

## **Proposal Narrative \***

We propose offering a seminar series and linked symposium on “**Urban Science and Digital Transition: e-Planning: twenty years later,**” to (re)examine the impact of information technologies on community life and governance, **anticipate the implications for urban futures, and debate relevant DUSP strategies for the next twenty years.** **During the past few decades, significant changes in how we design, analyze, debate, and implement urban futures have been driven by the adoption and use of emerging information and communication technologies (ICT). Proponents have argued that the new technologies enable more efficient delivery of urban services, broader public participation, more empowerment of diverse constituencies, and improved government transparency. Yet social inequality and wealth concentration have worsened, action on climate integrity is meager, and trends in who collects and controls the vast amounts of new data risks privatizing public goods, increasing surveillance, and threatening democratic governance. ICT-driven disruption is continuing and it is an opportune time to reflect on how research about this digital transition that can better address DUSP’s strategic priorities: achieving Racial Justice, Enhancing Multi-Racial Democratic Governance, Achieving Climate Integrity, and Closing the Wealth Gap.**

Fall 2023 will be the 20<sup>th</sup> anniversary of our first ‘e-Planning Seminar,’ offered as a Speaker Series with guest talks and MIT faculty as discussants, an accompanying weekly for-credit seminar, plus an International Conference on “Information Technologies and Public Participation.” That conference plus the weekly for-credit seminar, was organized by Dr. Pedro Ferraz de Abreu shortly after he finished his DUSP PhD. All three of us DUSP faculty (Joe Ferreira, Bish Sanyal, and Larry Vale) worked with Pedro and participated in the 2003 events.

The proposed Fall 2023 events will be a good opportunity to reflect on our framing of ‘urban science’ issues two decades ago in order to stimulate deeper discussion of what we mean by the term today, **how its pursuit furthers DUSP strategic objectives,** and the ways in which we think urban science-related education and research should progress. The general approach will be to hold a series of biweekly Monday lunch talks similar to what DUSP has done for ‘Planning Ideas that Matter’ seminar discussion. We will then host a one-day symposium in mid-November to explore the issues with additional beyond-DUSP input.

The three linked activities will be structured as follows:

- 1) The seminar speaker series on "Urban Science & Digital Transition: e-Planning twenty years later", organized as a 1.5 hour "lunch guest speaker series" with MIT faculty discussants;
- 2) The "International Conference on Public Participation & Information Technologies", organized as a 1.5 day symposium;
- 3) The seminar class: “e-Planning and Digital Transition”, organized as a 6-credit special seminar for undergrads and graduate students.

The general approach will be to structure invited presentations along the following lines:

- Ground each presentation with one or more societal objectives of particular concern to DUSP that might be furthered through the use of digital technology – e.g., improvements in sustainability, social equity, consensus building, or multi-racial democratic governance,
- Explain the rationale for improving urban planning and local government practices through the use of information and communication technologies (ICT) - e.g., administrative efficiency, transparency, or clarity of spatial implications,
- Present examples of case studies and empirical research examining particular ‘best practice’ efforts to improve urban planning practices through innovative use of ICT,
- Identify unanticipated difficulties or unintended consequences that limited the effectiveness of ICT-lead interventions – e.g., data availability/biases, control of data access and analytic capacity, erosion of trust through disinformation, imbalances in cross-sectional and temporal tradeoffs, absence of business models and organizational support to build consensus for changed behavior,
- Discuss multi-disciplinary contributions to understanding interventions and ICT impacts through, for example, problem restructuring, programmatic design, behavioral modeling, social policy analysis, and organizational theory,
- Draw conclusions and suggest paths forward for advancing urban science education and research and improving our capacity to understand, design and plan equitable and sustainable urban futures.

This format will facilitate meaningful participation of DUSP faculty, with minimal time commitment, and in a manner that will encourage multi-disciplinary discussion of DUSP’s role in shaping the future of ‘urban science.’ All DUSP faculty will be invited to participate in one or more seminar or symposium sessions either as a presenter or as a discussant. SPURS fellows will also be encouraged to participate. By looking carefully at past and current thoughts about information technology’s influence on community life, urban redevelopment, and governance, we hope to foster a deeper look into the impacts and implications of the ongoing ‘digital transition’ on social inequality and participatory planning without becoming overly focused on the latest concerns about generative AI and ubiquitous sensing.

During the past two decades, ICT has accelerated changes in urban planning, service delivery, governance, and daily life by facilitating communication and transparency, providing logistic efficiencies, and enabling more detailed analyses. Nevertheless, during the same period, we have also witnessed increasing problems with social inequality and racial justice, persistent resistance to multi-racial democratic governance, and many behavioral and ‘demand-side’ obstacles to sustainable patterns of urban growth and mobility. Technology’s ubiquitous presence favors dissemination, accessibility, participation, and empowerment. And yet, instead of decreasing social inequalities, they have increased and accentuated imbalances in society's relationship with nature. ICT has surely facilitated some of the downside as well as enabled some of the benefits. As stated in the 2018 UN Strategic Report on Technology: "New and rapidly developing technologies... hold incredible promise for advancement of human welfare. They also hold the potential to generate more inequality and more violence." (UN General Secretary Guterres, 2018)

In keeping with our department's focus on problem-driven research and bottom-up approaches to urban planning, DUSP faculty have done more than choose between prototyping ICT-enabled possibilities and enumerating downside risks. They have explored bottom-up possibilities for ICT-enabled planning and societal change in a number of areas using approaches that eschew top-down 'smart city' 'solutions' and are more inclusive and attentive to the social disruption and distributional consequences of technology-driven change. The seminars and symposium are intended to help us enrich our understanding of 'urban science' possibilities and facilitate the exchange of ideas regarding the way forward.

We are especially interested in engaging those young faculty who have been involved in formulating and teaching parts of the 11-6 undergrad program. A number of such faculty have already agreed to participate including David Hsu, Sarah Williams, Andres Sevtsuk, Catherine D'Ignazio, Eric Huntley, and Cong Cong. The Fall 2023 seminar and symposium will complement current DUSP undergrad classes. Our current computer-related offerings tend to focus on technical and analytic skill-building, or on critiques of technical approaches due to data limitations, misinterpretations, and algorithmic biases. The proposed events will complement these activities by emphasizing the politics of technology-driven disruption and examining multi-disciplinary perspectives on the community planning and local governance implications of the ongoing digital transition.

To make the most from this 20<sup>th</sup> anniversary opportunity, Dr. Pedro Ferraz de Abreu has agreed to join us on the MIT campus for three months (September through November) as a visiting scholar. He will take the lead in organizing the seminar series and symposium and we have secured separate funding for his travel and living expenses during his visit. He is well-positioned to undertake this role. Not only is he a DUSP alum, but also, after organizing the earlier 2003 Symposium, Dr. Ferraz de Abreu joined the faculty of Portuguese universities and was the principal organizer of what has become a cross-university 'e-Planning' graduate program. This program collaborated with other European universities and Portuguese-speaking universities in Brazil and Africa and brought PhD students to Portugal to work with Portuguese students. Much of their research has focused on the multi-disciplinary study of how information technology can be used to improve the everyday lives and governance of less advantaged communities. Engaging with Pedro and his colleagues through the Fall 2023 seminar and symposium will enrich DUSP's discussion of the social justice and local political implications of digital technologies within international development settings.

Examples of themes for the seminar topics and symposium sessions include:

1. Geography of Inequality;
2. Spatial Analysis in Planning;
3. Urban Mobility and Smart Cities;
4. ICT Ubiquity and the new Social Media;
5. Privacy & Liberties vs. Efficiency & Security;
6. Climate Change, Energy & Digital Transitions;
7. Digital Sovereignty, Technology Innovation, and Property Rights;
8. Digital Inclusion and Citizen Empowerment;

The final list will be constructed with input from a Scientific Committee for the Symposium and Seminar series. This committee will be co-chaired by Joe Ferreira and Pedro Ferraz de Abreu and will include Bish Sanyal and Larry Vale as well as interested DUSP Faculty among those who agree to participate as presenters or discussants. For example, the previously-mentioned six faculty involved in the 11-6 program are particularly interested in these topics: David Hsu (6); Sarah Williams (1,2,8); Andres Sevtsuk (2,3); Catherine D'Ignazio (1,4,8); Eric Huntley (1,2), and Cong Cong (2,6).

The proposed Fall 2023 events will deliver:

- A for-credit weekly seminar for undergrads as well as graduate students that is linked to the bi-weekly seminar talks, with outside as well as MIT speakers and discussants. The seminar talks are likely to be during Monday lunch,
- A 1.5-day international symposium on this agenda (most likely on Thursday evening, November 9, and Friday, Nov. 10, 2023),
- Cross-fertilization with e-Planning researchers abroad (via zoom for the seminar series and in-person for symposium).
- A timely opportunity for DUSP to reflect on its framing of e-Planning issues at a time when there is limited consensus about the content and scope of 'urban science.'
- A book or monograph containing chapters based on seminar and symposium presentations plus reviews and reflections written by symposium organizers.