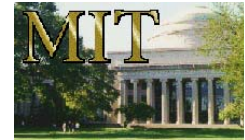# e-Planning Agenda

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"e-Planning Workshop" , 17 November 2010, FLAD*

e-Planning Consortium

In cooperation with MIT (Dept. of Urban Studies and Planning), where I began working on the concept of *e-Planning* (MIT course 11.950 e-planning Seminar) and built its agenda with Joseph Ferreira and other researchers back in 2003, several Institutes and Research Centers in Portugal decided to create the "e-Planning Consortium" (www.e-planning.org). One of the first objectives was to build a new joint PhD program, which is currently offered (jointly) by 4 Universities in Portugal: UTL, UNL, UL, UA.

This short document summarizes the e-Planning research agenda. It is directly based on a paper Joseph Ferreira and I wrote in 2003 (Ferraz de Abreu, P. Ferreira Jr., J. "Towards a Research Agenda on e-Planning", MIT, 2003), and updated through discussion with the e-Planning Consortium Task Force during 2007 and 2008. That paper was used as the core substance of the new PhD program registered in 2009 in Portugal. It is therefore a good way to introduce e-Planning to interested researchers and PhD candidates.

e-Planning, an emerging field

The fast progress on information and communication technologies (ICT) enabled significant advances on both private and public sectors. In particular, new ICT brings new conditions for improving government (including e-Government), public administration and key services of public interest, whether provided by the state, civil society institutions or private enterprises. But new conditions bring also new problems and raise many new questions that go beyond using Internet for public services and re-shaping these services to better adjust to the new reality of the information society.
e-Planning is a new scientific area of inquiry that is emerging to address a substantive part of these issues. Its focus is to study and develop the interaction between ICT and Planning, which requires in-depth research and development on both ICT and Planning domains.

Planning is a wide-breath discipline, addressing from policy making to implementation, from institutional analysis to regulatory frameworks, from decision-making to public participation. Planning is therefore a key layer interfacing Government and Citizens, as well Government and Citizens' organized activity, be it for profit or non-profit, whether of social, economic or cultural nature. Such interface is the level where most new problems and questions arise, when we seek to introduce new information and communication technologies.

However, the scientific traditions on Planning differ considerably between USA and Portugal (and most EU). Unlike in the USA, there is no "School of Planning" in Portugal, where it is distributed by many different schools (Environment, Economics, Sociology, Architecture, Urbanism, Engineering). We see these different traditions as both a challenge and an opportunity for collaboration between the Portuguese Academia and other foreign institutions, such as MIT. By cross-pollinating both Portugal and USA scientific rich traditions that are its foundation, we will be in a position to give a unique and strong contribution to build the new, emerging e-Planning field.

This research agenda on e-Planning aims to address the new problems and consequent research questions emerging from the new technology context and its wide and deep impacts across all planning-related areas.

Issues and Research Questions

The challenges and opportunities brought by the new technology developments share some common traits on a global scale, and present some important specificities for Portugal.

Core Research Questions

Given the wide-breadth nature of Planning, it is important to identify a focus for the e-Planning agenda. We chose to consider the following key layers: Government, Governance, The City and Territory, Citizenship, and Planning Knowledge Infrastructure.

1. e-Government has emerged as a central policy of Public Administration both in the EU and US. Initially, we saw a multitude of independent initiatives towards improving the use of ICT in public services and administration, using the Internet to facilitate information access and automation of services. We have now the emergence of central plans and central authorities, even multi-national regional plans and agencies, which are developing e-government strategies and policies touching all sectors in society and all branches of government.

Some key examples are: the "e-Government Task Force for Ibero-American Countries", at the level of central ministries; the "e-Europe" initiative, adopted as policy by the European Council 2000 Summit in Lisbon, requiring "public administration at all levels to use new technology to give public access to information for all citizens, promoting, at the same time, on-line interaction among citizens and public administration". In the US, there are similar significant investments, as the NSF-funded "Digital Government" program and the US Federal government's restructuring efforts (Vice President Gore's 'Reinventing Government' project and the 'E-Government Initiatives' of the current Office of Management and Budget).

Inevitably, these "e-Government" efforts are impacting the agenda for what we call 'e-Planning'. Such a trend is forcing planners to look beyond the relatively simple examples of service automation or public access to government information. Will the centralized services move beyond efficient publishing and broadcasting, to promote meaningful dialogue among citizens and public/private interests?

2. The trend towards a more central role of technology in Government and in Planning has come, somewhat paradoxically, as the technologies have greatly enhanced the prospects for disaggregated spatial analyses and decentralized, community level planning. Reduced cost and improved technology has stimulated the rapid expansion of detailed, disaggregated data about land use and ownership, geography, infrastructure, environmental conditions, etc. along with new, sophisticated analytical tools and visualization techniques to make the best use of them.

This dual trend poses new intellectual challenges at community/neighborhood as well as city/global levels, and it raises research questions on a breadth of issues, with emphasis on Public Participation, Privacy, Security and Freedoms, Institutional reform, and Environmental–Health Planning. Furthermore, its study requires considerable knowledge and understanding of ICT's potential, not only of hardware and software, but also of powerful analytical tools, data mining, and communication strategies.

3. Technology is bringing to the table a new wealth of data and parameters, at multiple levels, that were not available to planners before. Besides the well-known issues of data filtering and evaluation, how does this data availability impact planning processes, levels and scope? How does it relate to the emergence of "neighborhood planning"? Can ICT facilitate de-centralization of urban revitalization and development efforts? Will it enable new forms of measuring the "performance" of a City, and of City Plans? Will these measures benefit 'outside' regulators or 'inside' residents and community organizations?

4. Technology is also the focus of attention in a world troubled with increased levels of insecurity and conflict / competition. How can Planning and IT contribute to a better grasp of the trade-offs among issues of security, human rights and freedoms? What are the new threats to privacy posed by the level of detail and accuracy of data collected in planning procedures and policy implementation? How does new ICT impact institutional capacity building, and enable different frameworks in the re-shaping of a new world order and new global institutional challenges?

5. Technology is facilitating citizen access to information, and information infrastructure, at levels never experimented before. But this new trend towards government centrality, and IT business consolidation, may inform citizens without empowering them. What forms of public participation in decision-making and the economy are sought, enabled or deterred by the new policies? Are current technology development policies favoring citizen participatory / entrepreneur models, or pushing back citizens to a consumer-only role?

6. Technology is rapidly changing the public administration landscape. How is it impacting institutions and regulations? Is the new technology challenging the current institutional and regulatory framework for plan-making and urban development? What are adequate paths towards institutional and regulatory reform?

7. New challenges in Planning, with or without an "e", cannot be understood separated from the challenges faced by the people that embody it. What is the role of a planner in this new scheme, between e-Government oriented policies and increased citizen pressure towards interactive planning? What new technology and analytical skills and competencies are required for the new generation of planners? How can we improve our current school curricula to correspond to these new requirements?

Specific Challenges in Portugal

Besides sharing the "core" issues with many other countries, Portugal is faced with its own specific facets of these problems. We identify the following ones as key examples of what we need to address:

1. Enormous shortcomings in the *Planning Knowledge Infrastructure*. One good measure of the challenge we face was the recent statement from the Secretary of State for Land Use Planning of the Portuguese Government, alerting for the fact that we do nott have proper cadastre information about who owns near 20% of the land in Portugal. In general, we have a deficient geo-referencing of core data and poor integration / articulation of the multiple data-bases and GIS at multiple levels. We need to "map the planning knowledge" of Portugal, making the best use of the ICT advances, and generate better tools for integration and analysis.

2. Deficient *Public Administration*. Despite multiple reform efforts, Portugal still has high levels of inefficiency in national and local public administration. In great need to reshape its procedures and technology, to bring the benefits of modern technology and simplified procedures to improve services and lower its costs.

3. An acute need to rethink the *Role of the State* and corresponding new *Public Policies.* We need to use technology to improve efficiency and security but without compromising our freedoms and rights; to promote a modern, informed citizen participation, without weakening our core democratic institutions (representative democracy); to fight the old social exclusion battles, still a priority in Portugal, but also the new increasing dangers of info-exclusion and market failures; to promote a market-driven economy but avoid the capture of the regulatory framework by special interests. One good example of a complex problem in a small economy such as Portugal's, is the dilemma for public policies either to facilitate concentration and national quasi-monopoles as a strategy to create dimension, scale, that is able to compete with the giant players within globalization, or instead to even the field, not favoring dominant market players but promoting effective use of the new technologies to facilitate alternative strategies of competitiveness.

4. *Loss of Competitiveness of our Cities*, including the Capital of Portugal, with corresponding loss of decision centers, in the general context of globalization but within the EU framework, and in particular in the context of Iberia. We need a bold vision for the city of the future, making the best of the opportunities brought by the new technologies.

5. *Weak Citizen Participation and Empowerment*. Portugal still has very low levels of citizen engagement in civil society, be it through NGOs, or participation in the political process, from elections to public consultation opportunities (environmental impact evaluation, master city and regional plans, etc.). This is an area where e-Planning-related research in Portugal has already shown a great potential for the role of the modern ICT promoting citizen meaningful participation and empowerment.

e-Planning Agenda

e-Planning knowledge infrastructure (e- infrastructures)	*Mapping of the knowledge society. Mapping of the planning knowledge. Develop the new ICT infrastructures and strategic frameworks*
e-Planning for the government of the future (e-government)	*More efficient and responsive government, closer to citizens; better enabling role; better services; better adjustment to the challenge and new potential of digital implementation of administrative procedures, beyond raw automation; two-way G2G, G2C, G2B.*
e-Planning for a new governance (e-governance)	*Foster institutional culture towards the common good, more equity and less exclusion; build strategic institutional capacity within globalized world; better institutions; better regulation framework and handling of market failures; better balance of security & efficiency vs. freedoms, liberty and accountability.*
e-Planning for the city of the future (e-city) and territory	*Build the cities of the future, as sustainable environments with new functionality that breed innovation; foster cities with better quality of life, more attractive and competitive; better spatial planning, promoting social and territorial cohesion, incorporating new structural impacts of ICTs.*
e-Planning for a new citizenship (e-citizenship)	*Enable a better informed and educated citizen, more participative, more critical, more responsible; better balance of technology challenges with ethics & individual freedoms & privacy.*