



Master Topic: Visualizing Language Ranges for a Web Atlas

Short description

There are two big databases of the languages of the world: Ethnologue (Eberhard et al. 2021), a paywalled publication documenting the language distribution of the world including polygon data but no academic references; and Glottolog (Hammarström et al. 2020), which started as an academic bibliography about the languages of the world and their classification and contains point locations for most languages, but no speaker counts or ranges.

For working with worldwide language samples that take into account geography, this situation is deeply dissatisfying. The GIS unit has initiated the “Glottography” project to collect published geographical distributions of languages and present them in a unified manner. As part of the project we want to publish a web atlas of language ranges.

Many linguistic publications contain language maps, from hand-drawn sketches of approximate village locations on top of simplified base maps to highly detailed range descriptions created by GIS professionals. However, it is unclear how to style a web atlas for worldwide language ranges.

The visualization options for web atlases were already quite mature ten years ago (Ortner 2011). However, existing research comparing styles of language maps is somewhat limited (Luebbering 2011; Luebbering et al. 2013; Haynie & Gavin 2019), and comparisons evaluating different schemes are severely lacking. In particular, it is unclear what styles would be appropriate for a web atlas, which allows dynamically zooming between different levels of detail. A further complication is maintaining clarity while the user switches the focus of visualization on a specific region, a specific language (or group of related languages), or a specific source map.

As such, the goal of the thesis is to derive recommendations or even implement concrete WebGIS styles for language mapping based on the existing literature and new qualitative evaluations. The work contributes immediately to the Glottography web atlas currently under development.

Contact

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