Joanna Merson

Department of Geography - InfoGraphics Lab University of Oregon | Eugene, OR 97403-1251 imerson@uoregon.edu

EDUCATION

Master of Arts, Geography

2013

Arizona State University, Tempe, Arizona

Bachelor of Science with distinction, Geomatics

2009

University of Victoria, Victoria, British Columbia, Canada (Combined major in Geography and Computer Science)

RESEARCH INTERESTS

Web cartography Cartographic animation design and assessment

Geographic information science Applications of GIS to environmental data modeling

Geovisualization

TEACHING EXPERIENCE

Instructor

University or Oregon Apr 2018 – Current

GEOG 490/590 - Web Mapping

Undergraduate courses, Arizona State University Au

Aug 2013 – Jun 2016

GIS 211/GPH 373 - Geographic Information Science I (*Online and In Person*) GIS 205/GPH 370 - Geographic Information Technologies (*Online and In Person*)

Teaching Assistant

Masters courses, Arizona State University

Aug 2011 - May 2012

Lab instructor for Masters of Advanced Study in GIS Program

(2 semesters of short, consecutive 2-credit courses)

GPH 601 - Introductory GIS Theory and Practice
GPH 602 - Intermediate GIS Theory and Practice
GPH 610 - Programming the GIS Environment
GPH 640 - GIS Project Presentation
GPH 630 - GIS Data Management
GPH 640 - GIS and Business

GPH 650 - GIS for the Internet GPH 603 - Spatial Modeling and Statistics GPH 604 - Real World GIS Project Acquisition, Planning & Management

GPH 605 - GIS Project Implementation in the Corporate and Public Sectors

Undergraduate courses, Arizona State University

Aug 2012 - May 2015

PUP 494 - Urban Design Studio

GPH 370 - Geographic Information Technologies GPH 373 - Geographic Information Sciences I

GPH 473 - Geographic Information Sciences II

Undergraduate courses, University of Victoria

Sep 2006 – Apr 2007

GEOG 308 - Introduction to GIS

GEOG 328 - GIS for the Natural Sciences

PROFESSIONAL EXPERIENCE

Research Assistant (Career NTTF) - Cartographic Developer, July 2017 - Current

InfoGraphics Lab, Department of Geography, University of Oregon

Graduate Research Assistant Aug 2010 - May 2011, Aug 2016 - May 2017

School of Geography and Urban Planning, Arizona State University

Tempe, Arizona

Supervisor: Dr. Elizabeth A. Wentz

Summer Employee "Internet Geographer"

May - Jul 2010, 2011, 2012

Latitude Geographics, Victoria, British Columbia

Developed product samples, documentation, demonstrations, and

instructional videos.

Research Fellowship Awardee Sep 2009 - Dec 2009

MicroGIS Foundation for Spatial Analysis, Lausanne, Switzerland Produced prototype interactive webatlas for census data display.

Product Release Engineer Intern May 2009 - Aug 2009

Esri, Redlands, California

Conducted testing of development products prior to their release.

Geomatics Technologist Sep 2007 - Apr 2008

GIS Technician Co-op Student May 2006 - Aug 2006

Royal Canadian Mounted Police E-Division, Informatics Branch.

Vancouver, B.C., Canada

Provided GIS and mapping support services to the operational and

administrative units.

GIS Co-op Student Jan 2006 - Apr 2006

BC Oil and Gas Commission, Victoria, B.C., Canada

Maintained and updated digital data sets and advised staff on limitations

and suitable uses of data and analyses.

Research Co-op Student May 2005 - Sep 2005

Office of the Fire Commissioner, Ministry of Public Safety and Solicitor General & The Union of BC Municipalities, Victoria, B.C., Canada Designed and maintained a geodatabase of interface fires, researched best practices, and presented findings in a subsequently published report.

PROFESSIONAL DEVELOPMENT

UO Online Presents: Best Practices for Video Production	Feb 2020
Advanced spatial analysis and data science capabilities in ArcGIS Pro Workshop	Oct 2019
Geospatial Data Visualization with d3 Workshop	Oct 2019
Workplace Harassment Training	Jun 2019
Edward Tufte Presenting Data and Information	May 2019
ArcGIS Online Workshop (UO Library)	May 2019

Diversity Action Plan Talks Lunch Session II "Tools for Building an Inclusive Environment"	Feb 2019	
Huffman Live streaming (Feb 2019)	Feb 2019	
NFSP Session 4: Successfully Navigating Challenges in the Classroom	Jan 2019	
Esri Workshop on ArcGIS Maps for Adobe Creative Cloud	Oct 2018	
Esri Massive Online Open Course: Cartography using ArcGIS Pro	Oct 2018	
CMET Canvas training	Sept 2018	
Digital Scholarship Services Omeka/Culturescape Training	Aug 2018	
UO Connected, UO Committed: Integrative Practices for Student Success	May 2018	
UO Workshop: Faculty Organizing for Success - Teaching Excellence	Jan 2018	
UO Libraries Gephi Workshop with Professor Ryan Cordell	Nov 2018	
UO Workshop: Leadership in Student Supervision	Oct 2017	
ASU Online Teacher Training	Sep 2015	
ASU Preparing Future Faculty Program	Aug 2013 - May 2014	
ASU's Graduate Women's Association Professional Presentation Strategies	Oct 2013	
Arizona Geographic Information Council Symposium	Sep 2013	
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SERVICE		
WORKSHOPS AND GUEST LECTURES		
UO GIS Day Open house – Event organizer (10+ presenters)	Oct 2019	
Esri Advanced GIS/R Workshop – Event organizer	Oct 2019	
UOregon SAIL Program - Cartography Workshop	Jul 2018, 2019	
University of Oregon Invited Guest Lectures ENVS 410/510: Environmental Data Management and Visualization – "Co ENG 410/510: Stories and Maps - "Storymapping" GEOG 4/593: Advance Cartography – "Typography" ENG 250: Literature and Digital Culture – "" GEOG 181: Our Digital Earth – "Digital Mapping" GEOG 608 - "Designing Academic Posters" ENVS 410/510: "Environmental Data Management and Visualization" ENG 250: Literature and Digital Culture – "Literature Mapping Exercise" GEOG 181: Our Digital Earth – "Getting Involved in GIScience"	olor use" Mar 2020 Feb 2020 Feb 2020 Nov 2019 Oct 2019 Jan 2018 Mar, Nov 2018 Jan 2018 Nov 2017	
UO Digital Scholarship Sampler Workshop – Mapping in Digital Humanities		
MapTime Eugene Workshop - Visualize point data using Google My Maps	Nov 2017	
Represented SDST major at Undergraduate Majors Fair	Sept 2017	
GIS Lab Demonstration Organizer and Volunteer ASU Night of the Open Door Brophy College Preparatory, Phoenix, Arizona Arizona State Level National Geography Bee	Mar 2012, Feb 2013 Mar 2012 Apr 2011	

Workshop Presenter Dec 2011

ASU GISER Integrative Society and Environment Research "Hidden gems of ArcGIS: Using ArcGIS Publisher and ArcScene"

Arizona State University Invited Guest Lecture

Apr 2011

ASU Dance 294 - Hybrid Action: Physical Intelligence in Digital Culture "Developing an interactive boid (cellular automaton) system"

COMMITTEES, PANELS, AND, OTHER SERVICE

Internship coordinatorFeb 2020 – CurrentIT committeeAug 2017 – CurrentDiversity committee memberMar 2018 – Feb 2020

MapTime Eugene - Organizing member

Aug 2017 - Current

Association of American Geographers GeoMentor
Registered as volunteer to work with educators and students learn to

Current

Registered as volunteer to work with educators and students learn to use GIS in the classroom

Journal Reviewer Jun 2014 – 2015

Spatial Cognition and Computation: An Interdisciplinary Journal Cartographic Perspectives

Panel Member Oct 2015

NACIS Annual Meeting

Cartography in the Classroom: A Changing Landscape

Undergraduate Student Honors Enrichment Project Supervisor Ido Gilboa, GIS 205; Phillip Pierce, GIS 205

ip Pierce, GIS 205 Oct 2015; Dec 2015

Hearing Board Member

Apr 2014 - May 2015

ASU University Hearing Board Appellate for alleged student violations of the Student Code of Conduct. Advise sanctions to the University Provost.

Graduate Student Representative, ASU University Graduate Council Advisory council to the Executive Provost for Academic Affairs and Vice Provost for Graduate Education

Aug 2014 - Apr 2015

Competition Judge

Apr 2011, 2014, 2015

Arizona State Level National Geography Bee

Brown Bag Organizer Aug 2013 – Dec 2013

ASU School of Geographical Sciences and Urban Planning

1148 2010 200 2010

Geography Graduate Student Representative ASU School of Geographical Sciences and Urban Planning Aug 2012 – May 2013

Colloquium Committee Student Member

Aug 2011 – May 2012

ASU School of Geographical Sciences and Urban Planning

May 2009

New Faculty Orientation Student Panelist University of Victoria. Victoria, British Columbia

2008 - 2009

Tour Guide and Panelist for Prospective Students University of Victoria. Victoria, British Columbia

PUBLICATIONS AND PRESENTATIONS

PEER-REVIEWED PUBLICATIONS

- Shimizu, M., Wentz, E.A, **Merson, J.**, Gold, A.J., and Kellogg, D.Q. (2018) Modeling anthropogenic nitrogen flow for the Niantic River catchment in coastal New England. *Landscape Ecology*. doi.org/10.1007/s10980-018-0667-3
- Shook, E., **Merson, J.**, Wentz, E.A., (In review) Network Flow Algebra for Modeling Non-Point Source Pollution: A Case Study Modeling Nitrogen in Niantic Watershed, Connecticut.
- Wagner, M., **Merson, J.,** Wentz, E.A., (2016) Design with Nature: Key lessons from McHarg's intrinsic suitability in the wake of Hurricane Sandy. *Landscape and Urban Planning.* 155: 33-46.

PEER-REVIEWED PUBLICATIONS - FIGURE CONTRIBUTIONS

- Schmidtke, H.R. (Forthcoming). The TextMap general purpose visualization system: algorithms. (Figure design)
- Middleton, A.D., H. Sawyer, J.A. Merkle, M.J. Kauffman, E.K. Cole, S.R. Dewey, J.A. Gude, D.D. Gustine, D.E. McWhirter, K.M. Proffitt, and P.J. White. (In press). Conserving transboundary wildlife migrations: emerging insights from the Greater Yellowstone Ecosystem. Frontiers in Ecology and the Environment. (Figure and data visualization design)
- Aikens E.O. et al (In review). Wave-like patterns of green-up shape ungulate movement in temperate ecosystems. *Science.* (Figure design)
- Geremia, C., J.A. Merkle, M. Hebblewhite, D.R. Eacker, and R.L. Wallen, M.J. Kauffman (2019). Yellowstone- Where Green Waves and Grazing Lawns Meet. *Proceedings of the National Academy of Sciences.* DOI: 10.1073/pnas.1913783116 (*Cartographic design*)
- Jesmer, B. R., J. A. Merkle, J. R. Goheen, , E. O. Aikens, D. E. McWhirter, A. B. Courtemanch, M. A. Hurley, H. M. Miyasaki, K. L. Monteith, J. L. Beck, and M.J. Kauffman. (2018). Is ungulate migration culturally transmitted? Evidence of social learning from translocated animals. *Science* (361) 1023-1025. (Figure and data visualization design)
- Benson, E. (2018). The long, strange trip of Deer 255 (aka in Print: The record-breaking journey of Deer 255). *High Country News* Aug 20, 2018, 6–7. (*Contributed data visualization design*)
- Müller, B., L. Johnson, and D. Kreuer. 2017 "Maladaptive outcomes of climate insurance in agriculture", *Global Environmental Change* 46: 23-33 (*Interactive figure visualization design*)
- Ripplinger, J., Collins, S. L., York, A. M., and Franklin, J. (2017). Boom–bust economics and vegetation dynamics in a desert city: How strong is the link? *Ecosphere* 8(5):e01826. 10.1002/ecs2.1826 (*Figure design*)

REFEREED CONFERENCE PROCEEDINGS

Wagner, M*., **Merson, J.**, Gentile, L.E., Wentz, E.A., (2016) Sustainable Urban Planning and Climate Change Scenarios: an investigation of Staten Island's urban planning. Proceedings of 5th Fábos Conference on Landscape and Greenway Planning, June 30, 2016. Budapest, Hungary.

NON-REFEREED PUBLICATIONS AND PROCUTS

Mazurek, L., Merson, J., Meacham, J., and Steingisser, A. Memorializing Connectivity: Ostia Antica's Piazza Delle Corporazioni. Online. https://bit.ly/OstiaPDC (Project and cartographic design)

- Meacham, J.E., Steingisser, A.Y., **Merson, J.**, (2019) Cartography at the University of Oregon InfoGraphics Lab. Chapter in Buckley, Aileen R. Editorial: 2019 US National Report to the ICA. Cartography and Geographic Information Science, 46:3, 195.
- Nickerson, G., **Merson, J.**, Kauffman, M., Meacham, J., and Steingisser, A. (2019) *World Record Deer Migration Visualized in 3D for the First Time, Film*, on-line. Wyoming Migration Initiative. (Contributed cartographic animation)
- Nickerson, G. and Zaffarano, T. (2019). *On the Elk Trail: A Wyoming migration miniseries. Episode 1*. Online. *(Contributed cartographic animation)*
- Redaelli, E. (2019). *Connecting Arts and Place: Cultural Policy and American Cities.* London, New York; Palgrave. (Cartographic design)
- Meacham, J.E., Steingisser, A., **Merson,J.**, (2019) *Cartography at the University of Oregon InfoGraphics Lab.* Chapter in Buckley, Aileen R. Editorial: 2019 US National Report to the ICA. Cartography and Geographic Information Science, 46:3, 195.
- Oregon Department of Geology and Mineral Industries (DOGAMI), Tsunami Evacuation Maps, 2018. (Cartographic design)
- UO Government & Community Relations. (2019). Oregon Impact 2019-20. Online. (Webmap design)
- Kauffman, M., Meacham, J.E., and Sawyer, H., Steingisser, A., Rudd, W. and Ostlind, E., (2018). Wild Migrations: An atlas of Wyoming's Ungulates. Oregon State University Press. (*Contributed to editing and data visualization design*)
- Benson, E. (2018). The long, strange trip of Deer 255 (aka in Print: The record- breaking journey of Deer 255). *High Country News.* Aug 20, 2018, 6–7. (Contributed figure and data visualization design)
- No Author. (2018). Connect Interview: Steve Huter, Director of the Network Startup Resource Center (NSRC). Issue 30, 24-26. (Contributed figure and data visualization design)
- **Merson, J.** (2017) Data Visualization by Andy Kirk Book Review. *Environment and Planning B: Urban Analytics and City Science.* DOI 10.1177/2399808317715320
- Meacham, J.E., and Jacobson-Tepfer, E. (2011), *Archaeology and Landscape in the Mongolian Altai: Atlas and Interactive Website*. Online. (Webmap update and support)
- **Merson, J.** (2006) Union of BC Municipalities Sprinkler Protection Program: Historical Trends, Current Practices, and Options for the Future. Union of British Columbia Municipalities: Victoria, Canada.

CONFERENCE/NOTABLE PRESENTATIONS

- **Merson, J.***, Conte, K. (2020) Routeview Visibility Map. Presented at Workshop on Active Internet Measurements: Knowledge of Internet Structure: Measurement, Epistemology, and Technology (AIMS-KISMET).
- Song, S.*, **Merson, J.**, Huter, S. (2019) Presentation of Pilot Mapping of East Africa Fiber Network. Presented via web to World Bank Vice President of Infrastructure.
- **Merson, J.***, Meacham, J.E., Steingisser, A.Y., (2019) "Designing "Beat the Wave" Tsunami Evacuation Maps". Presented at North American Cartographic Information Society Annual Meeting, Tacoma, Washington.
- Pulido, L.* (2019) "Commemorating to Erase: Making Visible White Supremacy in Oregon's Historic Places". Wayne Morse Resident Scholar Presentation (Fig. design)

- **Merson, J.***, Rosenberg, D., Meacham, J.E., (2018) "Transforming Priestley's 1769 Timeline into an Interactive Infographic". Presented at North American Cartographic Information Society Annual Meeting, Norfolk, Virginia.
- Meacham, J.E.*, Steingisser, A.Y., and **Merson, J**. (2018) "Wild Migrations: An Atlas for Conservation Advocacy", Presentation, Presented at North American Cartographic Information Society Annual Meeting, Norfolk, Virginia.
- **Merson, J.***, Rosenberg, D., Elan, B., Meacham, J., Meacham, J.E., (2018) "Interactive development on the Historical 1700's Priestley Timeline: A New Chart of History". Presented at Portland Cartography Symposium, Portland, Oregon.
- **Merson, J.** (2017) Determining current uses of cartographic animation in academic geography using a journal content analysis. Presented at North American Cartographic Information Society Annual Meeting, Montreal, Canada.
- **Merson, J.** (2016) Beyond Speed and Accuracy, Let's Focus on Engagement and Memorability: Creating A New Instruments for Evaluating Cartographic Animations. Presented at Association of American Geographers Annual Meeting, San Francisco, California.
- **Merson, J.** (2015) Beyond Speed and Accuracy, Let's Focus on Engagement and Memorability: Creating New Instruments for Evaluating Cartographic Animations. Presented at North American Cartographic Information Society Annual Meeting, Minneapolis, Minnesota.
- **Merson, J.** (2014) VisMatch: A Web Tool for Selecting Effective Space-Time Visualization Techniques, Tool Design, and Preliminary User Study Results. Presented at North American Cartographic Information Society Annual Meeting, 2014, Pittsburgh, Pennsylvania.
- **Merson, J*.** Deitrick, S. (2014) Uncertain Science, Policy, & Public Action. The Cartography and Geographic Information Society's AutoCarto Symposium, Pittsburgh, Pennsylvania.
- Li, Wenwen, Wentz*, E.A., and **Merson, J**. (2014) Normalized Mass Moment of Inertia to Quantify Space-Time Patterns of Urban Growth. Presented at GIScience, Vienna, Austria.
- **Merson, J.** (2014) VisMatch: A Web-Based Approach to Help Researchers Efficiently Identify Effective Space-Time Visualization Techniques. Presented at the Association of American Geographers Annual Meeting, Tampa, Florida.
- Wagner, M.*, **Merson, J**. (2014) The Role of Ian McHarg's Land Use Suitability in Hurricane Sandy. Presented at the Association of American Geographers Annual Meeting, Tampa, Florida.
- **Merson, J.** (2013) Communication of Nitrogen Removal Rates for a Watershed Management Spatial Decision Support System. Presented at the Association of American Geographers Annual Meeting, Los Angeles, California.

POSTERS

- **Merson, J.** (2015) Beyond Speed and Accuracy, Let's Focus on Engagement and Memorability: A New Framework for Evaluating Cartographic Animations. Presented at ASU Institute of Social Science Research Student Poster Contest. Tempe, Arizona
- Deitrick, S., **Merson, J.** (2014) Conceptualization and Representation of Uncertainty for Science-Based Policymaking. Presented at GIScience. Vienna, Austria.
- **Merson, J.** (2012) Calculation of Nitrogen Loads at the Catchment and Watershed Levels: For Inclusion in an Interactive Spatial Decision Support System. Presented at the Association of American Geographers Annual Meeting. New York, New York.

HONORS AND AWARDS

Highlighted in "Around the 'O'": One deer's journey: An epic migration is revealed in new maps.	Oct 2019	
https://around.uoregon.edu/content/one-deers-journey-epic-		
migration-revealed-new-maps Ecological Society of America George Mercer Award for Jesmer, B. R., J. A. Merkle, J. R. Goheen, , E. O. Aikens, D. E. McWhirter, A. B. Courtemanch, M. A. Hurley, H. M. Miyasaki, K. L. Monteith, J. L. Beck, and M.J. Kauffman. (2018). Is ungulate migration culturally transmitted? Evidence of social learning from translocated animals. Science (361) 1023-1025. (Contributed figure and data visualization design)	2019	
ASU College of Liberal Arts and Sciences 2016 Graduate Excellence Award	2016	
Association of American Geographers Cartography Specialty Group Honors Student Paper Competition Finalist	2016	
ASU Institute of Social Science Research Student Poster Competition Winner	2015	
ASU Graduate and Professional Students Association 2014-2015 Teaching Excellence Award (Nominee)	2015	
ASU College of Liberal Arts and Sciences 2014 Graduate Excellence Award	2014	
Association of American Geographers Cartography Specialty Group Honors Student Paper Competition Winner	2014	
Arizona Geographic Information Council Tony Gonzales Scholarship Award	2013	
ASU Graduate and Professional Students Association 2012-2013 Teaching Excellence Award (Nominee)	2013	
MicroGIS Foundation for Spatial Analysis Supplemental Research Fellowship, Lausanne Switzerland	2009	
Association of American Geographers Marble-Boyle Undergraduate Achievement Award in Geographic Science	2008	
Geomatics Canada Scholarship Award	2006	
Esri Canada Student Scholarship Award	2006	
The Leonard Foundation Scholarship	2004	
COMPETITIVE FUNDING		
NACIS Professional Travel Grant \$300 for travel to NACIS 2018	Oct 2018	
ASU Graduate and Professional Student Association Travel Grant \$450 for travel to NACIS 2017	Oct 2017	
ASU Graduate and Professional Student Association Travel Grant \$950 for travel to NACIS 2016	Oct 2016	
ASU Graduate and Professional Student Association Travel Grant \$950 for travel to American Association of Geographers' 2016 Annual General Meeting.	Mar 2016	

Preparing Future Faculty Emeriti Fellowship 2015-2016 \$1,500 research award	May 2015
Preparing Future Faculty Organization Travel Grant \$400 for travel to AutoCarto 2014	Sep 2014
North American Cartographic Information Society Student Travel Grant \$200 for travel to NACIS 2014	Sep 2014
ASU Graduate College Travel Grant \$350 for travel to GIScience 2014	Sep 2014
ASU Graduate and Professional Student Association Travel Grant \$950 for travel to GIScience 2014	Aug 2014
ASU Graduate College Travel Grant \$350 for travel to American Association of Geographers' 2014 AGM	Feb 2014
ASU Graduate and Professional Student Association Travel Grant \$550 for travel to American Association of Geographers' 2014 AGM	Mar 2014
ASU Graduate and Professional Student Association Travel Grant \$950 for travel to American Association of Geographers' 2013 AGM	Jan 2013
ASU Graduate and Professional Student Association Travel Grant \$950 for travel to American Association of Geographers' 2012 AGM	Dec 2011