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### Syllabus for URBP 787.41 Seminar on Public Participation and GIS Fall 2012

Laxmi Ramasubramanian  
*CUNY Hunter College*

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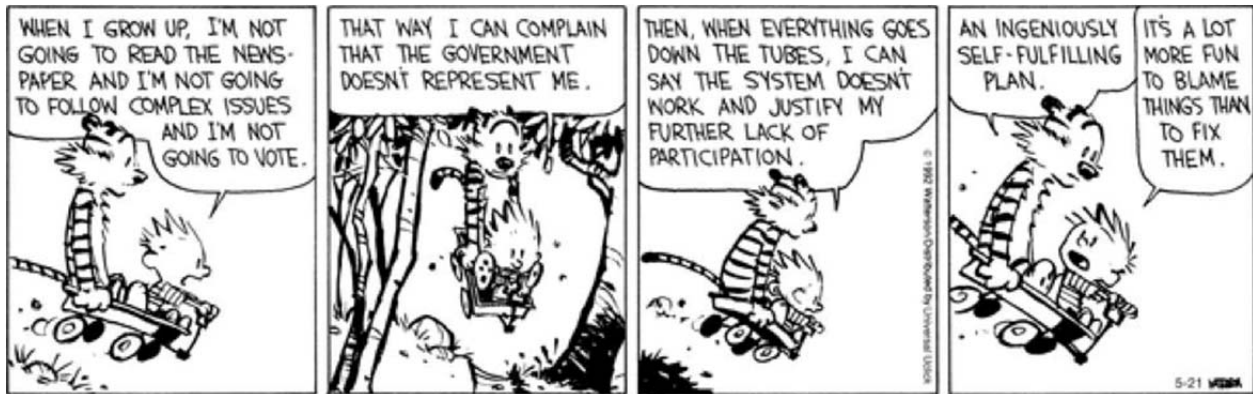
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## Seminar on Public Participation and GIS 787.41 (5225)

Instructor: Prof. Laxmi Ramasubramanian, PhD., AICP  
 Class meets: Wednesdays, 5.35 PM to 7.35 PM in Room 606 HW  
 My Office: Room 1645 HW  
 Email: [laxmi@hunter.cuny.edu](mailto:laxmi@hunter.cuny.edu)  
 Office Hours: Before class or by appointment



### Course Description

This course is intended for those students who have an interest in using GI technologies to facilitate participatory planning and community development. It will provide a critical understanding of how public participation and engagement using digital technologies can facilitate and enhance substantive and procedural aspects of urban governance. It will also explore how governmental and non-governmental actors can use digital technologies to increase opportunities for citizen involvement. The sustainability of these initiatives, including an assessment of the technical and institutional constraints to achieving transparent and open governance will also be investigated. Students will learn how to conduct technological needs assessments/plans for organizations and recommend implementation strategies to address organizational and societal goals related to e-democracy.

### Learning Goals and Objectives

This is a seminar class. The class meets once a week. While I will come prepared to provide overview lectures, structure the discussions, and clarify key concepts, each student is expected to be actively engaged and take some personal responsibility for their learning. Therefore, each week, one (or two) students will be assigned the task of facilitating discussions about the readings. In addition, because the field is changing rapidly, students will be expected to review software applications that are available online. By the end of the semester, students are expected to be able to think critically about the inter-linkages between technological factors and societal/political factors that shape the adoption and use of digital technologies for urban planning/design.

### Final Paper/Project

A sizable proportion of the course grade is based on a final project or term paper. In either case, the work is intended to be a serious exploration into a particular topic related to your individual interest and your career goals. It should become part of your portfolio. Additional details and guidelines will be provided.

#### Option 1:

An applied GIS project: Here you are expected to serve a client group/organization to collect, assemble, and analyze spatial data. The caveat here is that your work must involve public participation in some way – i.e., providing opportunities for non-technical users to engage with the data and information and help shape the outcomes. Small team projects (no more than 3 people) may be proposed but individual projects are encouraged. Grading is individually determined, even if they are team projects.

## Option 2:

Research Paper: You are expected to write a scholarly journal article designed to be submitted for publication. Part of your task will be to identify the particular journal/publication, review the guidelines and tailor your paper accordingly. General paper length should be 6000 words. You will be expected to submit the paper to the journal/publication for review.

## Required Textbook

Ramasubramanian, L. 2010. Geographic Information Science and Public Participation. Heidelberg, Germany: Springer-Verlag [The book is available as an e-book through the Hunter library]

Additional readings are listed in the syllabus and can be accessed through BlackBoard and in some instances directly through the Hunter library or online

**Please contact me if you want suggestions for articles or books on any of the topics we plan to cover in the course.**

## Grading Scheme

1. Attendance and Class Participation	25%
2. Leading Discussions/Written summaries posted on BB	10% [one session]
3. Take-home Mid Term Exam	15% [short essay]
4. Research Paper or Applied GIS project	50% [graded in phases]

## University Policies

University policies and procedures will be followed to address issues related to accommodation for disabilities, religious observations, dealing with discriminatory conduct, sexual harassment and other related matters. In general, if you need special accommodation to meet any of the requirements of this course, you must see the instructor during the first week of classes. "Hunter College regards acts of academic dishonesty (e.g., plagiarism, cheating on examinations, obtaining unfair advantage, and falsification of records and official documents) as serious offenses against the values of intellectual honesty. The college is committed to enforcing the CUNY Policy on Academic Integrity and it will pursue cases of academic dishonesty according to the Hunter College Academic Integrity Procedures" (Syllabus Statement approved by Hunter College Senate 5/11/2005).

In compliance with the American Disability Act of 1990 (ADA) and with Section 504 of the Rehabilitation Act of 1973, Hunter College is committed to ensuring educational parity and accommodations for all students with documented disabilities and/or medical conditions. It is recommended that all students with documented disabilities (Emotional, Medical, Physical and/ or Learning) consult the Office of AccessABILITY located in Room E1214B to secure necessary academic accommodations. For further information and assistance please call (212- 772- 4857) or go to:

<http://www.hunter.cuny.edu/student-services/access>

## A Comment on GIS Training and Preparation

This is a seminar class – we are not going to be spending time learning how to use ArcGIS. If your goal was to learn how to use ArcGIS in this class, you are in the wrong class. Sign up for GTECH 710 instead.

If you have taken some GIS or have played around with the program and want to refresh your memory or review improvements in ArcGIS 10, I encourage you to follow the procedure outlined below:

- Create an ESRI user account: <http://training.esri.com>
- Review the course offerings, select one or two courses that are of interest.
- I recommend: **Learning ArcGIS Desktop for ArcGIS 10** [8 modules]  
Write to Mr. Thomas Walter - [twalter@hunter.cuny.edu] and request course codes  
Tell him that you are signed up for this class, and specify the course name you want to access. Tom will generate the codes for you and send you an e-mail. Once you have the code, log into the ESRI training site, enter the code so that you can access the content for free. This is one of the perks of being a Hunter student, so take advantage of it.

If you are confident about using basic GIS operations and want to explore non-ESRI options, I suggest CartoDB. Create an account and start exploring. <http://cartodb.com/>

Mac Users may want to explore Diva GIS that can be configured to run on the Mac OS.  
<http://www.diva-gis.org/>

### **Overview of Topics/Dates**

1. August 29                      Course Overview: Planning and/or with Digital Technologies
2. September 5                  Empowerment, Marginalization, and PPGIS
3. September 12                PPGIS Project Planning and Management
- September 19                No class because your professor is at GIScience Conference (<http://giscience.org/>)
- September 26                No classes scheduled at Hunter*
4. Schedule time for students to present preliminary project/paper ideas [to be scheduled]
5. October 3                      Picture the Homeless – Organizational Case Study
- October 10                      Hunter follows a Monday schedule [optional additional class]*
6. October 17                    Access to Data, Information, and Knowledge
7. October 24                    Challenges: Privacy, Surveillance, Ethics
8. October 31                    Participatory Visioning and Community Viz
9. November 7                  Participation Tools for Communication and Deliberation
10. November 14                Project Written & Verbal Update – External Review/Feedback
11. November 21                PPGIS Evaluation [online discussion using Bb Collaborate]
12. November 28                Guest Lecture – Focus on PP-IT in Australia, Topic, Readings to be announced
13. December 5                 Volunteered Geographic Information
14. December 12                The Future of Participatory Planning with Technologies
15. December 19                In-class presentations [6 Minute Lightning Talks] & Final Submissions

## Detailed Schedule and Readings

### Sessions 1 & 2/August 29 & September 5/ Empowerment, Marginalization, and PPGIS

1. Ramasubramanian, L. 2010. GIS & PP
  - a. Chapter 1. Dilemmas in Contemporary Planning [BB]
  - b. Chapter 2, The Digital Revolution [BB]
2. Arnstein, Sherry. 1969. A ladder of citizen participation, JAIP, Volume 35, 4, pp. 216-224 [BB]
3. Aigner, S, Raymond, V.J, and L.J. Smidt. 2002. "Whole community organizing" for the 21<sup>st</sup> century, Journal of the Community Development Society, Volume 33, 1, pp. 86-106 [BB]
4. Peterman, W. 2004. Advocacy vs. collaboration: Comparing inclusionary community planning models, Community Development Journal, Volume 39, 3, pp 266-276 [BB]
5. Organizing's Past, Present and Future, *Shelterforce Online*, Issue #101, September/October 1998
  - a. Michael Eichler (1998) "Look to the Future, Learn from the Past" Organizing's Past, Present and Future," *Shelterforce Online*, Issue #101, September/October. Available at <http://www.nhi.org/online/issues/101/eichler.html>
  - b. Kim Fellner (1998) "Organizing's Past, Present and Future-: Hearts and Crafts: Powering the Movement" *Shelterforce Online*, Issue #101, September/October. Available at <http://www.nhi.org/online/issues/101/fellner.html>
  - c. Ernesto Cortés, Jr. (1998) "Reclaiming Our Birthright," *Shelterforce Online*, Issue #101, September/October. Available at: <http://www.nhi.org/online/issues/101/cortes.html>

#### Review Online

What Makes a Protest Effective?

<http://www.nytimes.com/roomfordebate/2012/08/20/what-makes-protest-effective>

### Session 3/September 12/ PPGIS Project Planning and Management

1. Ramasubramanian, L. 2010
  - a. GIS & PP, Chapter 3, The Need for Frameworks [BB]
  - b. GIS& PP, Chapter 4, State of the Practice [BB]
2. Innes J, & D. Booher, 2004. Reframing Public Participation: Strategies for the 21st Century, Planning Theory & Practice, Volume 5, 4, pp. 419-436 [BB]
3. Schlossberg & Shuford, 2005. Delineating "Public" and "Participation" in PPGIS, URISA Journal, Vol. 16, No. 2 [BB]
4. Snow, Petit, et.al, 2004. Neighborhood Early Warning Systems: Four Cities Experience and Implications for the District of Columbia. Fannie Mae Foundation Report [BB]

#### Review Online

CITY NEWS Chicago

<http://www.newschicago.org>

PARK SCAN San Francisco

<http://parkscan.org/>

EVERY BLOCK New York

<http://nyc.everyblock.com/>

### Session 4/September, Date TBA/ Students' Preliminary Project Ideas 5 minute presentation + 2 page written summary due [10% of project grade]

#### PROJECT

- Background about the issue; your personal motivation to explore this topic?
- Is there a need for GIS? Any other allied technologies?
- Is there a need for participation? Do you know who the participants will be?
- What are the desired end-goals?
- What are anticipated challenges?

#### PAPER

- Background about the issue; your personal motivation to explore this topic?
- What are the linkages between your topic and PPGIS?
- Preliminary reading list (material published 2005 or later, unless it is for context setting)
- What will be the angle/focus/research question that will guide the paper writing?
- What are anticipated challenges?

### **Session 5/October 3/ Organizational Case Studies and Reflections**

1. Ramasubramanian, GIS & PP, Chapter 5, Politics and Participation in Boston's South End
2. Ramasubramanian, GIS & PP, Chapter 6, Planning to Preserve Community Character in Oak Park, IL
3. Ramasubramanian, 2004. Knowledge production and use in CBOs: Examining the Impacts and Influence of IT, CityScape, 7.1, pp 165-191 [BB]
4. Elwood, S. 2002. GIS use in community planning: a multidimensional analysis of empowerment, Environment and Planning A, Volume 34, pp. 905-922 [BB]
5. Hoyt, L, Khosla, R, & C. Canepa. 2005. Leaves, Pebbles, and Chalk: Building a PPGIS in New Delhi, India Journal of Urban Technology, Volume 12, 1, pp. 1-19

Picture the Homeless <http://picturethehomeless.org/>

Read Banking on Vacancy: Homelessness and Real Estate Speculation, downloadable from the website

### **Mid Term Exam Announced October 3<sup>rd</sup>, due October 17<sup>th</sup>**

There is no class on October 10<sup>th</sup>, because Hunter College follows a Monday Schedule

Answer two questions, each with a word length of 750 words, excluding citations/maps etc.

### **Session 6/October 17/ Access to Data, Information, and Knowledge**

Special Issue of URISA Journal APA 1 [BB]

1. Carver, S. The Future of Participatory Approaches Using Geographic Information: developing a research agenda for the 21st Century
2. Drew, C. Transparency – Considerations for PPGIS Research and Development

I expect to add a couple of additional readings here

#### Review Online

Tactical Technology Collective: <http://tacticaltech.org/>

### **Session 7/October 24/ Challenges: Privacy, Surveillance, Ethics**

1. Dobson, J & P. Fisher. 2003. Geoslavery. IEEE Technology and Society Magazine, Spring 2003 [BB]
2. Lejano, R. 2008. Technology and institutions: A critical appraisal of GIS in the planning domain, Science Technology and Human Values, Volume 33, 5, pp. 653-678 [BB]
3. Rambaldi, G, Chambers, R, McCall, M, & J. Fox. 2006. Practical ethics of PGIS practitioners, facilitators, technology intermediaries and researchers. Participatory Learning and Action, 54 [BB]

I expect to add a couple of additional readings here

#### Required Web Review

GIS Ethics for Geospatial Professionals

<https://www.e-education.psu.edu/research/projects/gisethicsproducts>

### **Session 8/October 31/ Participatory Visioning**

1. Shipley, R. 2000. The Origin and Development of Vision and Visioning in Planning, International Planning Studies, Volume 5, No. 2, pp. 225-236 [BB]
2. Shipley, R. 2002. Visioning in planning: is the practice based on sound theory? Environment and Planning A, Volume 34, pp. 7-22 [BB]
3. Ramasubramanian, GIS & PP, Chapter 7, Chicagoland's Search for Common Ground [BB]
4. Bailey, K, and T. Grossardt, 2004. Better visioning for transit system development: A framework for the improvement of visualization and its successful application. Proceedings of the 2004 Transportation Research Board Meeting, Washington DC [BB]

#### Required Web Review

New Tools for Community Design and Decision Making: An Overview

<http://www.smartcommunities.ncat.org/toolkit/TCDDM/HOME2.htm>

Download CommunityViz: <http://shop.placeways.com/communityviz41freedownload.aspx>

It should also be available in the lab once we have ArcGIS up and running



**Session 9/November 7/ Participatory Tools for Communication and Deliberation**

1. Rinner, 2001. Argumentation Maps: GIS-based discussion support for on-line planning, E&P(B), Volume 28, pp.847-863 [BB]
2. MacEachren, A. M. & Brewer, I. 2004, Developing a conceptual framework for visually-enabled geocollaboration. IJGIS, Volume 18(1): 1-34 [BB]
3. Leuthold H, Hermann M, Fabrikant S I, 2007. Making the political landscape visible: mapping and analyzing voting patterns in an ideological space, E&P (B) Volume 34 (5) 785 – 807 [BB]

Note: Additional Web Review links may be added here

**Session 10/November 14/ Presentations of Project/Paper Progress [25% of project grade]**

No readings assigned / Brief (about 5 pages) written report due + presentation  
External Review

**Session 11/November 21/ PPGIS Evaluation**

1. Ramasubramanian, GIS & PP, Chapter 8, Evaluation [BB]
2. Carver, et.al. 2001. Public participation, GIS, and cyber-democracy: evaluating on-line spatial decision support systems, E&P(B), Volume 28, pp.907-921[BB]
3. Haklay. M., and C. Tabon. 2003. Usability evaluation and PPGIS: towards a usercentered design approach. IJGIS. 17(6), pp. 577-592 (BB)

**Session 12/November28/ Guest Lecture**

Readings TBA

**Session 13/December 5/ Volunteered GIS**

1. Elwood, S. 2008. Volunteered geographic information: future research directions motivated by critical, participatory, and feminist GIS, GeoJournal, 2008 72: 173-183

Review Online

Divide amongst class members the 24 position papers including supplementary papers and review them.  
Workshop on Volunteered Geographic Information, UC Santa Barbara, 2007

<http://www.ncgia.ucsb.edu/projects/vgi/participants.html>

Everyone should take a look at the Projects Page at Open Plans: <http://openplans.org/projects/>

**Session 14/December 12/ The Future of Participatory Planning with Technologies**

1. Ramasubramanian, GIS & PP
  - a. Chapter 9, PPGIS as Critical Reflective Practice [BB]
  - b. Ramasubramanian, GIS & PP, Chapter 10, Where to, from here? [BB]
2. Evans-Cowley, 2010. Planning in the Real-Time City: The Future of Mobile Technology, JPL 2010 25: 136, DOI: 10.1177/0885412210394100

**Session 15/December 19/ In-Class Presentations**

Readings/Hand Outs as provided by presenters

**Final Paper/Project Submission due by 12 noon, December 21<sup>st</sup>, 2012. Additional submission guidelines will be provided.**



## Seminar on Public Participation and GIS 787.41 (5225)

### Mid-Term Exam

Take-Home Short Essay/ 15% of Course Grade

**Date Due: October 17<sup>th</sup> before class [electronic submission]**

#### Instructions

##### Step 1:

Read the free book – What is Geo Design? [Less than 1 hour]

<http://www.esri.com/library/ebooks/GeoDesign.pdf>

##### Step 2:

Learn more about the Decision Commons concept [ Less than 30 minutes]

Visit Decision Commons: Envision a Sustainable Future (<http://www.decisioncommons.org>)

##### Step 3:

Watch the video demo of a project application [10 minutes]

Decision Commons: Using Geodesign to Support Light Rail Planning in the Puget Sound Region

Click to follow link

<http://video.esri.com/watch/975/decision-commons-using-geodesign-to-support-light-rail-planning-in-the-puget-sound-region>,

If link above doesn't work go to <http://video.esri.com>

Search for "Robert Matthews"

The materials referenced above in Steps 1 through 3 are generally in favor of Geo-Design as a positive way to further citizen participation and community engagement. In other words, geo-design allows pragmatic, bottom-up planning.

**I would like you to write an essay discussing both the pros and cons of using geo-design principles and approaches to address complex urban problems such as sustainability and human-induced climate change. The audience for your essay can be 1) everyday folk or 2) urban planners. Please make your choice of audience explicit.**