Geofairy is a mobile app developed by the Center for Spatial Information Science and Systems at George Mason University. Geofairy succeeds to collect and display nine kinds of the mostly used geospatial information: vegetation, weather, precipitation, atmosphere, soil moisture, altitude, agriculture, land cover and land use.

The information comes from different data providers, e.g., NASA, NOAA and Google. Geofairy performs as a hub gathering and reformating information and sharing with users in an intuitive style.

It supports users to view information in three modes: table, chart and map. Geofairy involves eight public datasets and more than 100 data layers nearly covering the whole globe, including most developing countries.

For developing countries where geospatial information is hard to retrieve, Geofairy allows them to monitor the measures of the environment, provide timely and accurate measures of the environment, provide timely and accurate actions to prevent or remove the possible bad consequences.

### Methodology

We propose a general mobile framework which makes it easy to plugin various geospatial datasets and provides users with a flexible and customizable interface on mobile phones to acquire geospatial data and understand the contained information.

### Implementation

We implemented the framework into a mobile geospatial information sharing system - Geofairy. The used programming languages and tools include the GFSC Discovery and Access Broker (DAB), Cordova, HTML5 and CSS3, jQuery mobile API. Netbeans IDE, Eclipse Kepler IDE, Jsfiddle, Java, Openlayers (all the maps in the mobile app are overlaid as WMS or TMS layers in OpenLayers).

### Conclusion

This study proposed a specific solution framework for the heterogeneity problem when combining isolated datasets from different providers. A mobile platform system, Geofairy, is developed and published to realize the framework. It successfully proves the practicability of the framework. We also evaluate Geofairy by comparing with a famous existing geospatial information mobile app. The results shows that Geofairy has some significant advantages which may greatly enhance the capabilities of geospatial information distribution and sharing platforms.

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