

Kirk Goldsberry
Visiting Scholar
Harvard University,
Assistant Professor of Geography
Michigan State University

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EDUCATION

Ph.D. in Geography (2007), University of California, Santa Barbara
Dissertation: Real-Time Traffic Maps for the Internet
Dissertation Committee: Keith Clarke (Chair), Waldo Tobler, Kostas Goulias,
Sara Fabrikant (University of Zurich)

M.A. in Geography (2004), University of California, Santa Barbara
Thesis: The Role of Quantitative Map Comparison in Thematic Map Animations
Thesis Committee: Sara Fabrikant (Chair), Keith Clarke, Phaedon Kyriakidis

B.S. in Earth Sciences, Geography (1999), Pennsylvania State University, University Park, PA
Minor in GIS
Thesis: Interdisciplinary comparison of three-dimensional coordinate systems

ACADEMIC EMPLOYMENT

- Visiting Scholar, Harvard University, Center for Geographic Analysis (2011-)
- Assistant Professor, Michigan State University, Department of Geography (2007-)
- Instructor, UC-Santa Barbara, Department of Geography (2006-2007)
- Research Assistant, UC-Santa Barbara, Department of Geography (2004-2005)
- Teaching Assistant, UC-Santa Barbara, Department of Geography (2002-2005)

PUBLICATIONS

- Shortridge, A., **Goldsberry, K.**, Weessies, K. (2011) *Errors in the 2010 NRC assessment of geography graduate education*. *Journal of Geography* 110(6): 219-226
- Fish, C., **Goldsberry, K.**, and Battersby S. (2011) *Change Blindness in Animated Choropleth Maps: An Empirical Study*. *Cartography and Geographic Information Science* 38(4): 350-362.
- Duvall, C., Howard, P., and **Goldsberry, K.**, (2010) *An Ecological Approach to Understanding Food Environments in Lansing, Michigan*. *Journal of Hunger and Environmental Nutrition* 5(4): 526-541.
- **Goldsberry, K.**, AcMoody, S. (2010) *Mapping Nutritional Terrain: Using GIS To Identify*

Food Deserts In Lansing, Michigan. ArcUser 13(4): 48-49.

- **Goldsberry, K.**, Duvall, C., Howard, P., Stevens, J. (2010) Nutritional Terrain Mapping: A Geospatial Investigation of Pedestrian Produce Accessibility. *GeoCarto International 25(6): 485-499.*
- Battersby, S. and **Goldsberry, K.** (2010) *Transition Behaviors in Dynamic Thematic Maps. Cartographic Perspectives, 65: 16-32*
- **Goldsberry, K.**, and Battersby, S. (2009) *Issues of Change Detection in Animated Choropleth Maps. Cartographica, 44(4): 201-215*
- Dillemuth, J., **Goldsberry, K.**, Clarke, K. (2007) *Choosing The Scale And Extent Of Maps For Navigation With Mobile Computing Systems. Journal of Location Based Services, 1(1): 41-61*

PUBLICATIONS IN REVIEW

- **Goldsberry, K.**, Battersby S., and Socia, K. (Submitted March, 2011) *The Development of an Interactive Health Facility Atlas. Journal of Maps*
- Husak GJ, Funk, CC, Michaelsen, J, Magadzire, T, **Goldsberry, K.** (Submitted April 2011) How the Past Can Help Prevent Future Food Shortages. *Journal of Applied Meteorology and Climatology*
- **Goldsberry, K.**, Duvall, C., Howard, P., (submitted April 2011) *The importance of mobility in urban food environments: Comparing fresh produce accessibility for drivers and pedestrians in Lansing, Michigan. Health and Place*

PEER-REVIEWED CONFERENCE PROCEEDINGS

- **Goldsberry, K.** (2011). *Visualizing Health Care Accessibility: An Online Atlas Of Medical Services In Michigan, USA.* Proceedings of the 25th International Cartography Conference, Paris, France, July 3-8, 2011
- **Goldsberry, K.**, Fish, C. (2010) *Legibility of Transitions in Dynamic Geovisual Displays: Determining the influence of Change Blindness in Geovisual Analytics.* Proceedings of GIScience 2010, Zurich, Switzerland, September 14-17, 2010
- **Goldsberry, K.** and Duvall, C. (2009). *Visualizing Nutritional Terrain: An Atlas Of Produce Accessibility In Lansing, Michigan, USA.* Proceedings of the 24th International Cartography Conference, Santiago, Chile, November 16-21, 2009
- **Goldsberry, K.** (2008) *GeoVisualization of Automobile Congestion.* GeoVisualization of Dynamics, Movement and Change, Proceedings of the AGILE 2008 Conference. Girona, Spain, May 5, 2008

- **Goldsberry, K.** and Dillemath, J. (2006) *Spatial Context in Mobile Map Design: Display Scale and Viewable Map Extent*. Proceedings, GIScience 2006, Muenster, Germany, September 19-23, 2006
- Fabrikant, S.I. and **Goldsberry, K.** (2005). *Thematic Relevance And Perceptual Salience Of Dynamic Geovisualization Displays*. Proceedings, 22nd ICA/ACI International Cartographic Conference, A Coruna, Spain, July 9-16, 2005
- **Goldsberry, K.** (2005). *Limitations And Potentials Of Real-Time Traffic Visualization For Wayfinding*. Proceedings, 22nd ICA/ACI International Cartographic Conference, A Coruna, Spain, July 9-16, 2005
- **Goldsberry, K.**, Fabrikant, S.I., Kyriakidis, P. (2004) *The Influence Of Classification Choice On Animated Choropleth Maps*. Proceedings, Annual Meeting of the North American Cartographic Society (NACIS), Portland, ME, Oct. 6-9, 2004

BOOK REVIEWS

- **Goldsberry, K.** (2009). *Terry A. Slocum, McMaster, R.B, Kessler F.C., Howard, H.H., Thematic Cartography and GeoVisualization, 3rd ed., Upper Saddle River, NJ, Prentice Hall Series in Geographic Information Science, 2009, p 377 pages, US\$133 hardcover*. Cartographica, Vol. 44, No. 4, pp. 305-308
- **Goldsberry, K.** (2009). *David I. Macleod (Ed), Mapping in Michigan and the Great Lakes Region, East Lansing, Michigan State University Press, 2007, 377 pages, US\$42 hardcover*. USA. Journal of Historical Geography Vol. 35 pgs. 401-402

ATLASES

- **Goldsberry, K.**, Socia, K. (2010). *The 2010 Interactive Michigan Department of Community Health Atlas*. Produced in conjunction with the Certificate of Need Research Program and Online Health Facility Mapping project. 2009-2010. Available online at: <http://health.geo.msu.edu/atlas.html>
- **Goldsberry, K.**, Raetz, S. (2010). *The 2009 Michigan Department of Community Health Atlas*. Produced in conjunction with the Certificate of Need Research Program and Online Health Facility Mapping project. 2009-2010. 99 pages. www.msu.edu/~kg/mdch_atlas.pdf
- **Goldsberry, K.**, Raetz, S. (2009). *The 2008 Michigan Department of Community Health Atlas*. Produced in conjunction with the Certificate of Need Research Program and Online Health Facility Mapping project. 2008-2009. 97 pages
- **Goldsberry, K.**, Duvall, C., Howard, P., Stevens, J. (2009). *An Online Atlas Of Produce Accessibility In Lansing, Michigan*. Produced in conjunction with the Michigan State Intramural Research Grants Program. 2008-2010. Available online at: <http://www.geo.msu.edu/food/media/atlas/atlas.htm>

REPRINTED MAPS

- Real-Time Map of Los Angeles Traffic, in Clarke, K., (2010), *Getting Started With Geographic Information Systems*, 5th Edition, Prentice Hall, 432 pp.
- Magnitude of Change Graphic, in Slocum, T., (2009), *Thematic Cartography and Geovisualization*, 3rd Edition, Prentice Hall, 576 pp.

THESES AND DISSERTATIONS

- **Goldsberry, K.** (2007) *Real-Time Traffic Maps*. Doctoral Dissertation. Accepted August 2007, University of California Santa Barbara
- **Goldsberry, K.** (2004) *Stabilizing The Rate Of Change In Thematic Map Animations*. Unpublished Master's thesis. Accepted June 2004, University of California Santa Barbara

CONFERENCE PRESENTATIONS

- **Goldsberry, K.** and Fish, C. (2010) *Legibility of Transitions in Dynamic Geovisual Displays: Determining the Influence of Change Blindness in Geovisual Analytics*. GIScience 2010, Zurich, Switzerland, September 14-17, 2010
- Shortridge, A., **Goldsberry, K.** (presenting author), and Naizghi, A. (2010) *Scale and Nutritional Terrain*. GIScience 2010, Zurich, Switzerland, September 14-17, 2010
- **Goldsberry, K.** (2010) Session Organizer: 3 Sessions on Geovisualization / Geovisual Analytics, Cognition, Behavior, and Representation. Annual Meeting of the American Association of Geographers, Washington D.C., April 14-18, 2010. Specialty Group Sponsors: GISSG, CSG, EPSG, GeoEd
- **Goldsberry, K.**, Fish, C. (2010) *Change We Can Perceive In: Change Legibility In Dynamic Displays of Geographic Information*. Annual Meeting of the American Association of Geographers, Washington D.C., April 14-18, 2010
- Fish, C., **K. Goldsberry**, (2010) *Animated Choropleth Maps and Human Change Detection* Annual Meeting of the American Association of Geographers, Washington D.C., April 14-18, 2010
- Naizghi, A., **K. Goldsberry**, (2010) *An Alternative Approach To Ancillary Data In Dasymeric Mapping Techniques*. Annual Meeting of the American Association of Geographers, Washington D.C., April 14-18, 2010
- Stevens, J., **K. Goldsberry**, (2010) *Nutritional Terrain Mapping and Produce Accessibility in Lansing, MI*. Annual Meeting of the American Association of Geographers, Washington D.C., April 14-18, 2010
- **Goldsberry, K.** (2009). *Visualizing Nutritional Terrain: An Atlas Of Produce Accessibility In Lansing, Michigan, USA*. 24th International Cartography Conference, Santiago, Chile, November 16-21, 2009

- **Goldsberry, K.** (2009) *Characterizing Changes in Dynamic Geographic Information Displays*. Annual Meeting of the American Association of Geographers, Las Vegas, Nevada, March 22-27, 2009
- **Goldsberry, K.** (2009) Session Organizer: Cognition, Behavior, and Representation. Annual Meeting of the American Association of Geographers, Las Vegas, Nevada, March 22-27, 2009. Specialty Group Sponsors: GISSG, CSG, EPSG, GeoEd
- **Goldsberry, K.** (2009) Panel Member: Geographic Information Ethics and GIScience. Annual Meeting of the American Association of Geographers, Las Vegas, Nevada, March 22-27, 2009. Organizers: Francis Harvey, Dawn Wright
- **Goldsberry, K.** (2008) *GeoVisualization of Automobile Congestion*. GeoVisualization of Dynamics, Movement and Change, Workshop at the AGILE 2008 Conference. Girona, Spain, May 5, 2008
- **Goldsberry, K.** (2008) *Tweening in Cartographic Animation*. Annual Meeting of the American Association of Geographers, Boston, Massachusetts, April 15-19, 2008
- **Goldsberry, K.** (2007) *A Vector-based Solution for Real-Time Traffic Maps on the Internet*. North American Cartographic Information Society, Saint Louis, Missouri, October 2007
- **Goldsberry, K.** (2007) *Improving Traveler Information Delivery: A Cartographic Approach to Traffic Maps*. 86th Annual Meeting of the Transportation Research Board, Washington, D.C., January 21-25, 2007
- **Goldsberry, K.** (2006) *An Animated Map of Los Angeles Traffic*. North American Cartographic Information Society, Madison, Wisconsin, October 16-19, 2006
- **Goldsberry, K.** and Dillemath, J. (2006) *Spatial Context in Mobile Map Design: Display Scale and Viewable Map Extent*. GIScience 2006, Muenster, Germany, September 19-23, 2006
- **Goldsberry, K.** (2006) *Designing Better Traffic Maps*. A presentation for the 2006 University of California Transportation Center's Student Conference, Berkeley, California, February 10, 2006
- **Goldsberry, K.** (2005) *Limitations And Potentials Of Real-Time Traffic Visualization For Wayfinding*. ICA/ACI International Cartographic Conference, A Coruna, Spain, July 9-16, 2005
- **Goldsberry, K.**, Fabrikant, S.I., Kyriakidis, P. (2004) *The Influence Of Classification Choice On Animated Choropleth Maps*. Proceedings, Annual Meeting of the North American Cartographic Society (NACIS), Portland, ME, Oct. 6-9, 2004
- **Goldsberry, K.** (2004) *Stabilizing The Rate Of Change In Thematic Map Animations*. A presentation for the 2004 NSF IGERT Multimedia Review at UCSB, October, 2004

COLLOQUIA

- Harvard CGA Seminar, October 19, 2011
 - Visualizing Nutritional Terrain of American Cities
- Penn State Geography Coffee Hour, September 23, 2011
 - Geospatial Analyses of American Food Environments
 - <http://education.mediasite.com/mediasite/Viewer/?peid=5feed4c45dba4de7ae1d58050d90b3241d>
- University of South Carolina, Nutrition Center Seminar Series, October 22, 2010
 - Visualizing Nutritional Terrain: Using GIS To Evaluate Urban Food Environments In Lansing, Michigan
- University of Texas Department of Geography Colloquium, February 19, 2010
 - Mapping Food Deserts
- University of South Carolina, Department of Geography Colloquium Series, February 12, 2010
 - Are Food Environments a Public Health Hazard?
- University of California, Santa Barbara, Department of Geography Colloquium, Santa Barbara, California, November 6, 2008
 - The Fundamentals of Animated Cartography are Strong
- Oregon State University, Corvallis, Oregon, February 20, 2007
 - GeoVisualization Seminar: Real-Time Traffic Visualization Strategies
- City University, London, England, February 5, 2007
 - Real-Time Traffic Maps for Los Angeles, California
- NSF IGERT Program Review, November 17, 2006
 - On Cartography for Minotour: A Wikipedia-based tour application

GRANTS AND AWARDS FUNDED (CURRENT)

- **Goldsberry, K.** (PI), (2011-2012). Certificate of Need Research Program and Online Health Facility Mapping. Michigan Department of Community Health. \$50,000.

NOT FUNDED

- **Goldsberry, K.** (PI), Grady, S., Finley, A., Howard, P., Noel, M., Submitted August 2010. (2011-2013). *Nutritional Terrain and Body Mass Index: Probing Produce Accessibility as a Contextual Influence*. National Institutes of Health (R21). \$400,300 Requested.
- **K. Goldsberry** (PI), Gude, K. (submitted May 2009) Visual Communication of Complex Information: *A Model for High-Impact Undergraduate STEM Curricula*. National Science Foundation. \$199,958 requested

- **K. Goldsberry** (PI), Howard, P., Finley, A., (submitted June 2009)
Nutrition Environments and Body Mass Index: Spatial Associations Between Produce Accessibility and BMI of Young Adults. National Institutes of Health (R21). \$405,828 requested
- P. Howard, **K. Goldsberry**, Hoerr, S., Finley, A., (submitted June, 2009) *Young Adult Body Mass And Proximity To Nutrient-Dense Foods*. United States Department of Agriculture. \$1,499,699.00 requested

PREVIOUSLY FUNDED

- **Goldsberry, K.** (PI), (2010-2011). Certificate of Need Research Program and Online Health Facility Mapping. Michigan Department of Community Health. \$45,000.
- **Goldsberry, K.** (PI), (2009-2011). *Visual Literacy for Geographers: Enhancing Graphic Communication of Geographic Information*. Michigan State University Lilly Teaching Fellowship. \$14,500.
- **Goldsberry, K.** (PI), (2009-2010). Certificate of Need Research Program and Online Health Facility Mapping. Michigan Department of Community Health. \$30,000.
- **Goldsberry, K.** (PI), (2008-2010). *Nutritional Terrain Mapping: Analyzing Produce Availability and Accessibility in Lansing, Michigan*. Michigan State Intramural Research Grants Program. \$30,718.
- UCSB Instructional Grant, June 2007
 - Re-designed and updated Waldo Tobler's Historical Cartography course
- Jack Dangermond Travel Fellowship, August 2006
 - Awarded by UCSB Department of Geography, and ESRI
- UCSB Department of Geography Excellence in Teaching Award, June 2006
 - Awarded by the UCSB Department of Geography
- NSF IGERT Multimedia Fellowship, May 2006
 - Awarded by the National Science Foundation Integrative Graduate Education and Research Traineeship Program (NSF IGERT)
- Dwight D. Eisenhower Transportation Fellowship, April 2006
 - Awarded by the United States Department of Transportation
- University of California Transportation Center Dissertation Award, February 2006
 - Awarded by the University of California Transportation Center, Berkeley, California
- NSF Young Scholars Award, May 2005
 - Travel grant for Travel to 22nd ICA/ACI meeting in A Coruna, Spain, July, 2005

- UCSB Instructional Grant, June 2004
 - Created new multimedia-based lab assignments for Geography Department's cartographic design classes: Geography 118 and Geography 184C

- NSF IGERT Multimedia Fellowship, May 2004
 - Awarded by the National Science Foundation Integrative Graduate Education and Research Traineeship Program (NSF IGERT).

TEACHING MICHIGAN STATE

UGS 102: MSU Freshman Seminar Abroad: North Island, New Zealand, Summer 2010

- The Cultural, Historical And Physical Landscapes Of New Zealand: An Exploration Of North Island Geography.

GEO 325V: Geographic Information Systems, Anticipated Summer 2011

- Online course creation, 2009-2010
- This online course will be the second GIS course to be offered at Michigan State's Virtual Campus. The course introduces students to technical and theoretical issues in the design, implementation, and use of geographic information systems for research and applications.

GEO 221V: Introduction to Geographic Information, Summer 2009

- Online course creation, 2008-2009
- This online course is the first GIS course to be offered at Michigan State's Virtual Campus. The course introduces students to basic concepts in Geographic Information Science and prepares them for upper-division classes in GIS, Cartography, and Remote Sensing.
- Syllabus available: <http://www.geo.msu.edu/virtualgeog/geo221v.htm>

GEO 874: GIScience Seminar, Spring Semester, 2009

- Designed new course curriculum, Fall 2008
- The course introduces graduate-level GIScience students to some of the most important GIScience publications. The reading list is split between seminal works from authors such as Sinton, Goodchild, and Tobler and contemporary articles pulled from important GIS journals including IJGIS, Transactions in GIS, and the Annals of the AAG. Students also complete individual research projects that bridge the gap between theoretical and applied GIScience.
- Syllabus available: http://www.msu.edu/~kg/874_syllabus.pdf

GEO 426: Thematic Cartography, Spring Semesters 2008, 2009, 2010

- Designed new course curriculum, Fall 2007
- The course emphasizes concepts and techniques that guide the design, production and delivery of thematic maps. The lectures offer a broad introduction to mapping sciences and visual thinking. The labs emphasize design and production for contemporary media, especially the World Wide Web.
- Syllabus available: <http://www.msu.edu/~kg/426SYLLABUS.pdf>

GEO 423: Map Design, Fall Semester 2008, 2009

- Designed new course curriculum, Summer 2008
- This course introduces map design in three parts. The first emphasis is on graphic design and typography. The second part of the course focuses on reference map design and production. The third section of the course

integrates design principles and contemporary media. The labs are designed to offer hands-on experience in cartographic representation, graphic design, and web design and map production.

- o Syllabus available: <http://www.msu.edu/~kg/423SYLLABUS.pdf>

MSU Teaching Evaluations, SIRS scores:

KIRK GOLDSBERRY: SUMMARY OF TEACHING EVALUATION FORMS

		1 (Favorable)		2		3		4		5 (Unfavorable)		na		item statistics		
		N	%	N	%	N	%	N	%	N	%	N	%	mean	std dev	n
GEO 426	Spring 2008	85	61.2	28	20.1	7	5	11	7.9	5	3.6	3	2.2	1.7	1.12	136
GEO 423	Fall 2008	192	68.8	56	20.1	10	3.6	6	2.2	14	5	1	0.4	1.54	1.03	278
GEO 426	Spring 2009	180	85.7	28	13.3	2	1	0	0	0	0	0	0	1.15	0.39	210
GEO 874	Spring 2009	111	72.1	16	10.4	18	11.7	1	0.6	0	0	8	5.2	1.38	0.73	146
GEO 423	Fall 2009	252	69.2	88	24.2	8	2.2	1	0.3	13	3.6	2	0.5	1.44	0.86	362
GEO 426	Spring 2010	165	89.7	19	10.3	0	0	0	0	0	0	0	0	1.1	0.31	184

GRADUATE ADVISING

Primary Advisor:

- o Joshua Stevens (M.S. Geography) **completed August 2011**
- o Meghan Reed (M.S. Geography) **completed July 2011**
- o Kristie Socia (M.S. Geography) **completed May 2011**
- o Carolyn Fish (M.S. Geography), **completed May 2010**
- o Almaz Naizghi (M.S. Geography), **completed August 2010**

Committee Member:

- o Tanita Suepa (Ph.D. Geography)
- o Michael Linacre (M.S. Geography)
- o Sterling Raecht (M.S. Geography)
- o David Baylis (Ph.D. Geography)
- o Jordan Howell (Ph.D. Geography)

PREVIOUS COURSES: UCSB

- Cartographic Design, Winter Quarter, 2006, Fall Quarter, 2006
- GeoVisualization, Spring Quarter, 2006
- UCSB SPACE Workshops, Summer, 2007
- Teaching Assistant, UCSB Department of Geography
-

GUEST LECTURES: MSU

- Journalism 203, Fall Semester 2010, Journalism and GIS
- Geography 410, Fall Semester 2009, Mapping Our Local Food Environment
- Journalism 303, Spring Semester 2009, What is GIS?
- Journalism 303, Fall Semester 2008, GIS for Journalism.
- Geography 221, Fall Semester 2007, Introduction to Cartography.

SERVICE AND OUTREACH

MSU

- MSU Freshman Seminar Abroad, Instructor, (2010), North Island New Zealand
- MSU Academic Council, elected representative, College of Social Science (2009 -)

- MSU Faculty Council, elected representative, College of Social Science (2009 -)
- MSU Department of Geography, Web Czar (2009 -)
- MSU Department of Geography Graduate Issues Committee (2008-2009)
- MSU Department of Geography Search Committee, Hydroclimatology (2008-2009)

Outreach

- American Association of Geographers Cartography Specialty Group, Academic Director, Elected April 2010
- American Association of Geographers Cartography Specialty Group, Judge, Student Paper Competition, April 2010
- Michigan Department of Community Health: Certificate of Need Seminar, October 27, 2009; *E-Maps for the MDCH*
- Tri-County Food Systems Meeting, September 21, 2009; *Mapping the Local Food Environment*
- Michigan Department of Community Health: Lansing, MI, September 9, 2009; *Food Deserts Webinar*
- Michigan Department of Community Health: Certificate of Need Seminar, November 13, 2008; *Mapping for the MDCH*

Professional

- Journal Reviewer: International Journal of Geographic Information Science, Spatial Cognition and Computation, Cartography and Geographic Information Science, Cartographica, Journal of Historical Geography

PROFESSIONAL EXPERIENCE

- Design Consultant, DeLorme Mapping, Yarmouth, ME, Winter 2002, Summer 2003. Helped initiate and lead the redesign of the cartography now featured in Delorme's most popular software releases, Street Atlas USA and TopoUSA. Aided in the design of Delorme's first GIS product. Please visit www.delorme.com for more information.
- Lead Quality Assurance Analyst, DeLorme Mapping, Yarmouth, ME, October 2000 – September 2002. Responsible for designing, implementing, and carrying out automated and manual software testing. Determined the suitability for public use and release to market dates. Oversaw development and release of products including: XMap Geographic, XMap 3.0, and XMap Business.
- GIS Analyst, Michael Baker Jr. Inc., Alexandria, VA, January 2000 – October 2000. Responsible for integrating and compiling GIS data for FEMA's National Flood Insurance Program. Assisted production by converting data sets between platforms and projections as well as practicing traditional cartographic and drafting techniques. Regularly used GIS including: ArcInfo 7 & 8, ArcMap, ArcView 3.2, AutoCad 14, MGE, and Microstation. Gained experience with MS Access, AML, and Adobe Illustrator.