Group

- Steering Committee 2010-2012
- Lead, Graduate Curriculum Sub-Committee 2010-2012

Program Committee, 7th International Conference on Preservation of Digital Objects (iPRES), Vienna, Austria – 2010

Spanning the Boundaries of Digital Curation Education (proposed and co-organized) – international workshop held at iPRES 2010 in Vienna, September 22-23, 2010

Program Committee, Archival Education Research Institutes (AERI) – 2008-2010

Grant Review Panel, Institute for Museum and Library Services (IMLS) – 2009, 2010

Co-Organizer, "Stewardship of E-Manuscripts: Advancing a Shared Agenda," Chapel Hill, NC - 2009

Short Course Chair, IS&T Archiving Conference - 2009

Reviewer for Panel Submissions, Joint Conference on Digital Libraries (JCDL) - 2007

Kansas Electronic Records Committee, Co-Founder and Chair – 2000

Review of grant proposals to NHPRC - 1999-2002

Peer review of submissions for publication to:

- American Archivist
- Archival Science
- Archives and Manuscripts
- Decision Support Systems
- Encyclopedia of Library and Information Science
- International Journal on Digital Libraries
- Journal of Academic Librarianship
- Journal of the American Society for Information Science and Technology
- Journal of the Association for Information Systems
- Journal of Education in Library and Information Science
- Transactions on Information Systems

Academic Service:

Administrative Board, University of North Carolina Libraries – 2015-2018

Faculty Information Technology Advisory Panel, University of North Carolina – 2014-2017

Dean Review Committee, University of North Carolina - 2014

Faculty Council, University of North Carolina – 2008-2011, 2011-2014, 2016-2019

Faculty Council Agenda Committee, University of North Carolina - 2012-2013, 2013-2014

Fixed-Term Faculty Committee, University of North Carolina – 2010-2011, 2011-2012, 2012-2013

Carolina Digital Repository Steering Committee - 2008-2011

University of North Carolina Digital Curation / Institutional Repository Committee – 2005-2008

- Communities and Digital Assets Management Subcommittee (Chair) 2007-2008
- Infrastructure Planning Group 2006
- Repository Management Subcommittee (Chair) 2005-2006

University of North Carolina, School of Information and Library Science

- SILS Administrative Board 2014-2017
- Chair, Information Technology Services and Studies Task Force 2014-2016
- Chair, Lecturer Search Committee 2012-2013
- Faculty Search Committee 2010-2011, 2016-2017 (Chair)
- Salary Committee 2008-2011
- Personnel Committee 2007-2008, 2009-2010
- Masters Committee 2013-2014
- Masters and Curriculum Committee 2006-2007
- Research and Doctoral Committee 2005-2006, 2011-2012 (Chair), 2014-2015

Art & Museum Library & Information Student Society (AMLISS), Faculty Advisor – 2006-2010

Coordinator, Center for Research and Development of Digital Libraries (CRADLE) Lecture Series – Fall 2008

Specialized Training Received:

Computer Forensics with FRED by Digital Intelligence - September 13-14, 2010

Access Data: AccessData BootCamp – July 13-15, 2010; Windows Forensics XP – March 15-17, 2011; Windows Forensics Registry – March 22-24, 2011; Mac[intosh] Forensics – April 19-21, 2011

Guidance Software: EnCase Computer Forensics I – February 17-20, 2009