**11.520: A Workshop on Geographic
Information Systems**

**11.188: Urban Planning and Social
Science Laboratory**

Lecture 11: Internet GIS using Web Services & Project Feedback

Nov. 16, 2005, Joseph Ferreira, Jr.

Overview:

- Homework #3 due this Friday
- In-lab Test
- Lab #8 (geocoding) due next Wednesday
- Lab #9 (ArcIMS) is optional
- Get feedback on project proposal today
- Today's lecture: review and compare alternative internet GIS approaches using Web Services

ArcIMS demo from Monday's lab:

Connecting from ArcMap to ArcIMS map services on subway.mit.edu

- Instead of adding a shapefile or data table, use the 'GIS servers' option and add an ArcIMS server
- Specify the map server as subway.mit.edu:8080

* What's the difference between this way of access the data and loading the shapefiles directly from the ArcSDE server on bulfinch?

Connecting from ArcMap to WMS services at MassGIS

* Use the 'GIS servers' option and add a WMS server
* WMS = Web Mapping Service protocols developed by the [Open Geospatial Consortium](#))
* connect to: http://maps.massgis.state.ma.us/mapaccess/main.jsp?

A closer look at web mapping services using open source components

* 'Intelligent Middleware' project (MIT project of mine with MAPC, Brookings, Boston... participation)
  * Reinterpret 'official' city data using 'local knowledge'
  * Allow codification of 'local knowledge' separate from read-only 'official' data
  * Use web services and open source applications & protocols to make system modular with loosely coupled clients, middleware, and data repositories
* Web services using Minnesota Map Server + PostgreSQL and PostGIS (running on a Linux PC)
* Illustrate key ideas and examples using a spreadsheet that calls the web services and displays the results

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