Cornell University
College of Architecture, Art, and Planning
Department of City and Regional Planning

Spring 2016
CRP 5850: Cities, Place, Technology

Pavilion Zero - Expo Milano 2015. Photo by Simone Bosotti on Flickr (cc)

Instructor: Jennifer Minner, PhD
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Class Day and Time:
Mondays, 4:30 pm – 7:00 pm
January 27 - May 9, 2016
Class Location: Sibley Hall Room 115
Office location: 214 W. Sibley Hall
Office hours: Mondays 2-3, Thursdays 10 – noon.

Graduate Teaching and Research Specialist: Nico Azel
Office hours by appointment
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Course Overview
This seminar explores technology through the lens of multiple perspectives from popular culture, to Science and Technology Studies (STS), to critical perspectives, to other pragmatic and theoretical approaches within and outside the boundaries of city and regional planning.

We focus on many of the analytical and participatory aspects of information and communication technologies in the course. This includes crowdsourcing and community mapping tools, 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. In addition, we take a more expansive view of technological artifacts including the city itself as technology.

We will “disassemble” and critically analyze technology in the context of planning. Then, we will create technology proposals and recommendations. Participants will work on final projects that: 1) critically investigate a technological trend or artifact of their choice and how it intersects with planning or 2) propose a new technological tool.

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;
- Support creative and analytical thought about the role and development of tools in planning;
- Familiarize students 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 technology 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.

Texts
Required book (also on reserve at the Fine Arts library):


Optional, recommended books:


Additional course readings will be made available through Blackboard.

Evaluation

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<tr>
<th>Activity</th>
<th>Percentage</th>
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<tr>
<td>Lead a Discussion</td>
<td>20%</td>
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<tr>
<td>Mini Acts of Preparation</td>
<td>20%</td>
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<tr>
<td>Book Review</td>
<td>20%</td>
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<tr>
<td>Final Paper and Tech Talk</td>
<td>30%</td>
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<tr>
<td>Participation</td>
<td>10%</td>
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Policies

Laptops and Tablets - You may bring a laptop or tablet to class; however, do not use it for unrelated e-mail checking, social media, or other distracting activities. We may use laptops for engaged learning opportunities; however, laptops may not be used while guest speakers visit the classroom in person or via Skype.

Attendance – You are expected to be in class and participate. Attendance is mandatory and absences will affect your grade. For every class you miss, 10% will be deducted from your class participation grade. In the event of an illness or family emergency, you should send an e-mail indicating the reason for your absence. You are also expected to actively participate in class activities.

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.

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.

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.

February 1 - Class Overview; Critical, Celebratory and Entrepreneurial Approaches to Technology


February 8 – E-government, Open Government, Government Dashboards

Guest Speaker: Maximilian Heimstädt, visiting PhD student from the Department for Organization Studies at Freie Universität Berlin

Readings due for class:

- Rob Kitchin, Tracey P. Lauriault & Gavin McArdle (2015) Knowing and governing cities through urban indicators, city benchmarking and real-time dashboards, Regional Studies, Regional Science, 2:1, 6-28, DOI: 10.1080/21681376.2014.983149

Due: Selection of book to review, sign up for week to talk about book review.

Mini act of preparation #1 due: From outside the readings, bring a particularly interesting open data or open government website.

February 15 – NO CLASS WINTER BREAK
February 22 – Mobile Devices, Apps, Sense of Place; Social Media and Social Networks

Virtual Guest Speaker: Christine Ma, Cornell Alum (’15)

Readings due for class:

- de Souza de Silva, Adriana and Jordan Frith. Chapters 1 and 2 in *Mobile Interfaces in Public Spaces*. P. 25-74.
  
  http://www.planetizen.com/node/66853
  http://www.knightdigitalmediacenter.org/blogs/agahran/2015/01/text-enabled-community-engagement-textizen-ramps

*Mini act of preparation #2 due by class time*: Bring a powerpoint slide or slides that show screenshots of a favorite app that relates to public space.

February 29 - Digital Divides and Urban Fragmentation

Readings due:

- Anonymity Online: [http://pewinternet.org/Reports/2013/Anonymity-online.aspx](http://pewinternet.org/Reports/2013/Anonymity-online.aspx)

*Mini act of preparation #3 due by class time*: See blackboard for instructions.

March 7 – Crowdsourcing and Citizen Science

Readings due:

Mini act of preparation #4 due by class time: Select a particularly interesting example of citizen science that has potential application in urban planning.

March 14 – The Power of Maps and Crowdsourcing Continued

Readings due:


By class time: 1 page proposal due for final Journal article or Technology Proposal.

March 21 – Seeing and Surveillance

Readings Due:

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

Mini act of preparation #5 due by class time: See blackboard for instructions.

March 28 - no classes – Spring Break

April 4
Week 8 – Serious Games

Virtual Guest Speaker: Kushan Dave, Cornell Alum (’15)

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

**Mini act of preparation #6 due by class time:** See blackboard for instructions.

April 11 – Visualizing Alternate Future Scenarios

Virtual Guest Speakers: Thomas Hilde and Marla Torrado, doctoral students at the University of Texas at Austin.

Readings due:


**Mini act of preparation #7 due by class time:** See blackboard for instructions.

April 18 – Visualization, 3D Modeling, and Virtual Reality

Virtual Guest Speaker: Eric Brady, Bergmann Associates

Readings due:

• Minner, Jennifer and Chusid, Jeff. Reconnecting Architecture and Geography with the Dimension of Time: 3D GIS for Cultural Landscapes and Historic Districts.

**Mini act of preparation #8 due by class time:** See blackboard for instructions.

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### April 25 – Urban Models and the Statistical Power of Planning

**Readings due:**

- Green, Nick. (2013). “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).

**Mini act of preparation #9 due by class time:** See blackboard for instructions.

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### May 2 – Smart Cities, Autonomous Cars, and Further Speculation on the Future of Technology

**Readings due:**


**Mini act of preparation #10 due by class time:** See blackboard for instructions.
About Course Assignments

Weekly act of preparation
There will be weekly acts of preparation to help you 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. Use a powerpoint presentation to create image-heavy slides to illustrate your main points.

Book Review
You will read 1 book related to technology, planning and cities. Then you will present the main points to class. You will turn in a 2-3 page single spaced review of the book.

Final draft Journal Article or Technology Proposal
The final paper 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 and format should follow the requirements of the journal. The last day of class, you will present a “Tech Talk” on your topic.

Credit options:
- For 1 credit: Must attend classes and participate; facilitate a class discussion; and participate in weekly thought experiments (skipping the proposal for final paper).
- For 2 credits: Everything for 1 credit + Book Review assignment.
- For 3 credits: All assignments.

Potential Books to Review


