Introduction

Online maps and interactive visualizations are increasingly important tools in an ever changing world of technology for colleges and universities to promote their trademark and to attract potential students. Campus visitors, Facilities and Operations, Public Safety, and emergency responders benefit from up-to-date dynamic infrastructure maps accessible anytime on any device using an Internet browser. Online mapping aims to do all that and more.

The Westfield State University Web GIS is a comprehensive student-led effort developed using the web-based ArcGIS Online for Organization platform by Esri. Phase 1 of this project (Fall 2012) included conducting stakeholder surveys and data collection, followed by data analysis, online mapping, and the development of a prototype Web GIS as Phase 2.

- Current and prospective students can now take interactive 3D virtual tours of the campus and surrounding areas to find the location of food services, hiking trails, reliable car mechanics, and much more.
- Campus visitors, parents, and members of the community now have access up-to-date information about events, parking, and campus resources.
- Facilities and Operations staff can easily locate, maintain, and inventory campus infrastructure (including signage, fire hydrants, recycle bins and more) using basic tablet computers or smart phones.
- Emergency responders will be able to evaluate building safety buffers, locations of hazardous materials, building exits and characteristics before arriving on-scene.

Post-deployment stakeholder surveys and training in collaboration with campus Facilities and Operations and Public Safety staff in Spring 2013 (Phase 3) will assess the effectiveness of the prototype Web GIS and is anticipated to result in the development of additional data sets, interactive map services, and online maps for a variety of audiences on and off campus. The official launch of the Westfield State University Web GIS (Phase 4) is planned for April 2013 complete with the necessary improvements.

We anticipate that this type of student-led, project-based learning can serve as an example for other colleges and universities because it provides, with minimal resource investment, a tangible outcome for students while creating a desirable and helpful tool for people of the campus.
Locate Westfield State University WebGIS

1. Navigate to Westfield State University's Web GIS in an internet browser such as Google Chrome or Mozilla Firefox:  http://westfield.maps.arcgis.com/home/index.html
2. In the middle of the page you will see a variety of maps available in the Web GIS.

3. To view the maps available to you, use the double arrows on each side of the maps to scroll through the options.
4. View a map by clicking on the thumbnail image for the map. The map will open automatically in an application.

Navigate the Map

1. Zoom in and out using the plus/minus on the top left side of the map.
2. Navigate the map but clicking and dragging the image in the direction of choice.
Getting Information about the Map

The Web GIS contains multiple data layers, each symbolized differently. The legend will show you what is shown on the map.

1. On the side panel, the legend will be displayed with map information.

2. The legend will display the data layers that are checked on and will tell you how they are symbolized in the map.
3. Click on any symbol on the map to view the name and other information in a pop-up window.
Changing the Map Contents

There are many layers available to view in the Web GIS maps.

1. On the toolbar, locate the Layers button.

2. This shows the layers available to view and turn on and off based on what you are looking for.
3. Check and uncheck the boxes next to the layer names to turn on and off the data.
4. Some maps also have a bookmark tab in which you can locate features off campus.

Changing Map Properties

1. Locate the basemap button on the top tool bar. Notice and investigate the different basemap available to change the map contents.
Available web maps for Westfield State University

There are several maps available on the Westfield State University Web GIS to view:

**Infrastructure and Attributes on Campus:**
- **View:** Bike Racks
  - Campus Buildings
  - Emergency Call boxes
  - Mailboxes
  - Seating
  - Shuttle Stops

**Living Essentials:**
- **View:** Coffee Shops
  - Department Stores
  - Gas Stations
  - Grocery Stores
  - Pharmacies
  - Restaurants

**Locations off Campus:**
- **View:** Area colleges
  - Car Services
  - Gas Stations
  - Hair Salons
  - Liquor Stores
  - Museums, sports and movie cinemas
  - Tanning Salons
  - Westfield Services

**Owl Bucks Acceptance Locations**

**Recreation and Trails around Campus:**
- **View:** Environmental Science Trails
  - South Lot Trails
  - Sports Facilities
  - Stanley Park Trails

**Services and Attributes on Campus:**
- **View:** ATMs
  - Campus Food Services
  - Parking
  - Smoking Gazebos
  - Sports Locations
  - Theaters

**Things to do off Campus**
- **View:** Bars
  - Clubs
  - Coffee Shops
  - Department Stores
  - Gyms
  - Museums, sport locations and Movie Theaters
  - Restaurants