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# the Digital Restructuring of Cities

Barnard + Columbia | Architecture  
Course Number: Arch V4050  
Milbank 214 | Thursdays, 2:10-4PM

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## Syllabus: Fall 2015

“There is a consensus that global, technological, and social forces have broken the bonds that traditionally shaped city structure. A new urban order is forming in a world of virtual space, changing territorial behavior, and reinvented communities.”<sup>1</sup>

### Course Description

#### *the Short Version*

This advanced seminar will investigate the extent to which digital technologies are producing structural changes in urban environments, processes, and practices. Through a series of case studies, we will question the nature of those changes—their effects on the material condition and organization of cities, their benefits and costs, their promises and their failures. Ultimately, we will ask whether, and how, this potential restructuring carries with it a concomitant re-imagining of ‘the city’ itself and the ways in which we plan for its future.

#### *Overview*

Make no mistake: This is a back-to-basics course. Call it, maybe, a return to the City beneath the Digital Revolution. Or taking stock of what that city still holds as its built organization and sociopolitical operation, the changes it has experienced, and whether those changes have in fact been fundamentally revolutionary. Alternatively, we could call it taking stock of the prior work of the city’s planners in order to consider new directions for its planning.

Underscoring and supporting the seemingly break-neck, unrelenting series of tech-enabled alterations to the city are the promises of progress—most of them eerily similar to the promises of urban planning’s early decades. They are promises of efficiency and optimization: reliable city systems at lower costs to city dwellers. They are promises of democratic outcomes: greater public participation and citizen engagement, born of the marriage between open information and increased connectivity. They are the promises of increasing qualities of life described as lives of convenience: services on demand facilitated by peer-to-peer platforms and just-in-time push notifications. For the harder questions, they are promises of more efficacious decision making through precise and rational analytics—leading to more resilient systems, more prepared responses, more integrated coordination, and maybe even stronger communities. Listing its promises, the digital-age techno-utopia sounds very much like its industrial-age Modernist counterpart.

Above all else, they are promises of growth. Economic growth, to be exact, promised at multiple scales across networked urbanism: from the collaborative multiplier effects of the sharing economy to the very big business of innovation industries, from the job markets created across the skills spectrum to the resultant increases in real estate values as urban desirability continues to skyrocket. Without question, the promise of smart, digital, and networked cities is simple: bigger, better, faster, more.

But these are measures of *degree*, not *difference*. They describe augmentation, not transformation. Further, the last two centuries of urban history have taught us that not all progress is good and not all change is structural. New technologies and methods can sufficiently reorganize modes of production enough to reorganize societies and their spaces, certainly. They can also reinforce existing organizational structures or, sometimes sneakily, reify old functions as new forms.

And so, this course will present a return to the city and to the material stuff of urban planning:

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<sup>1</sup> Lawrence A. Herzog in his preface to *Return to the Center: Culture, Public Space, and City Building in a Global Era*.

the built environment interlaced with, between, and beneath the digital sphere—the long-standing concerns of city decision makers and city dwellers and their spatial practices. We will ask, as our primary questions:

- Whether and to what extent a collection of popular digital technologies have spurred (or could spur) structural changes in urbanism and the city, what those changes are, and whom they benefit; and
- Whether existing tools for planners, designers, and urban policy makers remain applicable and effective at addressing such long-standing concerns amidst these changes, and if not how our techniques might need to change in response and in anticipation.

*Method of Instruction*

Following the introductory week, the course is divided into a series of six case studies. Together they consider a collection of urban topics and scalar relationships between interventions, systems, users, actors, and decision makers.

Here's a decidedly pre-digital diagram of how that will work:

		CASE STUDIES BY ACTOR, USER	
		TOP-DOWN? City Agencies & Policy Makers	BOTTOM-UP? Platforms & Individuals
CASE STUDIES BY TYPE	<u>INFRA-STRUCTURE</u>	Service or Utility: Urban Broadband	Transportation: Uber
	<u>ZONING &amp; DEVELOPMENT</u>	Districts & Zones: Innovation as Land Use	Housing: AirBnB
	<u>PARTICIPATION</u>	City As Service: e-Governance	The Public Realm: Twitter

Given the course topic and the very active and current debates on several of the case studies covered in the syllabus, the class is structured as a seminar proper, primarily focused on an actively discursive method of instruction. Readings, thus, serve to lay out some of the historical and theoretical underpinnings and to offer comparative case studies. *Where readings are particularly cumbersome, I offer notes (in italics) describing the content of the reading list. Students should use these notes to determine how to approach the list based on previous knowledge of the topic.*

Through loosely structured, rigorous discussion, we will move through the case studies in search of commonalities, differences, and patterns by which urban spaces may (or may not) be undergoing processes of structural change with the relatively recent addition and heavy adoption of various digital technologies. Further, we will ask (and attempt to answer) what those changes imply or require *vis a vis* the role of urban planners, designers, and policy makers.

Toward this end, the seminar's structure is designed to elicit (1) thoughtful and in-depth critical analysis on each case study presented as well as (2) comparative analysis across topics and scales through the course of the semester.

*Student Learning Objectives*

Among others, the course objectives include the ability to translate (bidirectionally) between works of history and theory and acts of intervention whether they be products, proposals, platforms, or policies. More specifically, upon successful completion of the course, students

should be able to

- Understand and critically interpret the central social themes currently present in rising debates on digital technologies and urban development, as well as several historical precedents contributing to the development of the projects studied.
- Understand the development of urbanism as a discipline, with particular focus on its co-development adjacent to related disciplines, as well as the historical relationship between the development of cities, societies, technologies, and political economies.
- Demonstrate a facility with transdisciplinary analysis and inquiry, incorporating sources (both primary and secondary) and methods (quantitative and qualitative) from across disciplines in the study of cities and their planning processes.
- Develop a critical approach to the analysis of digital urban projects and policies, one which situates these interventions within and upon a physical site *and* a social context.
- Develop basic elements of historical *and* geographic research: including the formulation of research questions; the use of textual, visual, and data-based evidence; and the development of analytical relationships of processes spanning both time and space.

*Standard Information* The class will meet once weekly on Thursdays from 2:10PM to 4:00PM, save for exceptions described in the academic calendar and noted in the Course Schedule below. Barring any technical difficulties, class will begin promptly.

*Device Policy* Generally speaking the classroom policy on ‘devices’ is as follows:

- Students may use laptops, tablets, etc to access readings and notes.
- Students may use those devices for other reasons very minimally, so long as they do not become a distraction or an in-class habit.
- Non-class-related, on-screen content is not allowed. This means that, by way of example, the absolute only way to make Twitter usage okay by this policy is to be tweeting *about* class (with appropriate hashtags and mentions, of course).

## Evaluation & Grading

*Reading & Participation* Students are expected to keep up with the syllabus schedule, completing readings prior to class, and arriving prepared for discussion. Further, while the syllabus divides readings into specific topics and case studies, these are organized with a cumulative logic. Thus, concepts and ideas discussed in the early weeks will reappear, and certain topics cannot be meaningfully discussed without prior groundwork laid in others. As a result, again, students are expected to keep pace with the syllabus reading schedule.

To be clear, **participation in discussion is a basic requirement of the course comprising 10% of the final grade.** Given the discussion-based method of instruction (above) and the structure of the seminar, you will only get out of this class what you put in. (*i.e.*, there’s no learning through osmosis here.) So, participation is a minimum requirement, full participation points will be granted for consistent, active, thoughtful, thought-provoking, and rigorous attention to the discussion at hand.

Given the material covered in the course, it is only appropriate to include digital platforms when considering discussion participation. The class’s Courseworks discussion board (see below) will be used for augmenting in-class discussion. For the Twitter-inclined, use the hashtag #DigitalRestructuring.

*Seminar Case Study* Students (in groups as necessary) will present one of the six case studies covered in the seminar syllabus and lead a discussion of that case study. Students will be given a complete assignment description outlining the requirements and expectations. In short, there are three components:

- An **annotated bibliography** of supplementary sources on the case study or comparative cases presented in class. This bibliography will comprise **10% of the final grade.**
- A slide **presentation**, delivered in-class on the first day of the case study discussion, worth **15% of the final grade.**

- Leading discussion of the case study including raising critical questions and offering theses and/or hypotheses for debate. Discussion lead (delivered in-class and as submitted notes) will comprise **15% of the final grade**.

*Paper*

The final deliverable is a 15-page essay or research paper, as appropriate to the topic chosen by each student. The topic should be an analysis of an urban digital technology, its intentions and effects, concluding with arguments and recommendations for future interventions supported by the analysis. Paper topics may be derived from case studies presented in class or others. A full assignment description outlining the requirements and expectations will be distributed at the midterm. In the meantime,

- Students are free to choose both the topic *and* the method of analysis for this final deliverable and are encouraged to use (or, at minimum, consider using) *all* of the analytical tools in their arsenals. The format of the deliverable (essay, research report, etc) will be determined by the analysis chosen. Predominantly qualitative methods of comparison and consideration will yield more traditional essay-format papers. Predominantly quantitative methods using GIS-based data analysis, cost-benefit analysis, or others, will yield a research report. (Mixed methods are also encouraged, of course.)
- Students should choose their topics and methods of analysis while keeping in mind that the deliverable must ultimately support an action-oriented position and conclude with a set of recommendations—whether on policy and regulation, development practices and processes, technological requirements or capabilities, community organizing, or others. In other words, the paper cannot stop at analysis—the question of what city planners, policy makers, and/or communities should do next must be addressed.
- The assignment requires one interim deliverable prior to the submission of the paper: a **detailed topic proposal**—comprising **15% of the final grade** and due in class on 5 November—including a description of the case study technology under consideration, the preliminary thesis or hypothesis (as appropriate to the chosen topic and analysis), a brief description of the analytical framework through which the paper will support the thesis or hypothesis, and a preliminary bibliography (including data sources if appropriate).
- The **final deliverable** is due on 10 December and comprises **35% of the final grade**.

*Attendance*

With a particular mind to the importance discussion plays in the course structure, students are expected to attend every class meeting. Attendance records will be maintained throughout the semester (via sign-in sheets). Students with excessive absences (greater than 1) without appropriate reason, will see a reduction in their final grades in increments of one-third of a letter grade (e.g., A- to B+) beginning with the second absence.

Students who will miss class due to religious holidays or other appropriate reason should email the professor in the first week of classes with the dates (and reasons) of their foreseen absences and are encouraged to make arrangements with peers for notes.

*Submission*

Each assignment description will outline the specific requirements for its submission format, deadline, and deliverable expectations.

Save for extenuating circumstances for which extensions will be given only with prior approval and compelling reasons, absolutely no late assignments will be accepted without a late penalty. The late penalty is a reduction of 50% of the total points possible within the first 24 hours after the deadline and an additional 25% of the total possible points up to 48 hours after the deadline.

*Grading*

Assignments will be graded on a four-point letter-grade scale, from which final grades will be calculated according to the percentages listed above. Any students holding a grade of less than B- following the University's Election Holiday will be notified, and a meeting will be scheduled to discuss expectations for the latter half of the semester.

*Expectation of Academic Honesty*

As always and as with every other course, this class is conducted in accordance with University policy on matters of academic honesty and integrity and with attention to the College's Honor Code. Note that instances of plagiarism will not be tolerated—whether in written text, in research, or in intellectual framing—and will result in an automatic failure in the course. We build on the work of others: give credit where credit is due.

Additionally, this course contains a few considerations which should be stated. At several points in the course, students will be encouraged to look to their peers for collaborative discussion and debate. Except where otherwise stated in specific assignments, collaboration is welcomed but individual assignments must be conceived and completed individually.

Lastly, an explicit and related reminder: given the nature of the topics explored in the course and the discipline's requirement toward action and intervention (*i.e.*, students are expected to develop and hold value judgments on the material discussed), we should be consciously aware of the principle of academic freedom. I suspect many students have already rendered several opinions about the value and use of many of the case studies. I also suspect several of those opinions will be respectfully challenged within the course.

*Students with Disabilities* Students with disabilities who will be taking this course and may need disability-related accommodations are encouraged to make an appointment with me as soon as possible. Disabled students who need accommodations must be registered in advance with the Office of Disability Services (ODS) in 105 Hewitt.

## Resources & Materials

*Readings* There are no required book purchases associated with this course. Readings that are not available electronically as open sources or through the Libraries will be distributed as PDFs via Courseworks.

That said, many readings—as reflected in the list below—are collected within anthology readers containing several worthwhile texts and are recommended purchases.

*Courseworks* The class will rely heavily on the Courseworks platform for distributing readings, collecting and sharing additional resources, submitting digital copies of assignment deliverables, and discussion. (Students are encouraged to use the discussion board features to augment the in-class discussion.)

Courseworks will also be used to distribute class-wide emails. Please be sure to actively monitor the email address associated with your Courseworks login.

*Office Hours & Meetings* I hold office hours weekly on Thursdays from 11AM to 1PM. There is a sign-up sheet on the architecture department bulletin board on the fifth floor of the Diana Center. Individual meetings can be arranged for times outside of office hours by appointment.

## Course Schedule

*Abbreviations* [CW] Reading is available as a PDF on Courseworks.  
[LIB] Reading is available online via the University Libraries.

*Notes on the Seminar Schedule* Following the first week, the Schedule covers case studies in two-week increments. The structure of those meetings will be constant:

- In the first meeting, students will deliver an in-class presentation of the case study including what it is, what it does, how it functions, and who's involved relative to the production of urban space and city systems, including comparative examples where appropriate. This will lead to a discussion of the nature and extent of its effects on the city, including (but not limited to) effects on real estate, zoning and land use, political and public processes, design decisions, infrastructural investment, economic development, and so on.
- In the second meeting, we will discuss and debate the implications of this technological shift: What are the benefits and costs? And for whom? How is the distribution of cost and benefit determined? What are the respective roles of the public and private sectors? And, ultimately, to what extent are current planning and design practices and policy mechanisms appropriately equipped to handle these effects?

Notes on the  
Reading Lists

\* REQUIRED readings are annotated with a bold-face asterisk.

That said, students are responsible for a full understanding of each topic case study as described from several angles in the readings and should consult the additional readings as needed in preparation for these discussions, based on the planned arc of the discussion and their prior knowledge of the readings and/or case study. *Reminder: Italicized notes are provided to help students approach the readings.*

## Part 1 | Premises

You are here.  
Week 1  
10 Sep

### Housekeeping

- Course Overview, Review of the Syllabus, Expectations, and Paperwork.
- Brief discussion of the course's purpose and intentions, including why we're here and what's at stake.
- Seminar Case Study (presentations): Assignment description is distributed; Brave students will sign-up for the first topic. Others will sign-up in Week 2.

### Discussion Notes

Establishing basic operational definitions and premises for the course as a starting point or baseline for our seminar: In order to debate whether and to what extent the city is undergoing a substantive process of restructuring, we must first commonly establish what actually constitutes a "city," which characteristics indicate its "structure," and finally whether human-digital relations are conceptually different than other historical human-technological relations in ways which might affect our analysis/discussion.

### Readings

*Don't Freak Out. The following is not a "required" reading list for the first class. This is a short list of relevant readings to help set our premises and foundations. I suspect you've read many of them. Refresh your memory. Fill in gaps in your prior reading. Know that this list is here for later reference throughout the semester.*

Dodson, J. and B. Gleeson. 2009. "Urban Planning and Human Geography." In Kitchin, Rob and Nigel Thrift, eds. *International Encyclopedia of Human Geography*. New York: Elsevier. 77-83. [CW]

Fainstein and Campbell. *Readings in Planning Theory* [CW]

- Healey, Patsy. "Traditions of Planning Thought," 214-233. Originally published in *Collaborative Planning: Shaping Places in Fragmented Societies, Second Edition*. 2006, 7-30.
- Fainstein, Susan. "Planning Theory and the City," 159-175.

Harvey. *Social Justice and the City*. [LIB]

- Chapter 1. "Social Processes and Spatial Form: The Conceptual Problems of Urban Planning," 22-49.

Heidegger, Martin. "The Question Concerning Technology." Translated by William Lovitt, 278-303. In Stassen. *Philosophical and Political Writings, Volume 76: Martin Heidegger*. Lovitt's translation originally published by Harper and Row, New York, 1977, 3-35. [LIB]

Kinsley, Samuel. 2014. "The Matter with 'Virtual' Geographies." In *Progress in Human Geography*. 38(3):364-384. [LIB]

Legates and Stout. *The City Reader* [LIB]

- Castells, Manuel. "Space of Flows, Space of Places: Materials for a Theory of Urbanism in the Information Age," 572-582. Originally published in 2001.

Lin and Mele. *Urban Sociology Reader*. [LIB]

- Fischer, Claude S. "Theories of Urbanism," 42-49. Originally published in Fischer, ed., *The Urban Experience, Second Edition*. (New York: Wadsworth, 1984).

Pacione. *Urban Geography: A Global Perspective*. [CW]

- Chapter 1. "Urban Geography from Global to Local."
- Chapter 2. "Concepts and Theory in Urban Geography."
- Chapter 7. "Land Use in the City."
- Chapter 22. "Internal Structure of Third World Cities."

Pfliederer, Geraldine and Celine Rozenblat. 2010. "Introduction. Urban Networks and Network Theory: The City as a Connector of Multiple Networks." In *Urban Studies*. 47(13): 2723-2735. [LIB]

## Part 2 | Top-Down?

Infrastructure  
Weeks 2 & 3  
17 – 24 Sep

SERVICE OR UTILITY:  
The Case of Urban Broadband

### Housekeeping

Students sign-up for the remainder of case study presentations in class on 17 September.

### Discussion Notes

The literature distinguishes between Internet-access infrastructures by material and bandwidth/speed. An important distinction for this discussion will be the difference between municipal wireless projects and 'wired' (cable, fiber) infrastructures. Specifically, we will be concerned with the latter. That said, this distinction should raise fundamental equity issues in access and service when we consider gap-fill measures in providing Internet access that rely on mobile devices.

Students presenting this case study (or considering urban broadband as a final paper topic) may choose from a variety of cities with different approaches to broadband infrastructures. Pertinent and documented examples within the United States include Kansas City (Google) and Bristol, Virginia (municipal).

### Readings

*The reading list includes historical comparisons to the development of broadband: the telegraph as a connective communication infrastructure (Tarr) and cable television once promised as a means for democratizing content (Streeter). Much of the Mossberger text provides a general discussion of the topic (as does the van den Besselaar text) as well as a thorough case study of Chicago. In the US, the FCC reclassified broadband service in early 2015 as a part of the 'net neutrality decision. The summary press release (FCC) as well as descriptions of the issue before (Gustin) and after (Ruiz and Lohr) that decision are also included.*

*Digital Cities III. Information Technologies for Social Capital: Cross-Cultural Perspectives*. [CW]

- Peter van den Besselaar. "Local Information and Communication Infrastructures: An Introduction." Pp 1-16.

\*Gustin, Sam. 2013. "Is Broadband Internet Access a Public Utility?" in *Time*. 9 January. <http://business.time.com/2013/01/09/is-broadband-internet-access-a-public-utility/>

\*Federal Communications Commission. 2015. "FCC Adopts Strong, Sustainable Rules to Protect the Open Internet." [press release] 26 February. Available online at [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-332260A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-332260A1.pdf)

Mossberger, et al. *Digital Cities: The Internet and the Geography of Opportunity*. [LIB]

- Chapter 1. "Cities and a Digital Society."
- \*Chapter 2. "The Need for Urban Broadband Policy."
- \*Chapter 7. "The Geography of Barriers to Broadband Adoption."
- Chapters 6 & 8 include specific study of the case of Chicago.

Ruiz, Rebecca A and Steve Lohr. 2015. "FCC Approves Net Neutrality Rules, Classifying Broadband Internet Service as a Utility." *The New York Times*. 26 February. Online at <http://www.nytimes.com/2015/02/27/technology/net-neutrality-fcc-vote-internet->

utility.html.

Streeter, Thomas. 1987. "The Cable Fable Revisited: Discourse, Policy, and the Making of Cable Television." In *Critical Studies in Mass Communication*. 4(2): 174-200. [CW]

\*Tarr, Joel A. 1987. "The City and the Telegraph: Urban Telecommunications in the Pre-Telephone Era." In *Journal of Urban History*. 14(1): 38-80. [LIB]

Zoning &  
Development  
Weeks 4 & 5  
1 – 8 Oct

DISTRICTS & ZONES:  
The Case of Innovation as Land Use

#### Discussion Notes

The terminology used when spatio-economically incentivizing "innovation" has evolved over the last twenty-five years, beginning with "science and technology parks" in the 1990s to now include "knowledge centers," "innovation districts," and a variety of others. Development initiatives tend to include complex relationships between public, private, and university actors. In reading and preparation, students should consider the

- evolution of districting and incentivizing approaches, including the ways in which traditional land use categories and zoning mechanisms accommodate innovation or are modified, which purposes any such modifications serve, and whether the "spirit" of original zoning is maintained;
- relative roles of the public and private sectors—in the latter case, distinguishing between firms and real estate development—as well as universities;
- resulting "spill-over" effects of such districts;
- effects of globalization and global city competition on the development of these districts; and
- relationships (global and local) to other economically based districts and zones, such as free trade or economic zones (global) and business improvement districts (local).

For the students presenting this case (or considering the topic for a final paper), consider the developed literature on long-standing districts in Australia and Portugal (within the reading list) as well as more recent developments and approaches. The current NYC Cornell Tech Campus and its "Bridge" development are widely covered in the popular press, if not yet in the literature. Additionally, there are possible lessons to be learned from single-firm projects (such as Apple's campus in Cupertino and the Zappos-related redevelopment of Downtown Las Vegas) as well as less-planned regional agglomerations (e.g., the classic Silicon Valley example). If consulting these cases, however, keep in mind the role and actions of planners more broadly in order to avoid apples-to-oranges (unplanned-to-planned) comparisons.

#### Readings

The readings by Easterling, Painter, and Smith each offer foundational information and insight on different portions of the topic. Consult these as needed. The papers by Morosini and Clark, et al, include a succinct history and set of definitions pertaining to the development of innovation-based geographic clusters, the latter includes an extensive comparison of US cities. The very recent *Fast Company* article by Diana Budds includes a variety of current examples of planned innovation districts. The others are papers spanning from the 1990s to the present including two pairs of papers on case studies from Australia and Portugal. For the GIS-inclined, the Additional References list (at the end of the syllabus) includes a 1997 paper coauthored by Luc Anselin establishing early means of quantitatively measuring some of the effects of these clustered industries.

\*Budds, Diana. 2015. "Can You Design Innovation?" in *FastCo Design*. 18 August.  
<http://www.fastcodesign.com/3047888/slicker-city/can-you-design-innovation>

\*Clark, Jennifer, et al. 2010. "A Typology of 'Innovation Districts': What It Means for Regional Resilience." In *Cambridge Journal of Regions, Economy, and Society*. 3(1):121-137. [LIB]

Durao, D, et al. 2005. "Virtual and Real-Estate Science and Technology Parks: a case study of Taguspark." In *Technovation*. 25(3): 237-244. [LIB]

- Easterling. *Extrastatecraft: The Power of Infrastructure Space*. [CW]
- o Chapter 1. "Zone."
- \*Lofsten, Hans and Peter Lindelof. 2002. "Science Parks and the Growth of New Technology-based Firms—Academic-Industry Links, Innovation, and Markets." In *Research Policy*. 31(6):859-876. [LIB]
- Morosini, Piero. 2004. "Industrial Clusters, Knowledge Integration, and Performance." In *World Development*. 32(2):305-326. [LIB]
- Phillimore, John. 1999. "Beyond the Linear View of Innovation in Science Park Evaluation: An Analysis of Western Australian Technology Park." In *Technovation*. 19(11):673-680. [LIB]
- \*Ratinho, Tiago and Elsa Henriques. 2010. "The Role of Science Parks and Business Incubators in Converging Countries: Evidence from Portugal." In *Technovation*. 30(4):378-390. [LIB]
- Readings in Urban Theory* [CW]
- o Painter, Joe. "Regulation Theory, Post-Fordism, and Urban Politics," 23-41. Originally published in David Judge, et al (eds) *Theories of Urban Politics*. (1995)
- \*Simmie, James. 1998. "Reasons for the Development of 'Islands of Innovation': Evidence from Hertfordshire." In *Urban Studies*. 35(8): 1261-1289. [LIB]
- Smith, Neil. 2002. "New Globalism, New Urbanism: Gentrification as Global Urban Strategy." in *Antipode*. 34(3): 427-450. [LIB]
- \*Taylor Buck, Nick and Aidan While. 2015. "Competitive Urbanism and the Limits to Smart City Innovation: The UK Future Cities Initiative." In *Urban Studies*. (early release online. v(n):pp to come.) [LIB]
- \*Tigitcanlar, Tan, et al. 2008. "Rising Knowledge Cities: The Role of Urban Knowledge Precincts." In *Journal of Knowledge Management*. 12(5):8-20. [LIB]

Participation  
 Weeks  
 6 & 7  
 15 – 22 Oct

THE CITY AS SERVICE:  
 The Case of e-Governance

Assignments

Final Paper Assignment Description will be distributed in class on 22 October.

Discussion Notes

Like the case of innovation districts, e-governance has developed greatly, although much of its current state is rooted in the same concepts and aspirations, from the 1990s. Here, the existing political and governmental context is of paramount importance when evaluating the techniques, efficacy, and effects of implemented e-governance projects. As such, in reading and preparation, students should consider

- o whether, and the extent to which, e-governance projects are seen to augment democratic participation and engagement or reinforce existing patterns;
- o scalar differences in outcomes with a mind toward communities, municipalities, regions, and nation states;
- o contextual differences between projects in developing and developed regions, including (but not limited to) project goals, infrastructures used and/or created, and project outcomes;
- o the relationship between e-governance and "open government," the emerging practice of information-sharing through web-based portals; and
- o the relationships (implied or explicit) between the public and private sectors in the development and implementation of e-governance projects.

A Related Note: e-Governance is, more recently, closely related to the planning and

development of 'smart cities' and internal (bureaucratic) informational infrastructures for city management purposes. While this is not the focus of our discussion, students interested in these topics are encouraged to seek out the literature on their overlap.

Students presenting this case (or considering it for a final paper) are encouraged to frame case study comparisons regionally, developmentally, economically, and/or by local political structure.

### Readings

*The Davidoff and Forester readings serve as reminders of the underpinnings of public participation as planning practice. Students should consult these as needed, along with the Healey paper from Week 1. Chronologically, the readings cover research on early "digital cities"— what we once called websites that served as municipal or neighborhood portals—including two pairs of studies on Bristol and Shanghai (both a few years apart). The early literature on this topic can include technical or computer-science oriented sections. Where necessary, feel free to skim past the coding and information architecture. The later readings largely focus on evaluations and effects of e-governance projects. For additional case studies, I highly recommend browsing the proceedings of the annual European Conference over the last few years. Lastly, given the substantial differences resulting from local context, the UNDP report by Zambrano and Seward contains individual case studies from Albania, Bangladesh, Bulgaria, Cape Verde, and Indonesia, as well as a section devoted to cross-cultural conclusions, for your reference.*

Goel, Sameer, *et al.* 2012. "Critical Factors for Successful Implementation of E-Governance Programs: A Case Study of HUDA." In *Global Journal of Flexible Systems Management*. 13(4):233-244. [LIB]

*European Conference on eGovernment*. 2013 [LIB]

- Castelnovo, Walter. "A Stakeholder Based Approach to Public Value." 94-101.
- Christodoulakis, Dimitris *et al.* "Towards a Socio-Political Foundation of e-Government." 120-126.
- \*Keefe, Terry. *Et al.* "A Case Study Analysis of Factors Determining Success or Failure for Participants in Collaborative Innovation Projects in e-Government." 276-282.
- \*Mesa, Adela and Pedro Martinez-Monje. "Barriers to Electronic Governance and Digital Inclusion." 337-344.

*European Conference on eGovernment*. 2014 [LIB]

- \*Adams, Carl and Peter Millard. "The Evolution of State, People, and Corporate Relationships in e-Government." 10-14.

Fainstein and Campbell. *Readings in Planning Theory* [CW]

- Davidoff, Paul. "Advocacy and Pluralism in Planning," 191-205. Originally published in *Journal of the American Institute of Planners*. 31(4), 1965, 544-555.
- Forester, John. "Challenges of Deliberation and Participation," 206-213. Originally published in *Les Ateliers de L'Ethique*, 1 (2), 2008, 20-25.

Ishida and Isbister. *Digital Cities: Technologies, Experiences, and Future Perspectives*. [CW]

- \*Annelies de Bruine. "Digital City Bristol: A Case Study." 110-124.
- Ding Peng, *et al.* "Digital City Shanghai: Towards Integrated Information and Service Environment." 125-139.

Komninos, Nicos. *Intelligent Cities*. [CW]

- Chapter 8. "Intelligent Cities: Islands of Innovation Become Digital."
- Chapter 10. "Real-Virtual Regional Innovation Systems."

\*Mainka, Agnes, *et al.* 2014. "Government and Social Media: A Case Study of 31 Informational World Cities." [Conference Paper] 47<sup>th</sup> *Hawaii International Conference on System Sciences*. [available via open access at <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6758816>]

Van den Besselaar and Koisumi. *Digital Cities III. Information Technologies for Social Capital:*

*Cross-Cultural Perspectives.* [CW]

- o \*Alessandro Aurigi. "Urban Cyberspace as a Social Construction: Non-technological Factors in the Shaping of Digital Bristol." 97-112.
- o Ding Peng, et al. "Digital City Shanghai: Concepts, Foundations, and Current State." 141-165.
- o Nik van Dam, et al. "Cultural User Experience Issues in E-Government: Designing for a Multi-Cultural Society." 310-324.

\*Zambrano, Raul and Ruhya Kristine Seward. 2013. "From Connectivity to Service Delivery: Case Studies in e-Governance." [research report] United Nations Development Programme.  
<http://www.undp.org/content/dam/undp/library/Democratic%20Governance/Access%20to%20Information%20and%20E-governance/From%20Connectivity%20to%20Service%20Delivery%20-%20Case%20Studies%20in%20E-Governance.pdf>

### Part 3 | Bottom-Up?

Infrastructure  
Weeks 8 & 9  
29 Oct –  
5 Nov

RETHINKING TRANSPORTATION:  
The Case of Uber

Assignments

Topic Proposals for the Final Paper are due at the start of class on 5 November.

Discussion Notes

The literature on transportation network companies (TNCs), of which Uber is the dominant example, is developing, as is that of the so-called "sharing economy" more broadly. In NYC, for example, the effects of TNCs on transportation are currently being studied. As such, our discussion will have to rely on sources from outside conventional infrastructural planning disciplines (see below) in order to deduce many of the questions urbanists should be asking at the moment. While reading and preparing, students should consider

- o whether, and the extent to which, the platforms provided by TNCs are functionally equivalent to transportation infrastructures;
- o whether, and the extent to which, the question above implies that TNCs can be adequately evaluated by the same metrics or regulated by the same sorts of policies;
- o the historical role of the public sector and citywide or regional planning in transportation planning;
- o any additional current legal frameworks which may be challenged—in letter or in spirit—by Uber's model and the "sharing economy" more broadly; and
- o the implications for labor policies, local environmental policies, for policing practices, and for social and economic justice in the city.

Students presenting this case (or considering the topic for their final papers) are encouraged to look at different city, state, and national responses to Uber's presence including recent or current litigation and policy hearings. When making those comparisons, consider as well the quality and reach of any pre-existing transportation infrastructures.

Readings

*Background Readings, consult as needed (a few are in the Additional References list): Several readings are short pieces that summarize the popular coverage of the current Uber/TNC debate (Krohe, MacMillan and Demos, Pullen, Smith, and van Bever). The list is by no means exhaustive. In addition to these, students are encouraged to seek out the television ads (on youtube.com) both for and against Uber. Also included is a report on the wider "sharing economy" debate (Schor), a business-oriented report on the sharing economy's relationship to travel specifically (Trivett), and US Congressional testimony on peer-to-peer/sharing business (Sundararajan).*

*Beyond these, the list includes policy papers from multiple political and economic positions (Feeney, Isaac, and Teal) and breakdowns of several pending legal questions (Rassman and Rogers). Toward local policy, the list also includes transcripts of public testimony from St Louis*

(Miller) and New York City (NYC City Council). For comparison with other car-based manifestations of the “sharing economy” see the Firnform and Muller article in the Additional References section at the end of the syllabus.

- \*City Council. City of New York. 2015. “Transcript of the Minutes of the Committee on Transportation.” 30 June. [CW]
- . 2015. “Transcript of the Minutes of the Committee on Transportation.” 23 July. [CW]
- \*Feeney, Matthew. 2015. “Is Ridesharing Safe?” 27 January. Policy Paper n767. CATO Institute. [available online in multiple digital formats at <http://www.cato.org/publications/policy-analysis/ridesharing-safe>]
- \*Issac, Emily. 2014. “Disruptive Innovation: Risk-Shifting and Precarity in the Age of Uber.” BRIE Working Paper 2014-7. Berkeley Roundtable on the International Economy. 7 December. <http://www.brie.berkeley.edu/wp-content/uploads/2015/01/Disruptive-Innovation.pdf>
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- Oxford Analytica Daily Brief Service. 2014. “Taxi Apps Could Transform Global Transport Models.” 22 August. Oxford: Oxford Analytica. [LIB]
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- Trivett, Vincent. 2013. “What the Sharing Economy Means to the Future of Travel.” Skift Report 7. Skift.com. <http://skift.com/wp-content/uploads/2014/07/skift-what-the-sharing-economy-means-to-the-future-of-travel.pdf>
- van Bever, Derek. 2015. “Uber Needs Our Permission to Grow.” 9 February. *Harvard Business Review*. <https://hbr.org/2015/02/uber-needs-our-permission-to-grow>.

Zoning &  
Development  
Weeks  
10 & 11  
12 – 19 Nov

RECLASSIFYING HOUSING:  
The Case of AirBnB

Housekeeping

Class on Thursday, 12 November will be rescheduled to a time earlier in Week 10 or early during Week 11.

Discussion Notes

The literature and debate on short-term rentals (of which AirBnB is the dominant example) is much more fleshed out and diverse than that of Uber, but still lacks considerable research on the question of housing affordability (which we'll have to infer via discussion). As a caveat, that literature does include a variety of topics that are beyond the scope of the seminar. One worth mentioning is the impact on local and global tourism industries and the economies tied to them. Instead, we'll focus on the more "classic" urban planning issues re-raised by short-term rentals—primarily those of zoning, affordability, and discrimination. Primary issues to consider in reading and preparation are

- variations and effects of categorizing housing as the necessity of shelter, as land use, and as an economic activity, and how these distinctions are planned via zoning and regulation;
- planning's historical role (and, at least in the US, the legal basis for this role) in regulating land use via zoning and housing via the relationship between landlords and tenants (including issues of discrimination);
- the effects of AirBnB on housing affordability and real estate value;
- the effects of short-term rentals on planners' and policymakers' ability to measure (and thus understand) urban density, population mobility, affordability, and economic stability; and
- the implications on local control (in effect and in meaning).

The case of AirBnB has been dealt with differently by municipalities offering us a range of comparisons on which to base our discussion. Students presenting this case (or considering a final paper on the topic) should consider instances within the US and elsewhere. I also urge students to review the ads put forth by the various parties in an effort to sway public opinion on the issue.

Readings

*Consult Weeks 8 & 9 for the "sharing economy" basis readings, as needed. As refreshers on issues of housing policy and community control in urban and planning theory, see the Marcuse and de Filippis readings (respectively). The general legal questions are described (from different perspectives) by Jefferson-Jones and McNamara. Additional regulatory concerns (including racial discrimination through the platform) are described in Edelman and Luca, Kaplan and Nadler, and Todisco. Affordability and real estate value questions are raised in Ellen and Jefferson-Jones. Lastly, as for the nature of the policy debate in NYC, the transcript of the January 2015 day-long city council hearing (with testimony from several actors) is included.*

\*City Council. City of New York. "Transcript of the Minutes of the Committee on Housing and Buildings." 20 January 2015. [CW]

\*Edelman, Benjamin G. and Michael Luca. 2014. "Digital Discrimination: The Case of Airbnb.com." Harvard Business School NOM Unit Working Paper No. 14-054. 10 January. Available at <http://dx.doi.org/10.2139/ssrn.2377353>

\*Ellen, Ingrid Gould. 2015. "Housing Low-Income Households: Lessons from the Sharing Economy?" in *Housing Policy Debate*. Published online 14 July. (Not yet in print.) [LIB]

Fainstein and Campbell. *Readings in Planning Theory* [CW]

- deFilippis, James. "Collective Ownership and Community Control and Development: The Long View," 268-291. Originally published in *Unmaking Goliath*, 2004, 37-59.

\*Jefferson-Jones, Jamila. 2015. "Airbnb and the Housing Segment of the Modern Sharing Economy: Are Short-Term Rental Restrictions an Unconstitutional Taking?" in *Hastings Constitutional Law Quarterly*. 42(3):557-576. [LIB]

- . 2015. "Can Short-Term Rental Arrangements Increase Home Values? A Case for AirBNB and Other Home Sharing Arrangements." In *Cornell Real Estate Review*. 13(1):12-19. [LIB]
- \*Kaplan, Roberta A and Michael L Nadler. 2015. "Airbnb: A Case Study in Occupancy Regulation and Taxation." In *University of Chicago Law Review Dialogue*. 82:103-115. [LIB]
- Marcuse, Peter. 1978. *The Myth of the Benevolent State: Towards a Theory of Housing*. (Papers in Planning 8). New York: Columbia University, Graduate School of Architecture and Planning. [CW]
- McNamara, Brittany. 2015. "AirBNB: A Not-So-Safe Resting Place." In *Journal on Telecommunications and High Tech Law*. 13(1): 149-170. [LIB]
- Sundararajan, Arun. 2014. "What Airbnb Gets about Culture that Uber Doesn't." *Harvard Business Review*. 27 November. <https://hbr.org/2014/11/what-airbnb-gets-about-culture-that-uber-doesnt>.
- Todisco, Michael. 2015. "Share and Share Alike? Considering Racial Discrimination in the Nascent Room-Sharing Economy." In *Stanford Law Review Online*. 67(121) March, 121-129. <https://www.stanfordlawreview.org/online/share-and-share-alike>

Thanksgiving  
Week 12  
26 Nov

NO CLASS – Thanksgiving Holiday

Participation  
Weeks  
13 & 14  
3 – 10 Dec

DIGITIZING THE PUBLIC REALM:  
The Case of Twitter

Assignments

Final Paper deliverables are due at the start of class on 10 December.

Discussion Notes

The open topics and separate ways in which we can discuss the reconfiguration of public space via social media are numerous. Rather than ignoring many of them and rather than only superficially discussing most of them, we will focus our conversation on the dual directionality of 'participation' in planning contexts: the organization of formal participatory processes via crowdsourcing and the legacy of self-organized advocacy-oriented activities. In reading and preparation, students should consider

- the ways in which these decades-old planning practices are potentially restructured or otherwise affected by social media platforms, with a mind toward Twitter usage specifically;
- the unique characteristics of the Twitter platform and format that have contributed to its wide adoption within these activities;
- the important questions of inclusion and exclusion, of representation, invoked by technology-based, crowdsourced participation fora;
- the relationship between "public participation" and the creation of self-selecting "publics" offered by social-network based media;
- whether, and the extent to which, social-media-based advocacy is complicated by platforms which aggregate and *produce* data from participation; and
- the relationship between online participatory processes and the physical space of the city, with a mind toward temporal shifts in how the city is used and experienced.

Students presenting this case (or considering it as the basis for a final paper) are encouraged to isolate instances of Twitterverse as public sphere (or augmentation of the public sphere) with strong bases for comparison. Here, as always, cultural and political context is paramount, and students are warned against the temptation to consider the "social media sphere" as placeless.

Readings

*The basis upon which we will discuss is that of the advocacy-communicative-deliberative-*

argumentative thread in planning theory since the late 1960s. In addition to earlier readings, students should consult the Fischer and Coleman readings as needed. The other readings cover the use of social media in self-organized social movements (Al Sayyad and Guvenc, Allegra et al, Andres, Kleinhans et al, and Juris), the creation of social media-based participation projects (Brabham, Evans-Cowly and Griffin, Seltzer and Mahmoudi, and Salim and Haque), as well as a few readings to contextualize our conversation within larger urban-digital discourses as we wrap up the semester (Andres, Luque-Ayala and Marvin, and Rabari and Storper).

Al Sayyad, Nezar and Muna Guvenc. 2015. "Virtual Uprisings: On the Interaction of New Social Media, Traditional Media Coverage and Urban Space during the 'Arab Spring.'" In *Urban Studies*. 52(11), 2018-2034. [LIB]

\*Allegra, Marco, et al. "Rethinking Cities in Contentious Times: The Mobilisation of Urban Dissent in the 'Arab Spring.'" In *Urban Studies*. 50(9): 1675-1688.

Andres, Lauren. 2013. "Differential Spaces, Power Hierarchy, and Collaborative Planning: A Critique of the Role of Temporary Uses in Shaping and Making Places." In *Urban Studies*. 50(4): 759-775. [LIB]

\*Bodnar, Judit. 2015. "Reclaiming Public Space." [editorial] In *Urban Studies*. 52(12): 2090-2104. [LIB]

Brabham, Daren C. 2012. "Motivations for Participation in a Crowdsourcing Application to Improve Public Engagement in Transit Planning." In *Journal of Applied Communication Research*. 40(3):307-328. [CW]

Evans-Cowley, Jennifer and Greg Griffin. 2012. "Microparticipation with Social Media for Community Engagement in Transportation Planning." In *Transportation Research Record: Journal of Transportation Research Board*. 2307: 90-98. [CW]

Fainstein and Campbell. *Readings in Planning Theory* [CW]

- o Fischer, Frank. "Public Policy as Discursive Construct: Social Meaning and Multiple Realities," 445-462. Originally published in *Reframing Public Policy*, 2003, 48-64.

Fischer and Gottweis. *The Argumentative Turn Revisited: Public Policy as Communicative Practice*. [LIB]

- o \*Coleman, Stephen. "The Internet as a Space for Policy Deliberation." 149-179.

\*Kleinhans, Reinout, et al. 2015. "Using Social Media and Mobile Technologies to Foster Engagement and Self-Organization in Participatory Urban Planning and Neighbourhood Governance." In *Planning Practice and Research*. 30(3): 237-247. [LIB]

\*Juris, Jeffrey S. 2012. "Reflections on #Occupy Everywhere: Social Media, Public Space, and Emerging Logics of Aggregation." In *American Ethnologist*. 39(2):259-279. [LIB]

\*Luque-Ayala, Andres and Simon Marvin. 2015. "Developing a Critical Understanding of Smart Urbanism?" in *Urban Studies*. 52(12): 2015-2116. [LIB]

Rabari, Chirag and Michael Storper. 2015. "The Digital Skin of Cities: Urban Theory and Research in the Age of the Sensored and Metered City, Ubiquitous Computing, and Big Data." In *Cambridge Journal of Regions, Economy, and Society*. 8(1): 27-42. [LIB]

\*Seltzer, Ethan and Dillon Mahmoudi. 2013. "Citizen Participation, Open Innovation, and Crowdsourcing: Challenges and Opportunities for Planning." In *Journal of Planning Literature*. 28(1): 3-18. [LIB]

\*Salim, Flora and Usman Haque. 2015. "Urban Computing in the Wild: A Survey on Large-Scale Participation and Citizen Engagement with Ubiquitous Computing, Cyber-Physical Systems, and Internet of Things." In *International Journal of Human-Computer Studies*. 81:31-48. [LIB]

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Full Citations  
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- . 2011. *Readings in Urban Theory, Third Edition*. Malden: Wiley-Blackwell.
- Harvey, David. 2009. *Social Justice and the City (Revised Edition)*. Athens, GA: University of Georgia Press. [1973]
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