Mapping for Social Good

Course Description

Maps are said to make the invisible visible. For someone who is interested in social change, this leaves a lot of potential! In this course we will think critically about geospatial data and map production 'behind the scenes'. Case studies and real-world applications of maps created to address issues surrounding social and environmental equity across various contexts will be featured each week. You'll also be introduced to how crowdsource mapping is improving patient health in Ghana and how visualizations are shifting US policies. If you're passionate about using maps as a tool to ignite change, this is the course for you!

Do you want to learn a specific topic or skillset? You can play an active role planning the course content by sharing your input in the collaborative syllabus building activity. Don't wait, signup now to participate!

Learning Objectives

By the end of the course, the participants will be able to:
- Prepare data for mapping
- Create a map that best displays data with as little distortion as possible
- Select a digital mapping tool for a particular program or visualization
- Design a project or research with mapping integrated throughout
- Evaluate how mapping tools are utilized in your field of interest

Course Activities
- Create a basic map of Ghana's population by region
- Create a map using OpenStreetMap (OSM) toolset(s)
- Engage in peer discussions, live events and forms

Course Schedule

Here is a tentative course schedule:

Week 1: Overview of Mapping: Basics of Digital mapping and Spatial Thinking

Welcome to Week 1. We are excited to have you a part of the course! This week we will look at maps through a 'spatial lens' to understand how data is collected, to choose the best projection for a particular geographic area, and to apply this knowledge in creating

your own map! Resources, articles, case-studies and step-by-step manuals will be included on the course content page.

- Thinking spatially
- Basics of geodata and data collection
- Basics of visualizing maps and projections
- Open Source Mapping Tools

Week 2: WASH, Agriculture and Environmental Mapping
Moving beyond built environments and human geographies, lets take a look at physical and natural landscapes! This week we will focus on environmental issues surrounding water, land use, and climate change to name a few. We'll see how mapping tools are used in visualizations in addition to various open source tools.

- Water, sanitation and hygiene (WASH)
- Agriculture, land use and watershed mapping
- Climate risk assessments
- Application of Open Source mapping tools

Week 3: Human, Social Networks and Urban Mapping
Now that we've gained a strong foundation in spatial thinking and geodata 'behind' maps, lets look at how these tools are applied across human and social contexts! This week we will look at how maps are used in hot spot analyses, monitoring crime and in urban development. We will apply these concepts by using one of your favorite open source mapping tools!

- Violence hot spot analysis
- Crime mapping
- Crowdmapping and spatial analysis
- Application of Open Source mapping tools

Week 4: The Future of Mapping and Social Good
Where is mapping headed? We'll discuss futuristic ideas and innovative topics happening right now with mapping technologies. This includes 3D visualizations, social mapping networks, drones and teaching GPS/GIS technologies in the classroom. We're excited to wrap up discussions and begin conversations to think intentionally about the use of maps for social good.

- Drones/UAVs and Mapping
- Network Mapping
- Integrating mapping into the classroom and teaching methods
- Future of mapping applications