Revised September 2, 2004

11.947 CRE – CDD DUSP – Media Lab Joint Faculty-Student Seminar

New Century Cities: Real Estate, Digital Technology, and Design

Faculty: Dennis Frenchman, David Geltner, Bill Mitchell

Participants: Michael Joroff, Tony Ciochetti, Carlo Ratti, Kent Larson, Keith Hampton, Frank Levy and others

Coordinator: Susanne Seitinger (susannes@mit.edu)

Wed. 12:30 p.m. – 2:30 p.m. (Room 10-485)*

Credits 3-6 (to be determined individually)

* Information session to be held on September 8,
4:30 p.m. – 5 p.m. in Room 10-485.

Introduction

From one north Singapore to Crossroads Copenhagen, cities, developers, and advanced technology and media companies are seeking to integrate advanced technology into the urban environment in a series of large-scale urban projects. These projects aim to create *extraordinary value* across multiple dimensions: enhancing physical livability, building social capital, and attracting companies, new ideas, and investment to their cities and nations. Will they succeed in generating value for developers, governments, and users as the promise?

Separating lore from reality in preparation for a conference with real estate, government and technology professionals in January is the primary objective of the bi-weekly faculty-student seminar entitled *New Century Cities*. The first seminar session will introduce and analyze a list of relevant projects in the United States and abroad that are already implementing cutting-edge ideas. The second meeting will focus on understanding the value proposition various stakeholders (users, developers, government entities, advanced technology and media companies) are pursuing in these new projects. The following sessions will be devoted to particular aspects of the value proposition, namely: technological value, social value, urban design (place) value, and real estate financial value

The course draws on faculty members from the Center for Real Estate, the City Design and Development Group (Department of Urban Studies and Planning), and the Media Lab to explore extraordinary projects that challenge conventional approaches to real estate development, urban design, and advanced digital technology.

Several key research questions motivate the agenda:

1. Will our use of the city change as media and communication technologies permeate everyday life? Will new patterns of living and working emerge?
2. What form of places and projects will be demanded to serve these new activities?
3. Which technologies are most relevant to the design of new real estate products and urban spaces?
4. Are the physical boundaries of public and private shifting in these cutting-edge developments? What questions of accessibility does this raise within the projects and in city spaces on a broader scale?
5. How can real estate developers earn a premium by proposing cutting-edge projects that incorporate advanced technology and fine-grained physical design?
6. In building the New Century City, what is the role of the private sector and the public? Where are their realms?
7. What new partnerships are being formed among media and advanced technology companies, developers and government entities to implement cutting-edge developments? What new management and pricing strategies will emerge?
8. Where will longterm value be created? Who will benefit … and who may loose?

Course Structure and Requirements

Sessions
Six sessions will be held over the course of the semester approximately every two weeks (please refer to the calendar for the scheduled dates). Each session has been given a thematic title but the content is very flexible and can be expanded according to participants' interests. Discussions will be initiated by one or two participants or guests who will present key challenges and questions to the group at the beginning of class.

All sessions will be held in room 10-485 unless otherwise noted. One session will take place in an experimental classroom in the Stata Center.

Requirements and Credit
Participation and presence at all of the sessions is essential to the course's research objective. Between 3 and 6 credits are available to participating students depending on each individual's ability to make a written or oral contribution to the course. Presence at each of the sessions is mandatory for any credit recipients. Generally, the course will only be open to auditors who have discussed their participation with one of the faculty members.

The course initiators aim to generate several working papers that will assist with framing the January conference to be held at the Center for Real Estate (see detailed description below).

Calendar

Date	Session		Opening Thoughts
Sept. 15	**1**	Introduction Example projects and prospects	Michael Joroff, Dennis Frenchman, Susanne Seitinger
Sept. 29	**2**	Placemaking and Urban Design Value Will this improve the livability of the city?	Dennis Frenchman, Whitney Foutz, Susanne Seitinger
Oct. 13	**3**	Technological Value What systems are being developed?	Bill Mitchell, Ryan Chin
Nov. 3	**4**	Social Value Who will benefit and how?	Michael Joroff, Keith Hampton (TBC)
Nov. 10	**5**	Real Estate Value What are the financial incentives for developers? How can we think about value in a more comprehensive and differentiated way?	Tony Ciochetti, David Geltner, Sean Sacks
Nov. 24	**6**	Reflection	
Dec. 1	**Extra**	Hold this date for any make-up sessions.	

Agenda

Session 1 (Sept. 15) Introduction and Case Studies
We will kick-off the seminar with the introduction of several project case studies that will serve as examples of new types of development projects. What makes these cutting-edge proposals different from "science cities" and "technopoles" of the '80s and '90s? The project summaries will give an overview of the physical, real estate and social aspects of each development.

Session 2 (Sept. 29) Placemaking and Urban Design Value
Adding a layer of technology to the urban real creates another dimension for placemaking that has not been available for the creation of real estate value or urban design quality in the past. How does the overlapping of uses benefit these projects? Can these lessons be applied throughout the city? What does it take to generate the vibrancy so touted by the projects' initiators? And finally, are developers able to effectively capitalize on their investment? Which trends seem to indicate the most promising directions?

Session 3 (Oct. 13) Urban Technology Value
What are the key urban technologies that the featured development project incorporate? An introduction to a range of elements (wireless electronic access, programmable signage and facades, sensing and tagging (RFID), and ubiquitous broadband internet) will be followed by more detailed presentations from invited guests.

<u>**Session 4**</u> **(Nov. 3) Social Value**
The social value aspect of these projects refers both to users and the development parties. On the one hand, new actors are initiating the projects. On the other, more diverse users are targeted for these environments.

Partnerships among advanced technology and media companies, developers, and government representatives involved in these recent examples seem to differ from public-private partnerships developing large-scale projects in the '80s and '90s. What are the new organizational arrangements necessary to develop the vision for these projects and manage the growth and operation of the completed physical environments?

Who are the users targeted by these projects? Are they the winners? And which urban residents are excluded? What can be said about the equity aspects involved in these cutting-edge developments that incorporate more cross-functional and supposedly public spaces?

<u>**Session 5**</u> **(Nov. 10) Real Estate Value**
Building on the discussion from Session 1, this meeting will focus on the value proposition itself. How is technology being leveraged to generate more real estate value? Are there social, environmental, and other benefits that can be derived to generate lasting value? How can we begin to determine and parse out the benefits to various stakeholders such as advanced technology and media companies, developers, and cities?

<u>**Session 6**</u> **(Nov. 24) Reflection**
The final session will be devoted to reflection and concluding thoughts. How do the four sides of the value proposition (Real estate, Social, Urban Design, Technology) presented by these cutting-edge projects work together? What expected and unexpected findings can we record from the semester?

January 2005 Center for Real Estate Conference
The Center for Real Estate (CRE) is hosting a conference to explore how a small number of cities throughout the world are creating a new generation of large-scale, mixed use development projects in the third week of January 2005. Ranging from One North Singapore to Helsinki, from the area around MIT to Florianopolis, Brazil, these areas enhance livability, integrate digital media into their physical fabric and promote the creation of social capital. The primary objectives of the conference/workshop are:

- Build our collective knowledge about how a range of projects, implemented in different cultural and business environments, create social capital for their host cities and nations and provide value for all of the partners in the development process.
- Focus our understanding of how the use of the city many change as media and communication technologies permeate everyday life and change the fabric of our communities.
- Consider scenarios about how these projects may develop in the future and how lessons learned may be adopted by mainstream development projects.
- Explore how value will be created, who will benefit and who may lose.

- Strengthen our ability to act through partnerships that extend beyond government and real estate developers to include advanced technology and media firms, institutions and community groups.

Resources
The following list is a selection of recent and timeless resources to be supplemented throughout the semester.

MIT Resources
MIT Center for Real Estate http://web.mit.edu/cre

Articles and Books

Castells, Manuel. "The Space of Flows." 1996, 2nd ed. 2000 in Ida Susser, ed. *The Castells Reader on Cities and Social Theory.* Oxford: Blackwell, 2002.

Castells, Manuel. "The Culture of Cities in the Information Age." 1999, in Ida Susser, ed. *The Castells Reader on Cities and Social Theory.* Oxford: Blackwell, 2002.

Graham, Stephen, ed. *The Cybercities Reader.* London and New York: Routledge Urban Reader Series, 2004.

Indergaard, Michael. *Silicon Alley: The Rise and Fall of a New Media District.* New York, London: Routledge, 2004.

Luman, Stuart. "Singapore Wants You!" *Wired Magazine.* (12 August 2004) http://www.wired.com/wired/archive/12.08/singapore.html

"MIT: The Impact of Innovation," MIT Founders (pdf of report available), http://web.mit.edu/newsoffice/founders/TofC.html

Overholt, Alison. "Wireless in San Diego." *Fast Company* (January 2004): 84-87.

Saxenian, AnnaLee. "Lessons from Silicon Valley." *Technology Review* 95, no. 5 (July 1994): 42-51.

Saxenian, AnnaLee. "Silicon Valley versus Route 128." *Inc*. 16, no.2 (February 1994): 25-26.

Saxenian, AnnaLee. "The Cheshire Cat's Grin: Innovation and Regional Development." *Technology Review*. 91, no. 2 (February March 1988): 66-75.

Smith, Lee. "The Road to Tech Mecca," *Wired Magazine.* (12 July 2004) http://www.wired.com/wired/archive/12.07/dubai.html

Project Information and Web Resources

Crossroads Copenhagen, Denmark, http://www.crossroadscopenhagen.com/

The Digital Hub, Dublin, Ireland, http://www.thedigitalhub.com

Digital Media City, Seoul, Korea, http://dmc.seoul.go.kr/english/index.jsp

Downtown Alliance, Lower Manhattan, http://www.downtownny.com   (Splash Page for Free
Wirless Service, www.emenity.com/downtown/splash_bg.html)

Helsinki Virtual Village, Arabianranta, Finland, http://www.helsinkivirtualvillage.fi

History Unwired, Venice, Italy, http://www.web.mit.edu/frontiers

International Association of Science Parks, http://www.iaspworld.org/

Joel Kotkin (author of *The New Geography: How the Digital Revolution Is Reshaping the
    American Landscape*. New York: Random House, 2000.) Homepage,
    http://www.joelkotkin.com

Jurong Town Corporation, Developer of one-north, Singapore, http://www.jtc.gov.sg/

Lyme Properties, Cambridge Developer, http://www.lymeproperties.com

Michigan Cool Cities Survey, http://www.michigancoolcities.com

New York City Wireless, http://www.nycwireless.net

one-north, Singapore, http://www.one-north.com

Seoul City Government Information Resource, http://english.seoul.go.kr

World Foundation for Smart Communities, http://www.smartcommunities.org/