



SAVI Web Interface

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The SAVI Web Interface

A prototype web-based interface that allows users to query GIS-enabled data about Indianapolis, that:

- ◆ Currently uses the Social Assets and Vulnerabilities Indicators (SAVI) database.
- ◆ Is a component of the Electronic Atlas of Central Indiana, which we will link to ECAI.



SAVI Web Objectives

- ◆ To increase accessibility and usability of SAVI database.
- ◆ To provide ability to perform data queries that are dynamic and data driven.
- ◆ To provide ability to perform relative analysis of data layers.



Development Activities

- ◆ **Spring/Summer 1999**
 - Design input from initial advisory meeting
 - Development of functional specifications
 - Exploration of capabilities of MapObjects IMS versus Arc IMS
 - ◆ Assistance from ESRI
 - ◆ Prioritization of functionality
- ◆ **Fall/Winter 1999**
 - Prototype design and development
 - Metadata design and development
 - Prototype review by advisory groups
 - Usability testing
 - Graphical design



Advisory Groups

◆ User community

- Community Planners
- Human Service Planners
- Religious Leaders
- Governmental Officials
- Educators
- Scholars (Geography, Urban Planning, Sociology, etc.)

◆ Data source providers



SAVI Web Functions

- ◆ Graphical and tabular data display
- ◆ Data query based on feature attributes and location
- ◆ Data download
- ◆ Metadata display
- ◆ Online Help
- ◆ Single address geocoding



Query Builder

- ◆ A query builder has been developed to support the following five types of queries:
 - Selection of sites based on attributes
 - Selection of areas based on attributes
 - Selection of sites relative to areas, and attributes of both
 - Selection of sites relative to sites, and attributes of both
 - Selection of areas relative to areas, and attributes of both



Post-Prototype Functions

- ◆ Hotlinks to other data and/or websites
- ◆ Multiple Address Geocoding
- ◆ Wizards
- ◆ More Error Trapping
- ◆ More On-line Help
- ◆ Time series animation
- ◆ Interface to RDBMS data source
- ◆ Interface to raster data



Future GIS Functionality

- ◆ Distance Mapping
- ◆ Map Overlay to Determine Site Suitability
- ◆ Proximity Mapping to Define Service Areas
- ◆ Network Analysis to Determine Site Accessibility
- ◆ Population Density Mapping
- ◆ Ranking
- ◆ Path Analysis



Development Software

- ◆ Map Objects versus Arc IMS
- ◆ Visual Basic 6.0 versus Java
- ◆ HTML versus XML



Programming and Design Issues

- ◆ Limited Color Palette
- ◆ Browser Compatibility
- ◆ Printing
- ◆ Use of Frames



Data Representation

- ◆ Aggregation unit
- ◆ Normalization
- ◆ Legend gradients



Documentation

- ◆ Metadata
 - FGDC
 - Dublin Core
 - Simple
- ◆ Disclaimers
- ◆ On-line Help
- ◆ Tutorials (future)



Suitability of Data

- ◆ Why was the data developed?
- ◆ How was the data developed?
- ◆ What source documents were used to develop the data?
- ◆ How dated is the data? And the source documents? Who developed the data? Qualifications?
- ◆ What is the format of the data? Can it be converted cleanly?



Suitability of Data (cont.)

- ◆ What nongraphic data is incorporated?
- ◆ What scale was the data developed? Is this acceptable?
- ◆ How accurate is the data? Is this accuracy level acceptable?



Suitability of Data (cont.)

- ◆ Is the data maintained? How often, and how much?
- ◆ What system was the data developed on?
- ◆ What system was the data delivered to? Should existing data be incorporated?
- ◆ Should existing data be replaced?
- ◆ How should links be created?