



## **Fieldwork online: a GIS-based electronic learning environment for supervising fieldwork**

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Fieldwork comes in many forms: individual research projects in unique places, large groups of students on organized fieldtrips, and everything in between those extremes. Supervising students in often distant places can be a logistical challenge and requires a significant time investment of their supervisors. We developed an online application for remote supervision of students on fieldwork.

In our fieldworkonline webapp, which is accessible through a web browser, students can upload their field data in the form of a spreadsheet with coordinates (in a system of choice) and data-fields. Field data can be any combination of quantitative or qualitative data, and can contain references to photos or other documents uploaded to the app. The student's data is converted to a map with data-points that contain all the data-fields and links to photos and documents associated with that location.

Supervisors can review the data of their students and provide feedback on observations, or geo-referenced feedback on the map. Similarly, students can ask geo-referenced questions to their supervisors. Furthermore, supervisors can choose different basemaps or upload their own.

Fieldwork online is a useful tool for supervising students at a distant location in the field and is most suitable for first-order feedback on students' observations, can be used to guide students to interesting locations, and allows for short discussions on phenomena observed in the field. We seek user that like to use this system, we are able to provide support and add new features if needed.

The website is built and controlled using Flask, an open-source Python Framework. The maps are generated and controlled using MapServer and OpenLayers, and the database is built in PostgreSQL with PostGIS support. Fieldworkonline and all tools used to create it are open-source.

Experience fieldworkonline at our demo during this session, or online at [fieldworkonline.geo.uu.nl](http://fieldworkonline.geo.uu.nl) (username: EGU2016, password: Vienna).