

Curriculum Vitae
Catherine L. Dumas

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Website: [UX & Immersive Technologies Lab](#)

EDUCATION

2019 **Ph.D. in Information Science**, University at Albany, NY

Knowledge Organization and Management (Primary Specialization)
 Information in Organizational Environments (Secondary Specialization)

Dissertation: “The Dynamics of E-petitioning Behavior in *We the People*:
 An Exploration of Online Mobilized Collective Action”

Dissertation Committee: Dr. Teresa Harrison (Co-chair), Dr. S.S. Ravi
 (Co-chair), Dr. Luis Luna-Reyes

2011 **MS in Information Science**, University of Albany

2008 **BA in English**, The College of Saint Rose, Albany, NY

CERTIFICATIONS

March 2025-Present **XR Bootcamp**

- C#, Unity.
- 3D modeling and design.
- User experience (UX) and user interface (UI) design for XR.
- Development for specific XR devices and platforms.

ACADEMIC EXPERIENCE

The College of Emergency Preparedness, Homeland Security and Cybersecurity, State University of New York at Albany

7/1/23-Present **Visiting Assistant Professor**, Information Sciences & Technology Dept.

7/1/23-Present: **Director**, UX & Immersive Technologies Lab

7/1/23-7/1/24 **Interim Director**, INF PhD Program

Fall 2023:

CINF 711 INF PhD Research Seminar I (21 students, Face-to-Face)

CINF 713 INF PhD Research Seminar III (11 students, Face-to-Face)

Spring 2024:

CINF 712 INF PhD Research Seminar II (21 students, Face-to-Face)

CINF 714 INF PhD Research Seminar IV (11 students, Face-to-Face)

CINF 391 Experiential Learning UX & Immersive Technologies Lab (1 student, Face-to-Face)

Summer 2024 (6wk2):

CINF 496/596: Usability & User Experience (UX) Research (18 students, Online)

Fall 2024:

CINF 391: Experiential Learning: UX & Immersive Technologies Lab creating serious games with Unity, Meta Quest 3, and GenAI and UX research. (7 students, Face-to-Face)

CINF 100X: Information in the 21st Century (172 students, Face-to-Face)

CINF 306: Information Security Assurance (30 students, Online)

Contributed to the Game Design & Development (GDD) Curriculum for new GDD undergraduate and Masters program (rolling out Fall 2025)

Winter 2025:

CINF 100X: Information in the 21st Century (20 students, 4wks Online)

Spring 2025:

CINF 100X: Information in the 21st Century (135 students, Face-to-Face)

CINF 307: Social Media & Society (47 students, New Course Development) (Online)

CINF 466: Experiential Learning (16 students) UX & Immersive Technologies Lab creating serious games with Unity, Meta Quest 3, and GenAI and UX research.

Courses Taught at Simmons**7/2018-7/2023 Assistant Professor**

School of Library & Information Science, College of Organizational, Computational, & Information Sciences, Simmons University

- Introduction to Programming (LIS 485) (Face-to-face & Online)
- Technology for Information Professionals (LIS 488) (Face-to-face & Online)
- Systems Analysis in Information Services/Systems Analysis & Design (LIS 486/CS 343) (Face-to-face & Online)
- Independent Study: Python for Text Mining (LIS 500)
- Data Interoperability (LIS 487/CS 214) (Face-to-face & Online)
- Information Visualization (LIS 473) (Online)
- Independent Study: Leveraging TMS for the Harvard Collection of Historical Scientific Instruments (LIS 500)

Additional Course and Curriculum Development at Simmons

- Re-Designed LIS 485 Introduction to Programming - Face to Face and Online versions

- Re-Designed LIS 486 Systems Analysis in Information Services/CS 343 Systems Analysis & Design - Face to Face and Online versions
- LIS 487 Data Interoperability - New course prep-Online
- Re-Designed LIS 473 Information Visualization - Online

Courses Taught at Other Institutions

8/2012-8/2018 **Instructor**, Informatics Department, College of Engineering & Applied Sciences, University at Albany, State University of New York

- INF 499 Senior Seminar: Topics in Informatics (Face-to-Face, Online & Blended)
- INF 307 Current Topics in Social Media (Face-to-Face & Blended)
- INF 108 Programming for Problem Solving (Online)
- CSI 105 Introduction to Computing and Information (Face-to-Face & Online)
- INF 201 Introduction to Web Development (Online)
- Contributed to the design of the Informatics Department's proposed Bachelor of Science Program

RESEARCH EXPERIENCE

5/2013-6/2019 **Data Analyst**, Project Petition, working with Dr. Teresa Harrison, Communication Department, Dr. S.S. Ravi and Dr. Feng Chen, Computer Science Department, Dr. Ozlem Uzuner, Information Studies, and several other graduate students, University at Albany, State University of New York

- Worked with large data sets of petition signatures and petitions from online petition websites
- Explored petition information diffusion using Twitter data
- Analyzed the data using different research techniques namely, data mining and social network analysis
- Managed database of e-petition data

1/2011-8/2011 **Research Assistant**, Human-Computer Interaction Lab, under the direction of Dr. Xiaojun Yuan, College of Computing and Information, University at Albany

- Recruited and scheduled 48 subjects to participate in a user study project "Investigating People's Search Behavior on Medical-Related Tasks."
- Ran all 48 experiments, collected the data through logging software and other instruments and observed the user's interaction during the search sessions.
- Conducted and transcribed 48 exit interviews for further analysis.

9/2010-8/2012 **Graduate Research Assistant**, Human-Computer Interaction Lab, for Dr. Xiaojun Yuan, College of Computing and Information, University at Albany

- Designed and conducted a Wizard-of-Oz study of spoken language recognition interface to investigate the efficacy and usability of spoken and gestural interaction with information systems.

- Designed numerous factual, interpretive, and exploratory tasks that were used in "Speak To Me" experiments to test information retrieval systems
- Conducted experiments with 25 pilots; Conducted exit interviews with 25 pilot subjects. Evaluated prototype interface/systems, employed heuristic evaluation, and cognitive walkthrough methods.
- Conducted research and wrote literature reviews on several areas of research within the field of Human-Computer Interaction.
- Conducted pilot studies for data collection in a project involving medical queries
Created tutorials for prototype interfaces for subjects in the experiment.

OTHER EMPLOYMENT

5/2013-8/2013 **Software Evaluator**, Internship, Kitware Inc., Clifton Park, NY

- Reviewed third party code to evaluate and test software
- Trained with MUMPS, Python, CMake, and Administration tools for Windows and Linux
- Researched tools for semantic web healthcare Electronic Health Records (EHR) and helped write a report to be used for funding proposal

2/2010-7/2010 **Special Projects Coordinator**, Internship, New York Library Association, Guilderland, NY

- Research assistant for executive director on several projects
- Collected and organized information in company's databases
- Provided content management on various company websites
- Created lists of contact data to be used in mailings
- Edited publications, programs, and other circulating materials
- Collaborated with staff in facilitating Lobby Day, 2010, Empire State Book Festival, and NYS Writers Hall of Fame Gala

PUBLICATIONS

Peer-Reviewed Journal Articles in Progress

Dumas, C., Williams, R. D., Ogden, L. & Porwol, L. (in preparation). Evaluating the Usability of Using Serious Virtual Reality Games and GenAI for Library Science Graduate Students to Communicate with Patrons in Crisis. (Target: *Education and Information Technologies*)

Dumas, C., Williams, R. D., Ogden, L. & Porwol, L. (in preparation). Evaluating the Usability of Using Virtual Reality for Library Science Graduate Students to Communicate with Patrons in Crisis. (Target: *The Journal of the Association for Information Science and Technology (JASIST)*).

Steinfeld, N., **Dumas, C.**, & Porwol, L (In preparation). Exploring Intergroup Dynamics in

Multi-User Virtual Reality Spaces using AI-driven Analytics. (Target: *Computers in Human Behaviors*).

Peer-Reviewed Journal Articles

Hu, Z., **Dumas, C.**, Jiang, J., & Kim, K.. (in review). Incorporating Social VR Technology in Graduate Students' Collaborative Work: A Comparative User Experience Study of "Horizon Workroom". *Library and Information Science Research*.

Williams, R.D., **Dumas, C.**, Ogden, Flanagan, J., & Porwol. (2024). Virtual Reality Training for Crisis Communication: Fostering Empathy, Confidence, and De-Escalation Skills in LIS Graduate Students. *Library and Information Science Research*.
<https://doi.org/10.1016/j.lisr.2024.101311>

Pollock, D., Williams, R., & **Dumas, C.** (2024). Lessons Learned: Musings on Teaching Technology in Library and Information Science. *Journal of Education for Library and Information Science*. 10.3138/jelis-2022-0049

Kostic, Z., **Dumas, C.**, Pratt, S., & Beyer, J.(2023). Exploring Natural Mid-air Interaction in Data Visualization. *IEEE TVCG Transactions on Visualization and Computer Graphics Journal*.
<https://doi.org/10.1109/TVCG.2023.3332647>.

Williams, R., **Dumas, C.**, Flanagan, J. (2023). Virtual Reality Training and Library Science Education: Examining the Possibilities. *Journal of Education for Library & Information Sciences*. 64(4), 10.3138/jelis-2022-0021.

Porwol, L., Garcia, A., **Dumas, C.**, (2023). Transforming e-participation: VR-dialogue–Building and Evaluating an AI-supported Framework for Next-gen VR-enabled e-participation Research. *Transforming Government: People, Process and Policy*. 17(2), 233-250. <https://doi.org/10.1108/TG-12-2021-0205>.

Harrison, T.M., **Dumas, C.**, Depaula, N., Fake, T., May, W., Atrey, A., Lee, J., Rishi, L., and Ravi, S.S. (2022). Exploring e-petitioning and Media: The Case of #BringBackOurGirls. *Government Information Quarterly*. <https://doi.org/10.1016/j.giq.2021.101569>

Dumas, C. (2021). Electronic Petitioning as Online Collective Action: Examining the E petitioning Behavior of an Extremist Group in We the People. *Information Polity*.
<https://doi.org/10.1145/3396956.3398258>

Dumas, C., LaManna, D., Harrison, T.M., Ravi, S.S., Kotfila, C., Gervais, N., Hagen, L., & Chen, F. (2015). Examining Political Mobilization of Online Communities Through e-petitioning Behavior in We the People. *Big Data & Society*, 2(2), <https://doi.org/10.1177/2053951715598170>

Budd, J. M. & **Dumas, C.** (2014). Epistemic Multiplicity in iSchools: Expanding Knowledge Through Interdisciplinarity. *Canadian Journal of Information and Library*

Science 38(4), 271-286. University of Toronto Press. <https://doi.org/10.1353/ils.2014.0020>

Peer-Reviewed Papers in Conference Proceedings

Williams, R.D., **Dumas, C.**, Ogden, L., Porwol, L., Flanagan, J., & Everett, A., (2023). Empathy, Confidence, and De-Escalation: Evaluating the Effectiveness of VR Training for Crisis Communication Skills Development Among LIS Graduate Students. *ALISE Annual Conference*, October 2-5, 2023. Milwaukee, WI. <https://doi.org/10.1016/j.lisr.2024.101311>

Steinfeld, N., **Dumas, C.**, Porwol, L., & Kostic, Z. (2023). Exploring Intergroup Dynamics in Multi-User Virtual Reality Spaces. *International Society of Political Psychology (ISPP)*. July 9-11, 2023. Montreal, Canada.

Dumas, C. (2022). Electronic Petitioning Activity as a Reaction to "Focusing Events" in the Public Sphere: Case Study of Police Brutality Petitions in We the People. *International Conference on Social Media and Society (#SMSociety)*. July 18-19, 2022 (Virtual).

Dumas, C. (2022). E-petitioning as Online Collective Action in We the People: The Case of the Legalization of Marijuana in the US. *International Conference on Digital Government Research*, Seoul, South Korea, June 15-17, 2022. (Virtual)

Dumas, C. (2020). Electronic Petitioning as Online Collective Action: Exploring the Systematic and Strategic e-petitioning Behavior of an Extremist Group in We the People. *International Conference on Digital Government Research*, Seoul, South Korea, June 17 - 20, 2020. pp 7–15 <https://doi.org/10.1145/3396956.3398258>

Harrison, T.M., **Dumas, C.**, Depaula, N., Fake, T., May, W., Atrey, A., Lee, J., Rishi, L., and Ravi, S.S. (2017). E-Petitioning and Online Media: The Case of #BringBackOurGirls. In *Proceedings of the 18th Annual International Conference on Digital Government Research* (pp. 11-20). ACM. <http://dx.doi.org/10.1145/3085228.3085320>

Dumas, C., LaManna, D., Harrison, T. M., Ravi, S.S., Hagen, L., Kotfila, C., and Chen F. (2015). E-petitioning as Collective Political Action in We the People. *iConference Proceedings*. <http://hdl.handle.net/2142/73665>

Harrison, T. M., **Dumas, C.**, Kotfila, C., LaManna, D., & Ravi, S. (2014). We the People: US e-petitioning as Technology-mediated Social Action. In *Annual Conference of the International Communication Association*, Seattle, WA.

Budd, J., & **Dumas, C.** (2014). Challenges to Creative Communication: Prolegomena to Narrative Reformation. In *Proceedings of the Annual Conference of CAIS*.

Book Chapters

Hagen, L., Harrison, T.M., and **Dumas, C.** (2018). Data Analytics for Policy Informatics: The Case of e-petitioning. In J. R. Gil-Garcia, T. A. Pardo, and L. F. Luna-Reyes (Eds.) *Policy Analytics, Modeling, and Informatics: Innovative Tools for Solving Complex Social Problems*.

Dumas, C., Harrison, T.M., and Zhao, X. (2017). What Do the People Think?: E petitioning and Policy Decision Making. In A. A. Paulin, L.G. Anthopoulos, and C. C. Reddick (Eds.) *Beyond Bureaucracy: Towards Sustainable Governance Informatization*.

Yuan, X. & **Dumas, C.** (2012). Cyber Behaviors in Seeking Information. In Z. Yan (Ed.), *Encyclopedia of Cyber Behavior* (pp. 365-382). Hershey: IGI Global.

Other Publications

Dumas, C., & Rorissa, A. (2014). ASIS&T: The Student Perspective. *Bulletin of the Association for Information Science and Technology*, 40(5), 23-27.

PRESENTATIONS (LECTURES, PANELS, WORKSHOPS, POSTER

SESSIONS) Refereed Conference Panel Presentations

Dinh, L., Hong, L., **Dumas, C.**, Patin, B., Ghosh, S., Li, L., & Khoury, C. (2024). Social Media and Crisis Informatics Research in LIS. *87th Annual Meeting Association for Information Science & Technology*. Calgary, Alberta, 25-29, October 2024.

Dumas, C., Williams, R. D., Chow, A., Hofman, & D., Macleod, J. (2024). Why VR? Exploring the Intersection of Virtual Reality and Information Science. *87th Annual Meeting Association for Information Science & Technology*. Calgary, Alberta, 25-29, October 2024.

Dumas, C., Ghosh, S., Hong, L., Karami, A., & Vaidya, P. (2023). Online Incivility and Contextual Factors Relating to Occurrences: Data-Driven Detection and Analysis. *86th Annual Meeting Association for Information Science & Technology*. Novotel London West, London, UK, 27-31 October 2023.

Porwol, L. & **Dumas, C.**, (2021). VR-Dialogue: The AI-powered e-Participation Research Expedition. *International Conference on Digital Government Research*. Omaha, Nebraska, June 9-11, 2021. Virtual Conference. <https://doi.org/10.1145/3463677.3463747>

Hagen, L., Greyson, D., Fox, A., Koltai, K., & **Dumas, C.** (2021). Social Media, Vaccines, and Partisan Division of Health Information. *84th Annual Meeting Association for Information Science & Technology*. Salt Lake City, Utah, October 30-November 2, 2021.

Pollock, D., Williams, R., **Dumas, C.**, Agarwal, N.K., & Erdelez, S. (2019). Teaching Technology in Library and Information Science: Preparing Students with Diverse Needs for the Challenges of an Interconnected World. *82nd Annual Meeting Association for Information Science & Technology*, Melbourne, Australia, October 19-23.

Alperin, J. P., **Dumas, C.**, Karami, A., Moscrop, D., Singh, V., Zamir, H., ... & Dorsch, I. (2018). Politicians & the Public: The Analysis of Political Communication in Social Media. *81st Annual Meeting Association for Information Science & Technology*, Vancouver, BC, November 10-14.

Dumas, C. (2016). Exploring E-petitioning Systems in the United States: 21st Century Citizen Action. Petitioning East and West: Historical Forms of Participation with Contemporary Application to Digital Government. Presented at the *17th International Digital Government Research Conference on Digital Government Research*. Shanghai, China, June 8-10,

Frankl, P., Stent, A., Gonsiorowski, E., and **Dumas, C.** (2016). Graduate School. ACM W New York Celebration of Women in Computing in Lake George, NY

Hagen, L., Kropczynski, J., **Dumas, C.**, Lee, J., Vasquez, F. E., & Rorissa, A. (2015). Emerging Trends in the Use and Adoption of E-participation Around the World. In *Proceedings of the Association for Information Science and Technology*, 52(1), 1-4.

Dumas, C., Gervais, N., Horowitz, L., Kassab, D. (2013). Team-Based Learning: An Instructional Strategy that Works! Conference on Instruction & Technology, SUNYIT, Utica, NY

Refereed Conference Poster Presentations

Sari D. Ardhi, D. Ma, C. & **Dumas, C.** (Submitted). Enhancing User experience: An Accessibility and Usability Study of an Open Government Data Portal. *26th Annual International Digital Government Research Conference on Digital Government Research*, 9-12 June, 2025, Porto Alegre City, Brazil.

Dumas, C., Williams, R., Ogden, L., Flanagan, J., Prowl, L., Tillinghast, J. (2023). Evaluating the Effectiveness of VR Training for Crisis Communication Skills Development Among LIS Graduate Students. *86th Annual Meeting Association for Information Science & Technology*, London, UK, October 27- 31, 2023.

Hu, Z., Jiang, J., & **Dumas, C.** (2023). Incorporating Social VR Technology in Graduate Students' Collaborative Work: A Comparative User Experience Study of "Horizon Workroom". *ASIS&T 2023 Mid-Year Conference*. Virtual, April 12-13, 2023.

Hu, Z., Jiang, J., & **Dumas, C.** (2023). Incorporating Social VR Technology in Graduate

Students' Collaborative Work: A Comparative User Experience Study of "Horizon Workroom". *NEASIS&T 2023*. Virtual, March 3, 2023.

Dumas, C., Williams, R., Flanagan, J., & Porwol, L. (2022). Implementing Virtual Reality Training for Librarians: Supporting Patrons in Crisis. *85th Annual Meeting Association for Information Science & Technology*, Pittsburgh, PA, October 29- November 1, 2022.

Mazel, A., & **Dumas, C.** (2019). Computational Analyses of the Relation of Theme and Genre in the Writing of Aphra Behn. *82nd Annual Meeting Association for Information Science & Technology*, Melbourne, Australia, October 19-23.

Dumas, C., Erdelez, S., Pomerantz, J., & Parthiban, V. (2019). Usability Testing of LUI: A New Human-computer Interface for Large Displays. *82nd Annual Meeting Association for Information Science & Technology*, Melbourne, Australia, October 19-23.

Dumas, C. (2019). Exploring E-petitioning and Twitter Behavior in 'We the People'. *International Conference on Social Media & Society (#SMSociety)*. Toronto, Canada, July 19-21, 2019.

Shao, Z., Harrison, T. M., May, W. C., Barbeisch, V. E., **Dumas, C.** (2018). Is E-petitioning A Real Opportunity for Politically Disadvantaged Groups? Voices for Women and Ethnic Minorities on 'We the People' Website. *68th Annual International Communication Association Conference: Voices*, Prague, Czech Republic.

Dumas, C. L., Atrey, A., Lee, J., Harrison, T. M., Fake, T., Zhao, X., & Ravi, S. S. (2016). E-petition Information Diffusion in Online Social Networks. In *Proceedings of the 17th International Digital Government Research Conference on Digital Government Research* (pp. 515-517). ACM

Dumas, C. L. (2015). E-petitioning: Exploring Citizen's Contributions to the Policy Making Process. In *Proceedings of the 16th Annual International Conference on Digital Government Research* (pp. 335-337). ACM. Best Poster Award.

Dumas, C., Vijayan, J., Kahn, M., & Kuhlman, C. (2012). Social Network Analysis: Examining Co-authorship and Acquaintanceship of a Multidisciplinary Department in a Research University. *#influence12: Symposium & Workshop: Measuring Influence on Social Media*, Dalhousie University, School of Information Management, Halifax, Nova Scotia, Canada

Yuan, X., Belkin, N., Jordan, C., & **Dumas, C.** (2011). Design of a Study to Evaluate the Effectiveness of a Spoken Language Interface to Information Systems. In *Proceedings of the Association for Information Science and Technology*, 48(1), 1-3.

Yuan, X, **Dumas, C.**, Belkin, N., & Jordan, C. (2011). Design of a Study to Evaluate the Effectiveness of a Spoken Language Interface to Information Systems. *Human Computer Interaction Workshop*, Google Campus, Mountain View, CA

Refereed Conference Workshop Presentations

Dinh, L., Hong, L., Ghosh, S., & **Dumas, C.** (Submitted). 5th Annual Workshop on Social Media Research, Challenges, and Opportunities. *88th Annual Meeting Association for Information Science & Technology*. Washington DC, 14-18, November, 2025.

Dumas, C., & Williams, R. (accepted). Navigating Tensions Using Serious Games: Integrating VR and GenAI for De-Escalating Patron Crises in Libraries. *Libraries and Information Institutions in the Digital Age (LIDA) 2025*. Dubrovnik, Croatia, May 19-21, 2025.

Hong, L., Ghosh, S., & **Dumas, C.** (2024). 4th Annual Workshop on Social Media Research, Challenges, and Opportunities. *87th Annual Meeting Association for Information Science & Technology*. Calgary, CA, 25-29 October 2024.

Ghosh, S., **Dumas, C.**, Karami, A., & Hong, L., (2023). 3rd Annual Workshop on Social Media Research, Challenges, and Opportunities. *86th Annual Meeting Association for Information Science & Technology*. Novotel London West, London, UK, 27-31 October 2023.

Dumas, C., Karami, A., Hagen, L., Ilhan, A., & Zimmerman, T. (2022) Workshop on Social Media Research, Challenges, and Opportunities, *85th Annual Meeting Association for Information Science & Technology*. Pittsburgh, PA, October 29-November 1, 2022.

Porwol, L., & **Dumas, C.**, (2021). From A desk to Lecture Hall: A Tutorial on Virtual e Gov and e-Part Event Delivery. *International Conference on Digital Government Research*. Omaha, Nebraska, June 9-11, 2021. Virtual Conference.

Karami, A., Hagen, L. **Dumas, C.**, Ilhan, A., Jarrahi, M.H., & Zimmerman, T. (2021) Workshop on Social Media Research, Challenges, and Opportunities, *84th Annual Meeting Association for Information Science & Technology*. Salt Lake City, Utah, October 30-November 2, 2021.

Crowston, K., Fleishman, K., Mostafa, J., Lin, X., Shah, C., Karami, A., Jarrahi, M.H., & **Dumas, C.** (2020). Best Practices for Grant Proposal Development: NSF, NIH, IMLS, IARPA, Amazon, and Google. *83rd Annual Meeting Association for Information Science & Technology*, Pittsburgh, PA, October 23-28, 2020.

Dumas, C., Ibanez, L., Kassab, D., and Weintraub, E. (2016). Git: An Essential Collaboration Tool in Software Engineering. ACM-W New York Celebration of Women in Computing in Lake

George, NY

Dumas, C., Kassab, D., Goodall, J. Ibanez, L. (2015). Open Source as Context to Cultivating Technical and Social Skills. Grace Hopper Celebration of Women in Computing, Houston, TX.

Non-refereed Workshops/Panels

Dumas, C., Williams, R., Pratt Martin, S., & Pomerantz, J. (October 20, 2021). XR Research at Simmons University. INFOcon 2021. (Panel)

Pollock, D., Williams, R., **Dumas, C.**, Rhinesmith, C., Tang, R. (2021). Innovation & Equity IS&T Faculty Panel, 10th Allen Smith Symposium, Simmons University, April 30, 2021.

Dumas, C., Bellanti, B., & Ren, M. (2019) GIT: The Version Control You Need to Know. Sharkhack Simmons. Simmons University. (Workshop)

Khan, M., Kuhlman, C., Ravi, S.S., **Dumas, C.**, (2015). Use of CINET in Education and Research. University at Albany, Albany, NY (Workshop)

Invited Talks

Dumas, C. How I Got into Game Dev. 1Upstate 2024. Albany Capital Center. (Panel with Honorarium) October 19, 2024

Dumas, C. & Williams, R. D. Explore VR and Biometrics in Action at BaUX Lab: University of South Carolina, Columbia, March 20, 2024.

Dumas, C. Guest Lecturer: XR Technology Research: Rebecca Davis 523P Simmons University, 4/4/22.

Porwol, L., & **Dumas, C.** VR Dialogue: The AI-powered e-Participation Research Expedition. Invited speakers. Rockefeller College, SUNY, Albany. (In-person) 11/16/22

Porwol, L., & **Dumas, C.** VR Dialogue: The AI-powered e-Participation Research Expedition. Simmons University (Via Zoom) 9/23/21

Dumas, C. Speaker: Talking about the IST Concentration - Kathy Wisser 8/20/2019 Archives Faculty Retreat

RESEARCH PROJECTS IN PROGRESS

AI XR Tutoring Platform. **Dumas, C.** , Jari, R., Nasierowski, M.

MindPalace XR: An Educational Game Using Spatial Computing, GenAI, and Gamified Challenges to Boost Memorization and Recall. *Principal Investigators:* **Dumas, C.**, Madrigal, G.

Evaluating the Efficacy and Usability of Teaching Library Science Graduate Students Crisis Communications Skills Using Immersive Virtual Reality Serious Games and GenAI. *Principal Investigators:* Williams, R., **Dumas, C.**, Ogden, L, Porwol, L. IRB approved.

VR Dialogue: Making sense of group interaction in VR in the context of next-generation eParticipation initiatives using AI-driven Analytics: *Principal Investigators:* Porwol, L., **Dumas, C.**, Kostic, Z. IRB approved.

Exploring Intergroup Dynamics in Multi-User Virtual Reality Spaces using AI-driven Analytics: *Principal Investigators:* Steinfeld, N., **Dumas, C.**, Porwol, L. IRB approved.

GRANTS AND CONTRACTS

In Preparation

MindPalace XR: An Educational Game Using Spatial Computing, GenAI, and Gamified Challenges to Boost Memorization and Recall. Solve. Co-PI's: **Catherine Dumas**, Gustavo Madrigal. (\$50,000). Submission deadline: April 17, 2025.

Submitted

MindPalace XR: MindPalace XR: Where Memory Meets Mixed Reality. 2025 Unity for Humanity Grant. Co-PI's: **Catherine Dumas**, Gustavo Madrigal. (\$50,000).

2024 Cybersecurity Incident REsponse STudio (CREST):Harnessing Artificial Intelligence and Critical Decision Simulation to Build Cybersecurity Incident Response Capability in New York State: Key personnel VR Component: **Catherine Dumas**

Awarded

2022 Implementing Virtual Reality Training for Librarians: Supporting Patrons in Crisis, COCIS Innovation Fund Co-PI's: **Catherine Dumas**, Rachel Williams, Lydia Ogden, Lukasz Porwol (**Awarded**, \$5000)

2021 AI and VR driven Next-Generation Online Communication NGI (Next Generation

Internet) Lukasz Porwol, **Catherine Dumas** (\$15,000)

2021 LeapVis: Enabling a Remote Data Visualization Gesture Interface Usability Study During COVID-19, Co-PI's: **Catherine Dumas**, Sarah Pratt, COCIS Innovation Fund (\$1784.73)

2021 Creating an infrastructure for innovative research and collaboration: Information Science & Technology Lab: Co-PI's: Naresh Agarwal, Rong Tang, Colin Rhinesmith, **Catherine Dumas**, Rachel Williams, Kyong Eun Oh, and Danielle Pollock, COCIS Innovation Fund - Awarded November, 2020 (\$5000)

2020 XR Remote Lecturing and Training Study, COCIS Innovation Fund, PI **Catherine Dumas** (\$5000)

2016 Funding to design and teach a blended (online/face-to-face) version of the Senior Seminar in Informatics course as part of a grant awarded to the Institute for Teaching, Learning and Academic Leadership at the University at Albany (\$1500)

2015 University Auxiliary Services program grant for ASIS&T Student Chapter Open Source Festival, \$500.00

2014 University Auxiliary Services program grant for ASIS&T Student Chapter Open Source Festival, \$250.00

2013 University Auxiliary Services program grant for ASIS&T Student Chapter Open Source Festival, \$250.00

2012 University Auxiliary Services program grant for ASIS&T Student Chapter Open Source Festival, \$250.00

2012 University Auxiliary Services program grant for ASIS&T Student Chapter Technical Workshop Series, \$300.00

2012 College of Computing & Informatics, State University of New York at Albany for ASIS&T Student Chapter Open Source Festival, \$1300

Not Funded

MindPalace XR: An Educational Game Using Spatial Computing, GenAI, and Gamified Challenges to Boost Memorization and Recall. Tools Competition. Co-PI's: **Catherine Dumas**, Gustavo Madrigal. (\$50,000).

2024 Empowering Library Science Graduate Students to Learn Crisis Communication Skills with Immersive VR Serious Games and GenAI, Spencer Foundation. Co-PI's: **Catherine Dumas**, Rachel Williams (\$474,333).

2024 Examining the Usability and Effectiveness of Virtual Reality Teaching and Learning in Library and Information Science Education, Spencer Foundation. Co-PI's: **Catherine Dumas**, Rachel Williams, Lydia Ogden, Lukasz Porwol (\$49,411).

2023 Examining the Usability and Effectiveness of Virtual Reality Teaching and Learning in Library and Information Science Education, Spencer Foundation. Co-PI's: **Catherine Dumas**, Rachel Williams, Lydia Ogden, Lukasz Porwol (\$327,650).

2023 Implementing Virtual Reality Training for Librarians: Supporting Patrons in Crisis, IMLS: Laura Bush 21st Century. Co-PI's: **Catherine Dumas**, Rachel Williams, Lydia Ogden, Lukasz Porwol (\$529,220).

2022 Virtual Reality Training for Emerging Library Professionals: Supporting Patrons in Crisis, SONY, Co-PI's: **Catherine Dumas**, Rachel Williams, Lydia Ogden, Lukasz Porwol (\$99,999)

2022 Increasing Trust in VR through personalized behavioral recommender system - BeCool, Meta Europe HQ. **Catherine Dumas**, Lukasz Porwol, Zona Kostic, Nili Steinfeld (\$75,000)

2021 Investigating Business applications for Social VR through personalized recommender system, SONY Research Award, Faculty Innovation Award. PI **Catherine Dumas**, Co-PI's: Lukasz Porwol, Zona Kostic, Nili Steinfeld (\$100,000)

2021 Increasing Trust in VR through personalized behavioral recommender system - BeCool, Facebook Research, 2021 Towards Trustworthy Products in AR, VR, and Smart Devices **Catherine Dumas**, Lukasz Porwol, Zona Kostic, Nili Steinfeld (\$75,000)

AWARDS AND HONORS RECEIVED

2024 **ALISE/Pratt Severn Faculty Innovation Award**. (\$1000)

2022 **ASIS&T Distinguished Member Award** Class of 2022, Association for Information Science & Technology.

2017 **Best Research Paper Award** for "E-Petitioning and Online Media: The Case of #BringBackOurGirls". 18th Annual International Conference on Digital Government Research, Staten Island, New York.

2015 **Best Poster Award** for "E-petitioning: Exploring Citizen's Contributions to the Policy Making Process". 16th Annual International Conference on Digital Government Research, Phoenix Arizona.

2012 Kathy Turek **Women and Technology, Initiatives for Women Award**, University at Albany, State University of New York (\$500).

2012-2013 **New Leaders Award**, Association for Information Science & Technology, Mentor: Dr. Rong Tang (\$1500).

2012 **Best Poster Award** for "Social Network Analysis: Examining Co-authorship and Acquaintanceship of a Multidisciplinary College in a Research University (CCI - SUNY Albany)" with Jayadevan Vijayan, Maleq Kahn & Chris Kuhlman. New Trends in Computing and Informatics Research, The University at Albany, State University of New York.

2011 **Excellence in Service** to the College and/or University Community Award College of Computing and Information, University at Albany, State University of New York.

UALBANY COMMITTEE MEMBERSHIPS/SERVICE

2024-Present **Committee Member** IST Dept. Research Accomplishment Tracking Committee

2023-Present **Chair** 523 Technology Requirement Committee

2023-2024 **Chair** INF PhD Literature Review Rubrics Committee

2023-2024 **Interim INF PhD Director**

2023-Present **Co-Faculty Advisor** Student Chapter Association of Information Science & Technology.

2023-Present **Director** UX & Immersive Technologies Lab

2023-Present **Committee Member** Game development & Design Curriculum Committee

SIMMONS COMMITTEE MEMBERSHIPS

COCIS (College of Organizational, Computational, and Information Sciences)

2021-2022 **Advisory Board** member COCIS Makerspace

2021 CS Contract Faculty Search Committee

2019-2020 **Chair**, COCIS Technology Committee

SLIS (School of Library & Information Science)

2022-2023 **Faculty Advisor**, Student Chapter Association of Information Science & Technology.

2021-2023 **Co-Director**, SLIS UX & Immersive Technologies Lab

2021-2022 **Interim Chair**, SLIS Panel on Adjunct Review and Recommendation (PARR)

2019-2023 **Committee Member**, SLIS IS&T Concentration Committee

2019-2021 **Sub-Committee Organizer**, Allen Smith Symposium, Innovation & Inclusion: Technology, Ethics and the Future of LIS

2019 Contract Faculty Search Committee

2018-2023 **Committee Member**, SLIS Panel on Adjunct Review and Recommendation (PARR)

2018-2023 **Faculty Advisor**, Student Chapter User Experience Professionals Association (UXPA)

PROFESSIONAL MEMBERSHIPS

Association for Information Science & Technology (ASIS&T)

Digital Government & Society (DGo)

Association for Library & Information Science Education (ALISE)

Anita Borg Women in Computing

IEEE

PROFESSIONAL SERVICE

2024-Present **Committee Member**, 2025 ASIS&T Outstanding Information Science Teacher Award Committee

2024 - Present **Member**, XR Women

2024-Present **Member**, Meta Horizon Creator Program

2020-Present **Organizer**, MIT Reality Hack. Cambridge, MA.

2022-2023 **Chair**, Association for Information Science & Technology (ASIS&T) SIG Social Media (SM)

2022 **Committee Member**, ASIS&T SIG Member Survey Task Force

2022 **Program Committee member** International Conference on Social Media & Society

2022-Present **Committee Member**, Digital Government Society Awards Committee

2022 **Program Committee member** - Track: Social Media & Government, Digital Government Society Conference 2022

2022 **Committee Member**, ASIS&T Awards Nomination Committee 2022

2022-Present **Track Chair** (Posters and System Demonstrations) Digital Government Society Conference

2021-2022 **Chair-Elect**, Association for Information Science & Technology (ASIS&T) SIG Social Media (SM) - 1 year term

2021-2023 **SIG Cabinet Committee Member**, Association for Information Science & Technology (ASIS&T) - 2 year term

2020 **Program Committee Member**, BIRDS 2020: Bridging the Gap Between Information Science, Information Retrieval, and Data Science. Xi'an, China, July 30th, 2020.

2020 **Organizing Committee Member**: ASIS&T 2020 SIG SI Workshop: The 16th Annual Social Informatics Research Symposium: "Sociotechnical Change Agents: ICTs, Sustainability, and Global Challenges". Association for Information Science & Technology Annual Meeting, Pittsburgh, PA, October 2020

2019 **Organizing Committee Member**: ASIS&T 2019 SIG SI Workshop: The 15th Annual Social Informatics Research Symposium: "Practical Social Informatics: Collaboration across Fields, Sectors, and Borders." Association for Information Science & Technology Annual Meeting, Melbourne, Australia October 19, 2019.

2018 **Organizing Committee Member**: ASIS&T 2018 SIG SI, IEP, SM Workshop: The 14th Annual Social Informatics Research Symposium: Sociotechnical Perspective on Ethics and Governance of Emerging Information Technologies. Association for Information Science & Technology Annual Meeting, Vancouver, Canada, November 10, 2018

2018-2021 **Communications Officer**, Special Interest Group: Social Media (SIG SM), Association for Information Science & Technology

2018-2021 **Social Chair**, Special Interest Group: Social Informatics (SIG SI), Association for Information Science & Technology

2017- 2018 **Track Chair**, Participatory Democracy, Digital Government & Society, International Conference on Digital Government Research

2017-2019 **SIG Cabinet Steering Committee Member**, Association for Information Science & Technology

2017-2022 **Registration Co-Chair**, Digital Government & Society, International Conference on Digital Government Research

2014-2021 **SIG Cabinet Representative**, Special Interest Group: International Information Issues (SIG III), Association for Information Science & Technology

2013-2018 **Communications Officer**, Special Interest Group: Social Informatics (SIG SI), Association for Information Science & Technology

2017 **Best Paper Award Judge**, Association for Information Science & Technology Special Interest Group Social Informatics (SIG SI), Annual Meeting

2016-2017 **Committee Member**, New Leaders Award Selection Committee, Association for Information Science & Technology

2012-2015 **Program Committee Member**, Social Media & Society International Conference

2010 **Organizer**, New York Library Association, 1st Empire State Book Festival & the NYS Writers Hall of Fame

OTHER SERVICE

2012-2018 **Co-Chair Advisor**, Association for Information Science & Technology, UAlbany Student Chapter

2010-2018 **Co-Founder, Organizer and Team Leader**, Open Source Festival, University at Albany, State University of New York

2014-2016 **Steering Committee Member**, President's Forum on Data, University at Albany, State University of New York

2013-2016 **Lead Organizer**, Rare Disease Hackathons, University at Albany, State University of New York

2012 **Grants Review Committee Member**, University of Albany, Graduate Student Organization

2012 **Chair Public Relations, Co-Chair Program Coordination, Co-Chair Submission Review Committee**, New Trends in Informatics Research Conference, State University of New York at Albany

2011-2012 **Chair**, Association for Information Science & Technology, UAlbany Student Chapter

2009-2010 **Chair of Publicity & Membership**, Association for Information Science & Technology, UAlbany Student Chapter

Journal and Conference Reviewing

- Association for Information Science & Technology
- Big Data & Society Journal
- Social Media & Society International Conference
- Digital Government & Society Conference
- Government Information Quarterly
- Transforming Government: People, Process and Policy
- iConference
- Journal of Education for Library & Information Science
- ACM CSCW Conference
- Editorial Board Member Frontiers Scholarly Communication Sept 2019 - Present
- Library Quarterly Review
- AI-Con

WORKSHOPS, SEMINAR, SYMPOSIA ATTENDED

- Unity Learn: Teach Unity (Online course) December - Present
- Pedagogy at the Podium: Social Justice In (or Lacking In) Library Education, Texas A & M, February 2022 <https://youtu.be/j8eIlyU7bHE?t=1>
- Ifill Forum: Truth, Resilience, and Democracy, November 6, 2021.
- CFE Faculty Excellence in Scholarship Series: Balancing Scholarship Expectations with a Heavy Course Load (10/28/2021)
- Wolves Summit 10/19- 10/21, 2021 <https://bit.ly/3yGypvY>
- Grace Hopper Celebration of Women in Computing Conference (Virtually). Sept 27-Oct 1, 2021.
- Grace Hopper Celebration of Women in Computing Conference - Mentor to CS students - Tabled for Simmons. Orlando, FLA, 10/1/19-10/5/19.
- Doctoral Symposium: Association for Information Science & Technology Annual

Meeting, Wash. DC, October 27-November 2, 2017

- Doctoral Symposium: 16th Annual International Conference on Digital Government Research, Phoenix Arizona, May 27-30, 2015

COMMUNITY SERVICE

2024- Present **Board Member**: BOCES Game Development Implementation Advisory Board

2024 -Present **Recruiter**: MIT Reality Hack

<https://www.albany.edu/cehc/news/2024-cehc-students-participate-mit-reality-hack-2024>

2022 **Organizer**, MIT Reality Hack. In -person MIT Campus, Cambridge, MA, March 23-27, 2022

2021 **Organizer**, MIT Reality Fest. Online. October 22-24, 2021

2020 **Mentor**, MIT Realty Hack: MIT XR Hackathon 2020, MIT, Cambridge MA, January 16-20. My role as mentor was to walk around to the different teams that were in a specific room to see if they needed help with any usability issues/questions with the applications they were building during the hackathon.

2016 **Co-Instructor**, Hour of Code, Montessori Magnet School, Albany, NY, Volunteer to guide 5th grade students through an Hour of Code event (20-25 students per class)

2015-2016 **Community Manager**, Open Source Initiative, responsible for engaging volunteers in open source projects

2011 **Presenter**, “Accessing College Information by Computer” Black Child Development Institute’s Entering the College Zone event, Presentation to at-risk Albany High School youth about how to use the internet to find information regarding higher education (financial aid, college, and university majors, etc.) Siena College, Loudonville, NY

2011 **Mentor**, Black Child Development Institute (BCDI), Albany High School, Albany, NY, Volunteer to assist at-risk Albany High School youth with social and academic development

RESEARCH INTERESTS

UX & usability of immersive extended reality (XR) technologies, using immersive technologies, gamification, and GenAI in teaching and learning in LIS education, serious games, AI-driven analysis of user behavior in social virtual reality (SVR) platforms, online collective action, analyzing e-petitioning behavior, information diffusion, social network analysis,

TECHNICAL SKILLS

- **Game Engines/Platforms/Tools**: Unity, Meta Quest

Presence/Building Blocks, Engage, Mozilla Hubs, Spoke, Blender, Figma

- **Web Development:** HTML, CSS, JavaScript
- **Databases:** MySQL, Access
- **Programming:** Python, R, C#
- **Version Control Systems:** Git
- **Statistical Tools:** R, SPSS
- **Network Analysis Tools:** R, Python, Gephi, UCINET, CINET, NodeXL
- **Online Learning Development Tools:** Camtasia, Blackboard, Moodle, Brightspace
- **Operating Systems:** Windows, Mac, Linux