Warping Polygons with the Relational Reprojection Platform

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ABSTRACT:

After presenting a research paper on the Relational Reprojection Platform (RRP) at the 2023 UCGIS symposium at Yale University, the authors would like to briefly update the group on a recent development they have made to their interactive non-linear distance transformation tool (written in R and running as a Shiny app): the addition of polygon transformation to allow the warping of underlying contextual layers (serving as pseudo-basemaps) for the azimuthal projections that the tool generates. Where previous versions of RRP allowed for point transformation using a variety of distance transformations (e.g. square root, cube root, logarithmic, and custom), without correspondingly reprojected polygons, interpretation of the ensuing maps could be challenging for people not very familiar with the study area. Examples will be presented including a reimagining of a Smithsonian Magazine map of climate migration after Hurricane Katrina using the RRP to create a Louisiana-centered map projection with a cube root distance transformation. The lightning talk will conclude with inviting the audience to test the tool themselves with a link to our public GitHub repo.

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