Course Overview

This seminar explores the relationship between cities, place, and technology. It is a seminar class that affords the opportunity for in-depth examination of the opportunities and limitations of established and emerging technological tools including crowdsourcing and community mapping websites, participatory GIS methods, location-based apps and social media, e-government and digital participation, regional scenario planning tools, 3D visualization and analysis of the built environment, spatial analytical methods, among other technological tools. The class emphasizes both spatial analytical capabilities and enhanced opportunities for participation. Readings incorporate multiple perspectives on use and future developments in information and communication technologies.

This course provides the opportunity to “disassemble” and critically analyze the use of these tools. Students will propose new or improved analytical and participatory tools for city and regional planning. Alternatively, students can critically examine an aspect of technology or spatial methods related to city planning.
Prerequisites

A working knowledge of geographic information systems and information and communication technology is useful, but not required. The only prerequisite is a strong interest in the role of technology in the practice of planning and in the shaping of cities.

Course Format

This course is a seminar. All participants are expected to prepare for class and actively contribute to class discussions.

Learning Objectives

This course has the following learning objectives:

- Support student generated research on the social shaping of technology, cities, and planning;
- Supporting creative and analytical thought about the role and development of tools in planning;
- Familiarity with a broad range of tools and spatial analytical methods that can augment the practice of planning.

This course fulfills the following planning accreditation learning objectives, emphasizing the connections between information and communication technologies and the following:

- Planning Theory: appreciation of the behaviors and structures available to bring about sound planning outcomes.
- The Future: understanding of the relationships between past, present, and future in planning domains, as well as the potential for methods of design, analysis, and intervention to influence the future.
- Research: tools for assembling and analyzing ideas and information from prior practice and scholarship, and from primary and secondary sources.
- Written, Oral and Graphic Communication: ability to prepare clear, accurate and compelling text, graphics and maps for use in documents and presentations.
- Quantitative and Qualitative Methods: data collection, analysis and modeling tools for forecasting, policy analysis, and design of projects and plans.
- Leadership: tools for attention, formation, strategic decision-making, team building, and organizational/community motivation.
- Governance and Participation: appreciation of the roles of officials, stakeholders, and community members in planned change.
- Social Justice: appreciation of equity concerns in planning.
Recommended books include:


Course readings will be made available through Blackboard and/or placed on library reserve.

**Evaluation**

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<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
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<tr>
<td>Mini-assignments</td>
<td>15%</td>
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<td>Lead Discussion</td>
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<tr>
<td>Midterm Project</td>
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<tr>
<td>Final Paper - Draft Journal article or proposal</td>
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<tr>
<td>Final Tech Talk</td>
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<tr>
<td>Class Participation</td>
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**Policies**

Laptops - You may bring a laptop to class; however, do not use for unrelated e-mail checking, social media, or other irrelevant and distracting tasks.

Attendance – You are expected to be in class and participate. In the event of an illness or family emergency, you must send an e-mail indicating the reason for your absence. Absences will affect your grade. More than two unexcused absences will result in a failing grade.

Academic Integrity – Your work must be your own. When you use a map, photograph, or diagram from another source or when you quote text, you must provide a reference to the artist or author. All of your work should be consistent with Cornell’s Code of Academic Integrity, available here: [http://cuinfo.cornell.edu/Academic/AIC.html](http://cuinfo.cornell.edu/Academic/AIC.html).

Note to students with disabilities: If you have a disability-related need for reasonable academic adjustments in this course, please provide the instructor with an accommodation notification letter from Student Disability Services as soon as possible. A notification letter should be provided within the first two weeks of the semester or from the occurrence of an injury or illness. I would like to invite you to set up a meeting with me to discuss needed accommodations in a confidential environment. If you have not done so already, I encourage you to meet with Student Disability Services for disability verification and determination of reasonable accommodations.
Tentative Course Schedule

The contents of this syllabus may shift throughout the semester to enhance class learning objectives and outcomes. If changes are made in the readings or assignments, this information will be communicated as early as possible.

January 22
Week 1 - Class Overview; Analytical and Participatory; Academic and Entrepreneurial
No readings due. Discuss joint classroom objectives.

January 29
Week 2 – Technology and the Space of Flows; Cities as Technological Artifacts
Mini-assignment due in class: Bring a powerpoint to share in class with at least 3 images (and limited, if any text) that are connected to your own reflections or hypotheses about the role of technology in cities and/or urban planning. This is meant to be a fun, creative, and informal exercise in class.


Outside of class - Friday, January 31st at 12:20 in Kaufman Auditorium

Attend Laxmi Ramasubramanian’s lecture Governance in the Age of Big Data: Spatial Citizenship and the Future of Planning. If possible, plan to attend the discussion session afterwards.

February 5
Week 3 - Smart Cities

February 12
Week 4 - E-government, Open Government

Mini-assignment due in class: (See blackboard).


February 19
Week 5 - Mobile Devices, Apps, Sense of Place; Social Media and Social Networks

One paragraph proposal due for midterm and final project.

de Souza de Silva, Adriana and Jordan Frith. Chapters 1 and 2 in Mobile Interfaces in Public Spaces. P. 25-74.


February 26
Week 6 – More on Crowdsourcing and Citizen Science

Virtual Guest Speaker: Nader Afzalan, GIS instructor and Ph.D. candidate at University of Colorado and vice-chair of the American Planning Association-Technology Division.

Mini-assignment due: Go through the list of award-winning planning-related websites. What sites do you find most important and compelling? Are there sites you feel are missing from the list? What should future sites look like? Two pages double or single spaced.
Read:
Townsend, Anthony. “A Planet of Civic Laboratories” in *Smart Cities: Big Data, Civic Hacker, and the Quest for the New Utopia*.


“Combining crowdsourcing and google street view to identify street-level accessibility problems” CHI 2013, April 27 – May 2, 2013, Paris, France.


March 5
Week 7 - Digital Histories; Analysis and Interpretation of Urban Landscapes


See Blackboard for sites to visit.

March 12
Week 8 –The Power of Maps; Participatory and Critical GIS

*Midterm Project Due*


Optional Readings:

Optional:


*Tuesday, March 18 at 2:55 pm*

*Attend Envision Tomorrow demonstration in Sibley 301.*

Wednesday, March 19

Week 9 - Community Visualization, Scenario Planning and Decision Support Tools Part I

*Virtual Guest Speaker: Brad Barnett, PlaceMatters.*

*Mini-assignment due (see Blackboard for instructions)*

Readings due:


Additional websites posted on blackboard.

*March 26*
Week 10 – Scenario Software Continued; 3D Visualization and Analytics

In Class: Virtual Guest Speaker: Garlynn Woodsong, Calthorpe Associates to talk about regional scenario planning and the open source tools Urban Footprint and Rapid Fire.


City Engine materials posted on Blackboard.

Optional:


Spring Break

April 9
Week 11 – Surveillance and Digital Divides

Mini-assignment due (see Blackboard for instructions)

Guest Speakers: Eric Brady and Kimberly Baptiste from Bergmann Associates to talk about the use of 3D in professional practice.


de Souza de Silva, Adriana and Jordan Frith. Chapters 4 and 5 in Mobile Interfaces in Public Spaces. P. 25-74. P. 111-158.

Pew Who’s Not Online and Why

Digital Differences
Anonymity Online
http://pewinternet.org/Reports/2013/Anonymity-online.aspx

Eyes of Glass?

April 16
Week 12 – Serious Games and Augmented Deliberation


Poplin, Alenka. “Playful public participation in urban planning: A case study for online serious games.”


Eric Gordon and Edith Manosevitch. “Augmented deliberation: Merging physical and virtual interaction to engage communities in urban planning” New Media & Society February 2011 vol. 13 no. 1 75-95.

April 23
Week 13 – Statistical and Predictive Powers of GIS

Mini-assignment due (see Blackboard for instructions)


April 30
Week 14 – Spatial Analysis continued;
Google Glass, Driverless Cars, 3D GIS, and Further Speculation on the Future of Cities and Urban Planning

Agent-based modeling of urban land-use development, case study: Simulating future scenarios of Qazvin city.

Green, Nick. “A policymaker’s puzzle, or How to cross the boundary from agent-based model to land use policymaking” in Transactions of the Institute of British Geographers, 38. 1. 2013.


May 7
Week 15
Last Class – Tech Talks.

Assignments

Mini-Assignments
There will be small, frequent exercises (mostly due every other week) that are intended to help you reflect on the readings and prepare for class.

Facilitation of Class Discussion
A student will be assigned to facilitate a discussion of the readings each week. Plan on providing an overview of the readings, describing the connections and interesting concept you have identified in them. Then bring questions for all to discuss.

Midterm Project
Your midterm project will consist of a preliminary literature review on a technological issue, movement, or tool of your choice. The literature review and discussion should be approximately 7-10 pages.

Final Project
The final project will consist of either a draft journal article or a technology proposal. For a draft journal article, you must prepare your paper according to guidelines for submitting manuscripts. This means that citations should follow that of the journal.
If you elect to do a technology proposal, then it may contain or be in the form of a grant proposal.

The manuscript or technology proposal should be at least 20 pages.

Acknowledgements

I am indebted to Gerald Sussman, Michael Holleran, Robert Paterson, Bjorn Sletto, Barbara Brown Wilson, Elizabeth Mueller, and Steven Moore. Their work and advice over the years greatly contributed to the development of this class. Thanks are also due to the guest speakers and to my teaching assistant, who will have also contributed much to this course by its end.