Outline

• Review readings
• Discuss Land use and transportation models \( (\text{LUT, LUTE, ..}) \)
  – Review evolution since 1950s
  – Compare comprehensive master planning and environmental impact assessment
  – Where do GIS, PPGIS, Web, crowd sourcing, ... fit in?
• Distinctions between
  – Planning vs. planning support systems
  – Planned vs. responsive cities
• Boston ‘MetroFuture’ example (if time)
Readings

Pitkin: “A Historical Perspective of Technology and Planning” (2001)

- Technology as savior
  - Mitchell, Negroponte, ...
  - Locational advantage of cities (Hall, Castells, ...)
  - Productivity paradox
- Technocratic ideology & ‘rational’ planner
  - Replace public debates with technical expertise
- Contrast with
  - Social constructivist camp
    - Technical innovation depends on social processes and adaptation
  - Advocacy planning
    - Political lobbying and community organizing
- Examples (with unintended consequences)
  - Energy technologies: decentralize the city, with side effects
  - Automobiles: suburban utopia until congestion and social inequities
  - Information technology: aid technocratic planning but ignores politics
Pitkin: “A Historical Perspective of Technology and Planning” - II

• Conclusions
  – Impact of technology on cities & planning is part of complex social process
  – Disparities may result from new technologies
  – Planners tend to ignore possibility of unintended consequences from technological innovation
  – New technologies can further planning goals by informing analysis and democratizing data

- **Changing views of computer-aided planning**
  - 1960s: applied science (optimization)
  - 1970s: politics
  - 1980s: discourse & communication
  - 1990s: collective design (reasoning together)

- **Evolving concerns**
  - 1960s: data & automation
  - 1970s: information & management
  - 1980s: knowledge & executive decision making
  - 1990s: intelligence & collective design

- **Corresponding conceptions of IT**
  - EDP (Electronic data processing)
  - MIS (management information systems)
  - DSS (decision support systems)
  - PSS (planning support systems) [...with GIS]
Ferreira, “Information Technologies That Change Relationships...”

• Data Sharing & Community Empowerment through IT
  – Problem with ‘spelling errors’
    • Can’t easily group & categorize parcel ownership
  – Three solutions
    • Top down, bottom up, and middle out
  – Implications
    • IT allows more promising organizational strategies
    • But less ‘automation’ and more ‘enabling’ requires a more sophisticated labor force and attention to learning paths
    • Access to technology is not sufficient to evolve patterns of use that can take advantage of it
Lee, “Retrospective on Large-Scale Urban Models,” 1994

• Earlier ‘Requium’ paper
  – Attacked ‘black box,’ ‘general purpose’ tool, and ‘command-and-control’ perspective

• How to judge models
  – Advancing theory vs. advancing practice
  – Distinguish strategic, tactical, and implementation planning

• Where do GIS and contemporary models fit
Land use and transportation models

• LUTE models: land use, transportation, and environment interaction
  – Review evolution since 1950s
  – Compare comprehensive master planning and environmental impact assessment
  – Where do GIS, PPGIS, Web, crowd sourcing, ... fit in?

• Distinctions between
  – Planning vs. planning support systems
  – Planned vs. responsive cities

• Boston ‘MetroFuture’ example (if time)
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