Sterling D. Quinn, Ph. D.

Department of Geography, Central Washington University
400 E. Wildcat Way, Ellensburg, WA 98926
sterling.quinn@cwu.edu • www.sterlingquinn.net

Curriculum vitae (revised 11/7/2017)

Professional experience

Assistant Professor, Department of Geography, Central Washington University (2016 - present)

Part-time instructor, John A. Dutton e-Education Institute, College of Earth and Mineral Sciences, Penn State University (2009 – present)

GIS software product engineer, Esri Inc. (2005–2013)

Education

Doctor of Philosophy in Geography, Penn State University (2016)

Doctoral Committee: Alan M. MacEachren (chair), Anthony C. Robinson, Clio Andris, Guoray Cai

Dissertation Title: *A geovisual analysis of social influence in OpenStreetMap construction*

Extracurricular study: Summer Doctoral Programme at Oxford Internet Institute, University of Oxford (2015)

Master of Geographic Information Systems, Penn State University (2009)

Bachelor of Science in Geographic Information Systems, Brigham Young University (2005)

Teaching experience

Resident courses taught at Central Washington University

Geog 301: Introduction to GIS and Maps
Geog 303: GIS and Data Management
Geog 404: GIS Analysis
Geog 494: Applied GIS Project
Geog 496: Individual Study

Resident courses taught at Penn State University

Geog 160: Mapping our Changing World

Geog 494: Research Project in Geography

Online courses taught at Penn State University

Geog 485: GIS Programming and Automation

Geog 585: Open Web Mapping

Geog 863: GIS Mashups for Geospatial Professionals

Geog 865: Cloud and Server GIS

Peer-reviewed journal publications

Quinn, S., and Tucker, D. (2017). How geopolitical conflict shapes the mass-produced online map. *First Monday, (22)*11. http://dx.doi.org/10.5210/fm.v22i11.7922

Quinn, S., and MacEachren, A. (2017). A geovisual analytics exploration of the OpenStreetMap crowd. *Cartography and Geographic Information Science, 0*(0), 1–16. https://doi.org/10.1080/15230406.2016.1276479

Quinn, S. (2017). Using small cities to understand the crowd behind OpenStreetMap. *GeoJournal, 82*(3), 455–473. DOI: 10.1007/s10708-015-9695-6

Quinn, S. (2016). A geolinguistic approach for comprehending local influence in OpenStreetMap, *Cartographica*. DOI: 10.3138/cart.51.2.3301

Quinn, S., and Yapa, L. (2016). OpenStreetMap and food security: A case study in the city of Philadelphia, *The Professional Geographer*, *(68)*2, 271-280.

Nelson, J., **Quinn, S.**, Swedberg, B., Chu, W., and MacEachren, A. (2015). Geovisual Analytics Approach to Exploring Public Political Discourse in Twitter, *ISPRS International Journal of Geo-Information, 4*(1), 337-366.

Quinn, S., and Gahegan, M. (2010). A predictive model for frequently viewed tiles in a web map. *Transactions in GIS, 14*(2), 193–216.

Refereed conference papers / abstracts

Quinn, S., and Robinson, A. C. (2015). Mapping student engagement in a massive open online course (MOOC). Presented at International Cartographic Conference 2015, Rio de Janeiro, Brazil.

Quinn, S. (2014). Comparing VGI contributions across political units using geovisual analytics. Presented at GIScience 2014, Vienna, Austria. (Extended abstract)

Quinn, S. (2014). Open Web Mapping: An educational resource for creating online maps using free and open source software. Presented at FOSS4G 2014 (academic track), Portland, Oregon, USA.

Non-refereed conference presentations (presenter other than myself marked with *)

Quinn, S. (2017). ¿Quién mapeó la Argentina? Una exploración del archivo histórico de OpenStreetMap para comprender el conjunto de contribuyentes activos en el país. Presented at FOSS4G+State of the Map Argentina 2017, Buenos Aires, Argentina.

Quinn, S. and Tucker, D. A. (2017). Geopolitical conflict and elusive ground truth in online maps. Presented at the annual meeting of the American Association of Geographer 2017, Boston, Massachusetts, USA.

Quinn, S. (2016). Learning about the crowd behind OpenStreetMap through interactive visualization of the project history. Presented at State of the Map US 2016, Seattle, Washington, USA.

Quinn, S. (2016). Using geovisual analytics to understand contributor behavior in a crowdsourced map. The 1st Symposium on Research Methodologies in the Big Data Era, University Park, Pennsylvania, USA.

Quinn, S. (2016). Revealing the crowd behind OpenStreetMap using geovisual analytics. Presented at the annual meeting of the American Association of Geographers 2016, San Francisco, California, USA.

Quinn, S. (2015). Crossroads: Dissecting the construction of OpenStreetMap in a small mid American city. Presented at State of the Map US 2015, New York, New York, USA.

Quinn, S. (2015). Computing and visualizing nonlocal influence in OpenStreetMap: An analysis of South America. Presented at the Annual Meeting of the Association of American Geographers 2015, Chicago, Illinois, USA.

Quinn, S. (2014). The state of OpenStreetMap in South America. Presented at State of the Map 2014, Buenos Aires, Argentina.

Nelson, J.*, **Quinn, S.**, Swedberg, B., Chu, W., Houchen, M., Bodnar, T., and MacEachren, A. (2014). SPoTvis: A geovisual analytics tool for discovering multi-scale spatial patterns in tweets surrounding the 2013 US government shutdown. Presented at North American Cartographic Information Society Annual Meeting 2014, Pittsburgh, Pennsylvania, USA.

Quinn, S. (2014). Capturing local knowledge of urban food resources using OpenStreetMap. Presented at State of the Map US 2014, Washington, DC, USA.

Quinn, S., and Yapa, L. (2014). OpenStreetMap and enabling agency in food security. Presented at the Annual Meeting of the Association of American Geographers 2014, Tampa, Florida, USA.

Quinn, S. (2009). A predictive model for frequently-viewed tiles in a web map. Presented at the Annual Meeting of the Association of American Geographers 2009, Las Vegas, Nevada, USA.

Research experience

Research Assistant, Dr. Anthony C. Robinson, Penn State University (2013–2016)

Graduate Researcher working with Bioversity International (2015)

Research Assistant, Dr. Brandon Plewe and BYU Mapping Center, Brigham Young University (2004–2005)

Honors and awards

First place, Best Student Paper Competition – The 1st Symposium on Research Methodologies in the Big Data Era (2016)

GeoForAll Global Educator of the Year Award – Selected by the OSGeo Foundation for work authoring and teaching "Open Web Mapping" course (2015)

E. Willard Miller Award for best cartographic entry – Selected by Penn State Department of Geography for the "Philly Fresh Food Map" (2015)

Graduated Magna Cum Laude – Brigham Young University (2005)

Valedictorian – Brigham Young University Department of Geography (2005)

Grants and scholarships

International Studies and Programs Advisory Committee Grant - Awarded by Central Washington University Office of International Studies and Programs to assist with attendance at FOSS4G+State of the Map Argentina – $700 USD (2017)

Erickson Fund in Geography academic enrichment funds – Awarded by Penn State Department of Geography to assist with attendance at Oxford Internet Institute Summer Doctoral Programme - $500 USD (2015)

Travel grant to attend International Cartographic Conference in Rio de Janeiro – Awarded by US National Committee of the International Cartographic Association – $1800 USD (2015)

Graduate Student Travel Grant to attend State of the Map 2014 in Buenos Aires – Awarded by Penn State University Office of Global Programs – $500 USD (2014)

Scholarship to attend State of the Map US 2014 in Washington, DC – Awarded by OpenStreetMap US – $500 USD (2014)

Gordon B. Hinckley Presidential Scholarship – Awarded by Brigham Young University – Four years of full undergraduate tuition plus living stipend (2000–2005)

Academic and professional service

Member of Curriculum Committee for Central Washington University Department of Geography (2017–present)

Geography Club faculty advisor for Central Washington University Department of Geography (2016–present)

Member of Scholarship Committee for Central Washington University Department of Geography (2016–2017)

Member of Graduate Program and Curriculum Committee for Penn State Department of Geography (2015–2016)

Initiated and taught a series of GIS coding workshops for students in the Penn State Department of Geography (2015)

Helped coordinate Penn State Department of Geography graduate student mentoring program for undergraduate research assistants, and mentored two of my own students (2014–2015)

Served as treasurer of Penn State Department of Geography graduate student organization (2014–2015)

Organized and directed OpenStreetMap map-a-thons at Penn State for humanitarian mapping following Typhoon Haiyan (2013), the West Africa Ebola outbreak (2014), and the Nepal earthquake (2015).

Peer reviewer service (with number of articles reviewed)

Transactions in GIS (4)
Cartographica (2)

Cartography and Geographic Information Science (2)
IEEE Visual Analytics Science and Technology (VAST) papers (1)
International Journal of Geographic Information Science (1)
Spatial Cognition and Computation (1)

Teaching assistantships

Resident courses TA'd at Penn State University
Geog 126: Economic Geography

Resident courses TA'd at Brigham Young University
Geog 217: Programming for Geographers I
Geog 317: Programming for Geographers II

Invited panelist

Doing geography: Teaching with Webmaps in the lower division classroom. Annual Meeting of the American Association of Geographers 2017, Boston, Massachusetts, USA.

Coding and app development in geography and GIS education. Annual Meeting of the American Association of Geographers 2016, San Francisco, California, USA.

Online GIS and mapping tools: Advances and challenges of putting the power of GIS into the hands of non-geographers. Annual Meeting of the Association of American Geographers 2014, Tampa, Florida, USA.

What can "The Cloud" do for my 2-year Undergraduate Program? Annual Meeting of the Association of American Geographers 2012, New York, New York, USA.

Academic and professional memberships

OpenStreetMap Foundation (2015–present)
American Association of Geographers (2013–present)
Gamma Theta Upsilon (2005-present)

Technical skills

Digital mapping and analysis using ArcGIS, QGIS, GeoDa, GeoServer, Mapbox, CARTO Builder, OpenLayers, and the Google Maps API

Programming in Python, R, JavaScript, and Microsoft .NET languages (C# and Visual Basic .NET)

Cloud computing using Amazon Web Services (including the Amazon Elastic Compute Cloud, or EC2)

Database design and SQL queries with PostgreSQL and the PostGIS extension

Language experience

English with native fluency

Spanish at fluent level of reading, listening, writing, and speaking

Portuguese at basic to intermediate level. Can read and write with dictionary.