

## Project Year

2010

## Project Team

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## Project Title

Population and Health World View

## Audience

Students in the course Population, Health and Development (230.225)

## Pedagogical Issue

To facilitate learning students in the class are divided into groups that represent world regions. They collect and analyze data for their region and ultimately share their findings, which include pictures, video, and charts, with the rest of the class. What is needed is a means of capturing the information in one application that the individual students and groups can all access, and can be used to share the information with the entire class.

## Solution

By capturing the information in an interactive map, students can upload their data to their respective regions, and then explore the population statistics of the regions at once in a vivid spatial format. A dynamic color-gradient map will illuminate the variations in population and health indicators around the world within each unique geographical landscape, and students analyze their region's data and contrast it to other regions in a coherent presentation to the class. Together, GIS and the ArcGIS Explorer provide an ideal platform for students to interact with this data and express a variety of cross-regional analyses through their class presentations.

## Technologies Used

Arc View GIS, ArcGIS Explorer

## Project Abstract

"Population, Health, and Development," offered to undergraduates at JHU, covers major world population changes in the past century, as well as contemporary affairs and projections. Students in this course explore a range of health and population data such as death and birth rates, contraceptive methods, child survival programs, and urbanization.

To facilitate learning, students are divided into groups that represent a specific region of the world such as Western Africa and Eastern Europe. During lab each week, students analyze indicators for their region (e.g. migration rate, percent living with HIV/AIDS). They rank countries by their value and create a scatterplot against the GNI to show the relationship and reveal outliers within each region. This way, every student in the course is acquainted with the data in their assigned region, and they eventually share this information with the rest of the class so that the full story of population and health patterns comes to life on the world scale.

Our technological initiative aims to capture this information within an online interactive map so that students can collect their data - which includes pictures, video, and charts – in their respective regions,

and then explore the population statistics of the regions at once in a vivid spatial format. This dynamic color-gradient map will illuminate the variations in population and health indicators around the world within its unique geographical landscape, and students analyze their region's data and contrast it to other regions in a coherent presentation to the class. Together, GIS and the ArcGIS Explorer provide an ideal platform for students to interact with this data and express a variety of cross-regional analyses through their class presentations.