

Geographic Information Systems (GIS) for the Humanities and Social Sciences
A Harvard Center for Geographic Analysis Workshop
Friday, December 1, 2023

This workshop will introduce GIS concepts, spatial data, cartography, and spatial analysis that are relevant to those working in the humanities and social sciences. Students will use QGIS, Google Earth Pro, and ArcGIS Online to make maps, perform analysis, and publish the results. Students are expected to bring a laptop running Windows or MacOS to perform the exercises on.

The workshop will be held in person in Room S020 (Belfer Case Study Room on the Concourse level) in the CGIS South Building at 1730 Cambridge St., Cambridge, MA.

Lunch will be at the Law School cafeteria, at 1585 Massachusetts Ave. We'll walk there as a group.

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Workshop data location: <https://gis.harvard.edu/event/gis-humanities-and-social-sciences-fall-2023> click the "Download Workshop Materials" link.

9:30 - 10:00	Introductions and research interests Introduce yourself, your research, and why you are interested in GIS.
10:00 - 10:15	Workshop Introduction (lecture) Jeff will provide an introduction to GIS concepts, software, spatial data formats, basic cartography, spatial analysis and web map publication.
10:15 - 12:15	Desktop GIS: General reference map creation (hands on) First hour: Introduction to QGIS software demo; students create a general reference map. Second hour: QGIS map Layout demo; students work with map Layout.
12:15-1:15	Lunch Break (lunch will be provided)
1:15 - 3:00	Thematic Mapping and Web GIS (lecture, hands on) Jeff will lecture for 20 minutes on thematic mapping and spatial analysis. Then students will create a variety of thematic maps using QGIS and ArcGIS Online, an interactive web mapping platform. Students will perform address geocoding, data upload and symbolization, and explore several of the spatial analytical features within ArcGIS Online.
3:00 - 3:30	Spatial analysis with QGIS (hands on) Students will perform a spatial analysis overlay task in QGIS, answering the question: How many airports are in each African country?
3:30 - 4:15	3D Visualization and Animation in Google Earth Pro Students will use Google Earth Pro to do geo-referencing, tour creation, and 3D visualization.
4:15-4:30	Summary and conclusions

