OpenIR

Infrared for Everyone

The DuKode Studio
MIT Media Lab
INFORMATIONECOLOGY

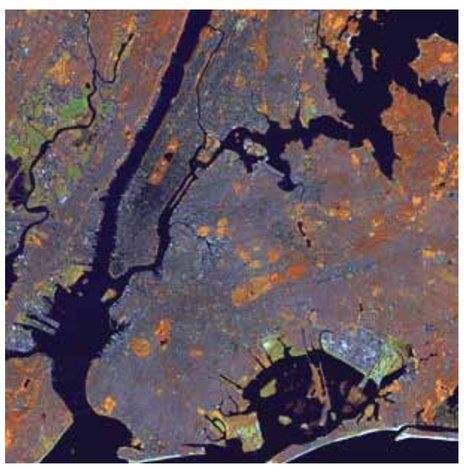
The Problem:

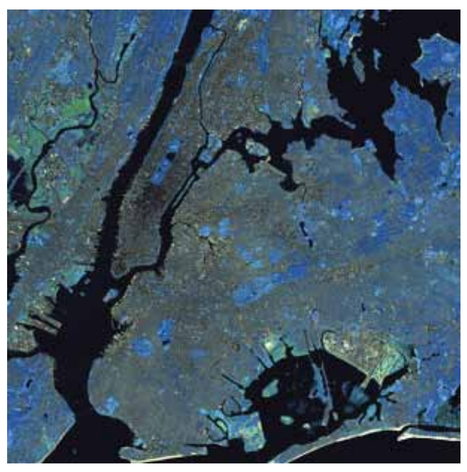
Our map systems don't tell us much about our environment.

Most mapping applications use line-based street maps or true (visible) color satellite data as base layers. When people create their own map data, these base layers are of limited use.

(source: http://nycsevereweather.crowdmap.com)

Take, for instance, this dataset of NYC hurricane evacuation locations.

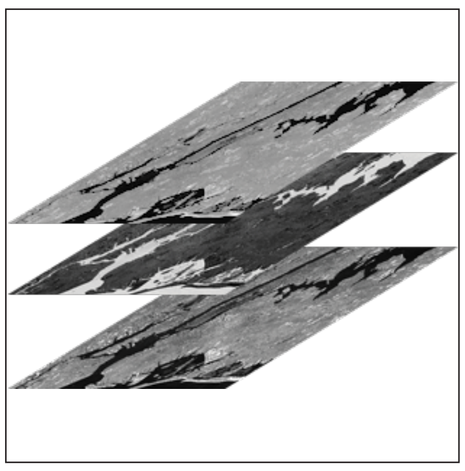




Infrared satellite data, collected outside of the visible spectrum, can give much more information about environmental features like vegetation, soil, water, and buildings. This data, combined with user observations, can make for powerful visualizations. Much of this data is freely available, but not easy to access or view.

The Solution:

OpenIR shows environmental infrared maps, on-demand.



Raw IR Layers

Composited to show land use

Projected in global system

Compiled with user data

Delivered to user devices!

Open Infrared, or OpenIR, is a system that makes infrared satellite data accessible for immediate use in commonly used mapping applications. Members of The DuKode Studio and the MIT Media Lab are working to process infrared data from sources like UMD's Global Landcover Facility, then serve and annotate it it via mobile and web clients. By democratizing infrared data and facilitating its access by environmental analysts, land-use planners, crisis responders, and tech activists, OpenIR will empower previously unexposed populations as stewards of the earth on which they live.