LINNA LI

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Research Interests

Geographic Information Science: geographic representation, spatial data quality, data conflation, spatial analysis, Cyberinfrastructure, Web GIS, spatial databases, GIS applications

Urban Geography: transportation, urban growth modeling, health GIS Spatio-temporal data mining: volunteered geographic information, crowdsourcing, social media, social networks

Education

Ph.D. in Geography 2007-2010

Department of Geography, University of California, Santa Barbara Dissertation Title: Design of a conceptual framework and approaches for geo-object data conflation Advisor: Dr. Michael F. Goodchild

M.S. in Geography 2005-2006 Department of Geography, University of South Carolina

B.S. in Geographic Information Science 2000-2004 (with honors) School of Earth and Space Sciences, Peking University, China

Appointments

Assistant Professor, Department of Geography, CSU, Long Beach, 2013-present

Postdoctoral Scholar, Center for Spatial Studies, Department of Geography, University of California, Santa Barbara, 2010-2013

GIS consultant, Center for Spatial Studies, University of California, Santa Barbara, 2011-2012

Teaching Assistant, Department of Geography, University of California, Santa Barbara, 2010

Graduate Student Researcher, Center for Spatial Studies, Department of Geography, University of California, Santa Barbara, 2007-2010

Graduate Student Researcher, GeoVISTA Center, Department of Geography, Pennsylvania State University, 2006-2007

Research Assistant, Hazards Research Lab, Department of Geography, University of South Carolina, 2005-2006

Research Assistant, Center for GIS and Remote Sensing, Department of Geography, University of South Carolina, 2005

Honors and Awards

CSULB Investigator Research Stimulation Award, 2013 Doctoral Student Travel Grant at UCSB, 2010 Dangermond Travel Scholarship, 2009, 2010 E. Willard Miller Award at Penn State University, 2006 Excellent Graduate in Beijing City, 2004 Bachelor Thesis Award, 2004 Outstanding Undergraduate Scholarship in Beijing City, 2003 Outstanding Undergraduate Scholarship at Peking University, 2003 May Fourth Fellowship, 2002, 2003

Peer Reviewed Journal Articles

Li, L., Goodchild, M. F. and Xu, B. 2013. Spatial, temporal, and socioeconomic patterns in the use of Twitter and Flickr, *Cartography and Geographic Information Science*, 40(2): 61-77.

Li, W., <u>Li, L.</u>, Goodchild M.F., Anselin L. 2013. A geospatial cyberinfrastructure for urban economic analysis and spatial decision-making. *ISPRS International Journal of Geo-Information*, 2(2): 413-431.

Zhou, L., Xu, B., Ma, W., Zhao, B., <u>Li, L.</u>, Huai, H. 2013. Evaluation of Hyperspectral Multi-Band Indices to Estimate Chlorophyll-A Concentration Using Field Spectral Measurements and Satellite Data in Dianshan Lake, China. *Water* 5, 525-539.

Goodchild, M.F. and <u>Li, L.</u>, 2012. Assuring the quality of volunteered geographic information, *Spatial Statistics*, 1: 110–120.

Li, L. and Clarke, K. C. 2012. Cartograms showing China's population and wealth distribution. *Journal of Maps*, 8(3): 320–323.

Li, L. and Goodchild, M.F. 2011. An optimization model for linear feature matching in geographical data conflation. *International Journal of Image and Data Fusion*, 2(4): 309–328.

Li, L. and Goodchild, M.F. 2010. The role of social networks in emergency management: a research agenda. *International Journal of Information Systems for Crisis Response and Management*, 2(4): 49–59.

Papers in Peer Reviewed Conference Proceedings

Gao, S., Janowicz, K., McKenzie, G., <u>Li, L</u>. 2013. Towards platial joins and buffers in place-based GIS. In: *Proceedings of ACM SIGSPATIAL COMP'13*, November 5, 2013. Orlando, FL, USA.

Li, L. and Goodchild, M.F. 2013. Is privacy still an issue in the era of big data? –Location disclosure in spatial footprints, In: *Proceedings of the 21st International Conference on Geoinformatics*, June 20-22 2013. Kaifeng, Henan, China.

Li, L. and Goodchild, M.F. 2012. Constructing places from spatial footprints, In: *Proceedings of ACM SIGSPATIAL GEOCROWD'12*, November 6, 2012. Redondo Beach, CA, USA.

Li, L. and Goodchild, M.F. 2010. Automatically and accurately matching objects in geospatial datasets. In: *Proceedings of Theory, Data Handling and Modelling in GeoSpatial Information Science*, Hong Kong, 26–28 May, 2010.

Li, L. and Goodchild, M.F. 2010. Optimized feature matching in conflation. *Geographic Information Science - 6th International Conference, GIScience 2010*, Extended Abstracts Volume. R. Purves and R. Weibel (Eds.). Zurich, Switzerland.

Adams, B., <u>Li, L.</u>, Raubal, M., and Goodchild, M.F. 2010. A General Framework for Conflation. *Geographic Information Science - 6th International Conference, GIScience 2010*, Extended Abstracts Volume. R. Purves and R. Weibel (Eds.). Zurich, Switzerland.

Book Chapters

Li, L. and Goodchild, M.F. Spatio-temporal footprints in social networks, In: *Encyclopedia of Social Networks and Mining*, Springer. In press.

Goodchild, M.F. and <u>Li, L</u>. 2012. Formalizing space and place. In P. Beckouche, C. Grasland, F. Guérin-Pace, and J.-Y. Moisseron, editors, *Fonder les Sciences du Territoire*, pp. 83–94. Paris: Éditions Karthala.

Technical Reports

<u>Li, L.</u>, Goodchild, M.F. K. Currier, I. Hurt, T. Armstrong, D. Avon, L. Berry, A. Hammer-Barulich, B. Karaffa, and S. Truitt. 2011. VGI tools: an overview and evaluation. Project report to Esri.

<u>Li, L.</u> and Goodchild, M.F. 2010. Report on spatio-temporal constraints on social networks workshop, Upham Hotel, Santa Barbara, California, December 13–14, 2010.

Presentations

Li, L. Geoprivacy and location disclosure. Presentation at the Annual Meeting of the Association of American Geographers, Tampa, FL, USA, April 8-12, 2014.

Li, L., Goodchild, M.F., Raubal, M, and Gao, S. Success story: geospatial feature conflation: conceptual, statistical, and optimization approaches, National Geospatial Intelligence Agency Academic Research Program Symposium (NARP), National Academy of Sciences, Washington, D.C., September 2013.

Li, L. and Goodchild, M.F. 2013. Is privacy still an issue in the era of big data? –Location disclosure in spatial footprints, In: *Proceedings of the 21st International Conference on Geoinformatics*, June 20-22 2013. Kaifeng, Henan, China.

Li, L. and Goodchild, M.F. 2012. Constructing places from spatial footprints, In: *Proceedings of ACM SIGSPATIAL GEOCROWD'12*, November 6, 2012. Redondo Beach, CA, USA.

Li, L. 2012. Who tweets and who flickrs?—spatial, temporal, and socioeconomic patterns in the use of Twitter and Flickr. Specialist Meeting on Mapping Ideas: Discovering and Information Landscapes. August 1–3, 2012, San Diego (invited).

Li, L., and Goodchild, M.F. 2012. Spatio-temporal patterns in the use of Twitter and Flickr. Presentation at the Annual Meeting of the Association of American Geographers, New York, Feb. 23–28, 2012.

Li, L., Goodchild, M.F., Raubal, M, and Ben Adams. Geospatial feature conflation: conceptual, statistical, and optimization approaches, National Geospatial Intelligence Agency Academic Research Program Symposium (NARP), National Academy of Sciences, Washington, D.C., September 2011.

Li, L. and Goodchild, M.F. 2011. Spatio-temporal patterns of VGI. Presentation at the Annual Meeting of the Association of American Geographers, Seattle, Washington, Apr. 12–16, 2011.

Li, L. and Goodchild, M.F. 2011. Travel behavior studies using volunteered geographic information, VGI pre-conference, Seattle, Washington, Apr. 11, 2011.

Li, L., Goodchild, M.F., and Raubal, M. Geospatial feature conflation: conceptual, statistical, and optimization approaches, National Geospatial Intelligence Agency Academic Research Program Symposium (NARP), National Academy of Sciences, Washington, D.C., September 2010.

Li, L. and Goodchild, M.F. 2010. Automatic feature matching in conflation by optimization. Presentation at the Annual Meeting of the Association of American Geographers, Washington, DC, Apr. 14–18, 2010.

Li, L. and Goodchild, M.F. 2009. A conceptual framework for geographical data conflation. Presentation at the Annual Meeting of the Association of American Geographers, Las Vegas, Mar. 22–27, 2009.

Li, L. Design of a conceptual framework and tools for geo-object conflation. Department of Geography Colloquium, UCSB, Dec. 4, 2008

Li, L. and MacEachren, A.M. 2007. Supporting geocollaboration using map-based discussion. Presentation at the Annual Meeting of the Association of American Geographers, San Francisco, Apr. 17–21, 2007.

Li, L. and Hardisty, F. 2006. Web based synchronous geocollaboration. Presentation at the Annual Meeting of the Association of American Geographers, Chicago, Mar. 7–11, 2006.

Referee for Journals

GeoJournal

Cartography and Geographic Information Science International Journal of Geographical Information Science International Journal of Image and Data Fusion International Journal of Digital Earth Transactions in GIS Social Networks IBM Journal of Research and Development The Professional Geographer ISPRS International Journal of Geo-Information Geoforum

Teaching

GEOG 471/HCA 471 *GIS for health*, Department of Geography, CSU, Long Beach, 2014 Spring

GEOG 680 *Seminar in geospatial science*, Department of Geography, CSU, Long Beach, 2014 Spring

GISC 605 *GIS programming*, Department of Geography, CSU, Long Beach, 2014 Spring

GEOG 487B/587B, *Urban and Economic Applications of GIS*, Department of Geography, CSU, Long Beach, 2013 Fall

GEOG 488/588, *Advanced Geographic Information Science*, Department of Geography, CSU, Long Beach, 2013 Fall

Guest Lecturer, *Technical Issues in Geographic Information Systems*, Department of Geography, University of California, Santa Barbara, 2010, 2012

Teaching Assistant, *Technical Issues in Geographic Information Systems*, Department of Geography, University of California, Santa Barbara, 2010

Past Research Projects

LA-Plan: Virtual co-laboratory for policy analysis in the greater L.A. region, funded by the University of California's Multi-campus Research Program and Initiative (MRPI), 2012–2013

A GIScience approach for assessing the quality, potential applications, and impacts of volunteered geographic information, funded by National Science Foundation and Army Research Office, 2010–2013

Geospatial feature conflation: conceptual, statistical, and optimization approaches, funded by National Geospatial Intelligence Agency, 2009–2013

MeTrIS: metropolitan transportation information system for the Los Angeles and Long Beach region, funded by U.S. Department of Transportation, 2007–2009

North-east visualization and analytics project, 2006-2007

National consortium for the study of terrorism and responses to terrorism (START), 2005–2006

Development of remote sensing hazard guidance system, 2005

Development of a smart urban growth model, 2005

GIS database of land use and land cover change in Beijing city between 1992 and 2002, 2004

Monitoring winter wheat phenology and analyzing relationship between its yield and integral NDVI based on NOAA AVHRR data, 2003–2004

Property insurance and disaster mitigation, funded by Beijing Natural Science Foundation, 2003