Ryan L. Burns

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Professional Experience

American Association for the Advancement of Science – Washington, DC, USA
Science & Technology Policy Fellow: National Science Foundation (CISE/IIS), National AI Research Institutes, 8/2023-present

Designed and implemented federal artificial intelligence research policy and governance, with a particular focus on expanding, directing, and managing financial, human, and computational resources among the 25 NSF AI Institutes. Developed programs responsive to the complex needs of the AI Institutes and their multiple industry, government, and academic partners. Established, coordinated, and managed four funding programs to support knowledge exchange. Organized conferences and workshops, including the NSF "Hill Day" events in the Senate Office Building and the Summit for AI Leadership conference, connecting the AI Institutes with policymakers and congressional members. Wrote technical reports and policy briefs to contribute to new data, technology, and policy governance and security practices.

University of Calgary, Department of Geography – Calgary, Alberta, Canada
Associate Professor, 7/2022-present
Assistant Professor, 8/2016-7/2022

Led teams investigating the social, political, and policy impacts of artificial intelligence, machine learning, smart cities, open data, and digital humanitarianism. Taught courses on digital democracy, digital societies, technology policy, and urban geography. Published research on participatory, digital, and ethnographic research projects. Secured over $500,000 in grants as Principal Investigator, $1.25 million as collaborator. Conducted needs analysis with community associations, non-profit organizations, and charities to determine what sorts of digital, data, and AI infrastructure were needed, and from this founded and directed the YYC Data Collective, a platform for hosting, visualizing, analyzing, and disseminating data holdings among civil society groups. Helped draft the Alberta Non-profit Data Strategy as the co-chair of the Data Hubs Task Force. Conducted an open data transformation project in collaboration with the City of Calgary.

Temple University, Department of Geography and Urban Studies – Philadelphia, USA
Assistant Professor of Instruction, 8/2015-7/2016

Taught advanced GIS courses with proprietary and open-source technologies. Facilitated graduate student GIS research in collaboration with retirement communities and birdwatching communities. Developed new courses alongside the department's new Professional Masters in GIS program.

Technology Governance and Program Management Contributions

- Fellow, AAAS Science & Technology Policy Fellowship. Placed in the National Science Foundation's National AI Research Institutes.
- Member, United Nations University Global AI Network. 4/2024-present.
- Member, Generative Artificial Intelligence Working Group, National Institute of Standards and Technology (USA). 7/2023-present.
- Artificial Intelligence Policy Clinic Research Group, Center for AI and Digital Policy. 2024.
- Co-chair, Alberta Non-profit Data Strategy – Data Hubs Task Group (stewardship of PolicyWise, Edmonton, AB). 2019-2020.
- Organizer. "Working with Open Data" session. Cyber Summit. Kananaskis Country, AB. Co-organized by **personal invitation** by Cybera non-profit. 2019.

- Lead author. "Opening Up: Emerging Perspectives on Data Sharing". Policy white paper delivered to the City of Calgary, as part of an Urban Alliance funded project. 2019.
- Interviewee. "Guidance for Collaborating with Formal Humanitarian Organizations" by the UN Digital Humanitarian Network. 2013.
- Lead author. "Connecting Grassroots to Government for Disaster Management: Workshop Summary". Woodrow Wilson International Center for Scholars.

Relevant Grants and Awards

- Professional Achievement Award. Eastern Kentucky University International Alumni Ass'n. 2024.
- Early Career Award. International Geographical Union. 2024.
- "Digital Geographic Movements & Methods". $14,380. Social Sciences & Humanities Research Council, Connection Grant. 2022. For an **international conference** in Calgary, AB, 6/21-23, 2023.
- Fellow, Royal Canadian Geographic Society (nominated and elected).
- "Digitizing Carbon Capitalism". $97,265. Social Sciences and Humanities Research Council (SSHRC). PI. 2021. Multi-year study of **digital transformation in the oil & gas industry**.
- "Spatializing Digital Labor". $500 (USD). American Association of Geographers. PI. 2021. For developing **new visualization technologies** for topological-relational datasets.
- "Artificial Intelligence for Public Health". $525,000. Canadian Inst. of Health Rsearch 2019.
- "Graduate Student Association Excellence Award in Graduate Supervision". University of Calgary Faculty of Graduate Studies. 2019.
- "The Politics of Knowledge Representation in Open Data and Smart Cities". $53,655. SSHRC. PI. 2018. Multi-year grant supporting **user needs analysis** and the **development of new digital-spatial technologies** around open data and smart cities.
- "Exploring North American Municipal Data Sharing Agreements". $16,500. Collaboration with City of Calgary. 2018. Conducted a **user needs analysis** to advise the City of Calgary how and whether to open some of its datasets to the public.
- "Open Data for a Smarter City: Creating A Data Infrastructure". $27,600. Andrew W Mellon Foundation subgrant. 2017. Created a community **data sharing platform**.

Leadership Experience

- Vice-chair. Digital Geographies Specialty Group of the American Ass'n of Geographers. 2023-2025.
- Co-chair. Science, Technology, and Society Affinity Group; American Ass'n for the Advancement of Science (Science & Technology Policy Fellowship). 2023-2024.
- Founding member of Equity, Diversity & Inclusion Committee for Department of Geography, and elected member of EDI Committee for Faculty of Arts, University of Calgary. 2022-2023.
- Graduate Program Committee Member. Department of Geography, University of Calgary. 2022-2023.
- Program Advisory Board Member. Arts & Sciences Honours Academy, Univ. of Calgary. 2018-2020.
- Communications committee chair. Socialist & Critical Geography Specialty Group of the American Ass'n of Geographers. 2008-2012, 2018-2019.

Education

Ph.D., Geography, University of Washington, 9/2009-6/2015
Graduate Certificate in Public Scholarship, University of Washington, 2010-2015
M.Sc., Geographic Information Science, San Diego State University, 8/2006-8/2009
B.A., Geography, Magna Cum Laude, Honors, Eastern Kentucky University, 8/2001-5/2006