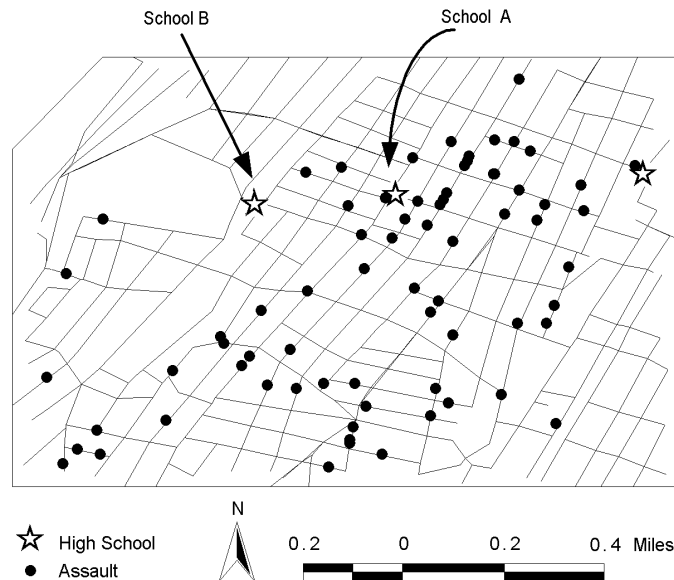


# GEOSPATIAL TECHNOLOGIES AND SOCIETY

GEOG 412

Department of Geography  
Fall 2015



Profs. Tom Bassett and Sara McLafferty  
 bassett@illinois.edu and smclaff@illinois.edu  
 Tues. 11:00-12:20, 113 DAV; Thurs, 11:00-12:20, 338 DAV

This course examines the development of geospatial technologies (GT) and their use in the analysis of social, economic, and environmental change. We explore how digital geographic information is created and used, how new geographic technologies like GPS are influencing human behaviors and spatial interactions; critical cartography and participatory GIS; the roles of GT and mapping in land use and resource conflicts; issues of privacy, surveillance and data linkage; and planning and policy making. The focus of course readings and discussions will be on the use of geospatial technologies by a wide range of actors with an emphasis on the production of new spaces of intervention and understanding. Applications in areas such as rural development, environmental justice, indigenous land claims, crime and health will be discussed.

**Readings:** On the COMPASS web site for the course.

## Course Requirements:

|                             |     |
|-----------------------------|-----|
| Weekly commentaries         | 40% |
| Term paper/project          | 25% |
| Class presentation of paper | 5%  |
| Lead class session          | 5%  |
| Class participation         | 10% |
| Labs                        | 15% |

### **Weekly Commentaries**

Each week students are to write a short commentary (1-2 pages) on the assigned readings. These commentaries will be due by 5:00 p.m. on Monday and should be posted to the COMPASS web site for the class. Commentaries should **not** be a simple summary of the main points of the reading. The strongest commentaries will convey a critical reading of the material and advance our understanding of it. You might discuss an idea, question, or contradiction that emerges from the week's readings with which you agree, disagree or wish to further explore. You should support your view with evidence from the reading or other readings. As the semester progresses, you should be able to refer to previous course readings to enrich your argument. Each student should read other students' postings prior to class. These commentaries will serve as a point of departure for our weekly discussions.

### **Term Paper**

Students are to write a term paper, approximately 10-15 pages in length, that examines a Geospatial Technology and Society topic that has emerged from course readings and discussions, or which forms the basis of student thesis work. The term paper will involve examining a geospatial technology product, deployment, or controversy and critiquing it from a GT and Society perspective. More information on content and style will be distributed in class.

### **Class Discussant**

Each student will be responsible for orally presenting the main points of the readings for one week. The goal is to summarize the main research questions and findings of the readings, and to focus class discussion around issues that emerge from the readings.

## **Class Schedule and Readings**

### Week 1 (8/25) General Background

### Week 2 (9/1): Critical Cartography I

Wood, D. 2010. Maps blossom in the springtime of the State. In *Rethinking the Power of Maps* (New York: Guilford), pp. 15-38.

Harley, J. B. (1988, 2001) Maps, Knowledge and Power. In P. Laxton (Ed.) *The New Nature of Maps*, (Baltimore: Johns Hopkins University Press), pp. 51-81.

### Week 3 (9/8): Critical Cartography II

Harley, J.B. (1989, 2011 ) Deconstructing the Map. In P. Laxton (Ed.) *The New Nature of Maps*, (Baltimore: Johns Hopkins University Press), pp. 149-168.

Kitchen R. and M. Dodge (2007). Rethinking Maps. *Progress in Human Geography*, 31(3):331-344.

#### Week 4 (9/15): GIS Debates and Social Theory

Elwood, S. (2010). Geographic Information Science: emerging research on the societal implications of the geospatial web. *Progress in Human Geography*, 34(3): 349-57..

Goodchild M (1995) Geographic information systems and research. In J. Pickles, ed, *Ground Truth: The Social Implications of Geographic Information Systems*, 31-50. New York: Guilford.

Schuurman, N. 2009. An interview with Michael Goodchild. *Environment and Planning D: Society and Space*, 27 (4): 571-80

St. Martin, K. and Wing, J. (2007) The discourse and discipline of GIS. *Cartographica*, 42(3):235-248.

#### Week 5 (9/22): GIS in Everyday Life

Adams P. (1995) A reconsideration of personal boundaries in space-time. *Annals of the Association of American Geographers*, 85(2), 267-85.

Proppen, A. (2006) Critical GPS: Toward a new politics of location. *ACME*, 4(1):131-144.

Wilson, M. 2012. Location-based services, conspicuous mobility, and the location-aware future. *Geoforum*, 43, 1266-1275.

#### Week 6 (9/29): GIS and Feminism:

Kwan, M (2002) Feminist visualization: re-envisioning GIS as a method in feminist geographic research. *Annals of the Association of American Geographers*, 92:645-661.

Leszczynski, A., Elwood, S. 2014. Feminist geographies of new social media. *Canadian Geographer*, 1-17. DOI: 10.1111/cag.12093

McLafferty S (2002) Mapping women's worlds: Knowledge, power and the bounds of GIS. *Gender, Place and Culture*, 9(3):263-269.

Rocheleau D, Thomas-Slayter B, Edmunds D (1995) Gendered resource mapping: Focusing women's spaces in the landscape. *Cultural Survival Quarterly*, Winter:62-68.

#### Week 7 (10/6) : The Nature(s) of Maps

Wood, D. and J. Fels (2008). The natures of maps: cartographic construction of the natural world. *Cartographica*, 43(3):189-202.

Perkins, C. (2008). Wood(s) and tress – (re)posting nature. *Cartographica*, 43(3), 203-206.

Eades, G. (2008). Myth, artifice, nets. *Cartographica*, 43(3), 207-220.

Kitchen, R. (2008). The practices of mapping. *Cartographica*, 43(3), 211-215.

### Week 8 (10/13): Counter-Mapping

Peluso, N. 1995. Whose woods are these? Counter-mapping Forest Territories in Kalimantan, Indonesia, *Antipode* 27(4): 383-388.

J. Bryan, 2011. Walking the line: Participatory mapping, indigenous rights, and neoliberalism. *Geoforum* 42(1): 40-50.

J. Walsh, 2013. Remapping the Border: Geospatial technologies and border activism. *Environment and Planning D: Society and Space* 31: 969 – 987.

### Week 9 (10/20): Participatory GIS: and Volunteered Geographic Information

Aribas-Bell, D. 2014. Accidental, open and everywhere: Emerging data sources for the understanding of cities. *Applied Geography*, 49, 45-53.

Beyer, K., Comstock, S., Seagren, R. 2010. Disease maps as context for community mapping: A methodological approach for linking confidential health information with local geographical knowledge for community health research. *Journal of Community Health*, 35, 635-644.

Elwood, S. 2006 Negotiating knowledge production: The everyday inclusions, exclusions and contradictions of participatory GIS research. *Professional Geographer*, 58(2), 197-208.

Shelton, T., Poorthuis, A., Graham, M., Zook, M. 2014. Mapping the data shadows of Hurricane Sandy: Uncovering the sociospatial dimensions of 'big data'. *Geoforum*, 52, 167-179.

### Week 10 (10/27): Qualitative GIS

Begheri, N. 2014. What qualitative GIS maps tell and don't tell: insights from mapping women in Tehran's public spaces. *Journal of Cultural Geography*, 31:2, 166-178.

Cope & Knigge 2006. Grounded visualization: integrating the analysis of qualitative and quantitative data through grounded theory and visualization. *Environment and Planning A*, 38, 2021-2037.

Pavlovskaya, M. 2009. Non-quantitative GIS. In *Qualitative GIS: A Mixed Methods Approach*. Eds, M. Cope & S. Elwood, pp. 13-33.

### Week 11 (11/3): Analyzing Crime and Health with GIS

Maantay, J. 2007. Asthma and air pollution in the Bronx: Methodologic and data considerations in using GIS in environmental justice and health research. *Health and Place*, 13:32-56.

Crutcher, M., Zook, M.A. 2009. Placemarks and waterlines: Racialized cyberscapes in past-Katrina Google Earth. *Geoforum*, 40(4), 523-534.

Singleton, A., Brundson, C. 2014. Escaping the pushpin paradigm in geographic information science: (re)presenting national crime data. *Area*, 46, 294-304.

#### Week 12 (11/10): GIS and Environmental Change Analysis

Robbins, P. 2003. Fixed Categories in a Portable Landscape: The Causes and Consequences of Land Cover Categorization. In K. Zimmerer and T. Bassett (Eds.) *Political Ecology: An Integrative Approach to Geography and Environment-Development Studies* (New York: Guilford), 181-200

Harris, L. and H. Hazen 2009. Rethinking maps from a more-than-human perspective: nature-society, mapping and conservation territories. In M. Dodge, R. Kitchin, and C. Perkins (eds.) *Rethinking maps: New frontiers in cartographic theory* (New York: Routledge);, pp. 50-67.

Turner, M. 2003. Methodological Reflections on the Use of Remote Sensing and GIS in Human Ecological Research. *Human Ecology* 31(2): 255-279.

#### Week 13 (11/17) GIS, Territory, and the State

Tania Murray Li. 2014. What is land? Assembling a resource for global investment. *Transactions of the Institute of British Geographers* 39: 589–602

Rose-Redwood, R. 2006. Governmentality, Geography, and the Geo-coded World. *Progress in Human Geography* 30(4): 469-86

Wainwright, J. and J. Bryan. 2009. Cartography, territory, property: postcolonial reflections on the indigenous counter-mapping in Nicaragua and Belize. *Cultural Geographies* 16 (2): 153-78.

#### Weeks 14 and 15 (12/1, 12/3 and 12/8) Student presentations