Spring 4-1-2009

Geography 734: GIS and Society

Rina Ghose

University of Wisconsin - Milwaukee

Follow this and additional works at: https://scholarworks.umass.edu/esence

Part of the Geographic Information Sciences Commons

Recommended Citation


This Syllabus is brought to you for free and open access by the Science, Technology and Society Initiative at ScholarWorks@UMass Amherst. It has been accepted for inclusion in Ethics in Science and Engineering National Clearinghouse by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.
COURSE OBJECTIVE: Geographic Information Systems (GIS) is widely used in a range of disciplines, and in public and private sector. Due to its popularity, it is a multi-billion dollar global business. In order to be proficient in it, one not only needs to understand the technology, but also the science behind the technology. This course explores a primary research agenda in GIScience, that of GIS and Society. This research agenda explores the interconnected relationship between the society and GIS, and explores the implications and impacts of such a relationship.

Within the GIS and Society body of literature (as highlighted by the University Consortium of Geographic Information Science), the following questions have been raised:

In what ways will GIS actually affect and alter the society it is intended to represent and serve? How can various conceptions and representations of space, not based on traditional map formats or geometric views, be embedded within a GIS? Is GIS more appropriate for some cultures than others? Can GIS be developed to reflect complex and ambiguous perceptions of social and physical space? How will GIS affect the relationships among and within government agencies, and between them and the various citizen groups concerned with the environment, property rights, and advocating the needs of local communities? What are the interpersonal implications of GIS? Can GIS provide citizens with an increased ability to monitor and hold government accountable for proposals and actions? Will GIS provide citizens with an understanding of their rights and interests in land? How accessible will spatial data and related GIS analysis tools be to all parts of society? Can GIS be used to increase participation in public decision making? (http://www.ucgis.org).

This course aims to answer some of these questions and intends to create a critical awareness of the hidden implications within GIS technology. This course is organized as a seminar, with weekly readings and reflection papers.

ASSIGNMENTS & COURSE EVALUATION:
• Regular participation and in class discussion: 20 points total. 1 points will be deducted with every absence
  Meaningful participation is expected every week from students. To do this, students must come to class having critically read that week’s scheduled reading and undertake informed discussions. I will keep weekly logs of each student’s
participation. I will also qualitatively evaluate the participation quality of each student and keep weekly records accordingly.

- **Four reflective papers: 20 points each, 80 points.** The paper should be five pages long, double spaced (point 12 font size), with an inch margin all around. Each paper should aim to discuss readings allocated for one week. The paper should be reflective in nature. What are the key points of each article that you have read? What are its merits and demerits? It is not necessary for you to summarize each article, but rather critically reflect on each article. You should try to equitably address all the papers that are you are discussing in your paper – i.e. do not over emphasize one article, and provide a brief discussion of another article. Your writing style is important, papers should be written in an academic style, and you can cite a paper by using the author, date, text method (Ghose 2003, p.14). Provide a bibliography at the end of each paper so that I can see which papers you are discussing. 
  Points will be deducted for late submission (2 point deduction per late day).

**Grade:** The percentage necessary to receive certain grades will be no higher than the following: 88% (A-), 78% (B-), 68% (C-), 58% (D-)

**WEEKLY SCHEDULE & READINGS**
Weekly readings are assigned below. To facilitate discussion, readings must be completed prior to the appropriate session. The outline may be subject to change (with advance warning) so please assume responsibility for keeping up with classroom announcements.

**Week 1, 1/29**
**Evolution of GIS and Society Research Agenda**


**Week 2, 2/5**
**The Technocratic Nature of GIS**


**Week 3, 2/12**  
**GIS and Ethics**  


**Week 4, 2/19**  
**GIS and Privacy**  


**First paper is due on 2/26/08**

**Week 5, 2/26**  
**GIS and Democracy**  


**Week 6, 3/4**

**GIS Implementation, Use in Urban Planning**


**Week 7, 3/11**

**Digital Divide and Public Participation GIS**


**Week 8 – Spring Break**

**Week 9, 3/25**

**Public Participation GIS in Urban Context**


Second Paper is due on 4/1/08

**Week 10, 4/1**

**Complexities in GIS Usage**


**Week 11, 4/8**

**Social Construction of GIS, GIS and Ontology**


Class will be held on Week 12 – study the readings allocated for week 13
Third paper is due on 4/22/08

**Week 12, 4/15**  
**Actors-Networks in GIS**  


**Week 13, 4/22**  
**GIS and Methods**  


**Week 14, 4/29**  
**GIS and Feminist Theory**  


**Week 15, 5/2**  


Finals Week: What have we learnt?

Fourth paper is due on 5/13/08