

ReLinker Statement of Characteristics

Seeing how natural disasters can affect transportation, our web app ReLinker accepts user inputs for hazards within a study area and calculates the safest route for evacuation, supplies, and rescue. Our app ensures rapid communication in the event of a disaster and getting disaster relief to remote communities as fast as possible.

Relinker is an integrated solution. An ArcGIS Survey 123 web form allows users to easily input their volunteered geographic information (VGI) to the ArcGIS Online cloud. By submitting responses, users provide emergency management groups with vital data, while also helping to power the ReLinker app. As more VGI is collected from users, hazard points appear on the web app. Using the ArcGIS REST API, ReLinker automatically provides users with the most direct route between locations, while also avoiding any hazards that have been submitted. Other navigation tools may find the most direct route, but they are not aware of on-the-ground hazard locations that might make these routes unfeasible. ReLinker is designed to update hazard locations in real time, avoiding the many dangerous and unnavigable paths that appear during disaster, as road infrastructure becomes crippled and routes close off.

Relinker was designed to be easily deployed when disasters occur, with minimal editing required. Emergency management groups simply need to provide hyperlinks to their own ArcGIS Online data, and ReLinker will help turn those hyperlinks into road links.