DigitalGlobe Crowdsourcing

RAPID, RELIABLE, HUMAN INSIGHT FROM TRILLIONS OF PIXELS.

DigitalGlobe’s satellite constellation collects millions of square kilometers of earth imagery every day, gathering amazing high-resolution data about our planet. To gain actionable insight about important locations, objects, and events across the globe, our crowdsourcing platform taps into an online network of thousands of imagery analysts. Using an intuitive web interface and advanced geospatial consensus algorithms, the DigitalGlobe Crowdsourcing platform transforms pixels into answers.

Features & benefits

Human insight
Effective imagery analysis relies on the unmatched perception and intuition of the human brain. We excel at identifying events that look “interesting,” objects that are “new,” or that seem “important.” Tapping into a massive human network is the best and most reliable method for understanding what imagery tells us about the world.

The wisdom of the crowd
Everyone makes mistakes. But when consensus emerges between tens or hundreds of individuals, all pinpointing the same feature in imagery, we extract true insight from crowdsourcing. DigitalGlobe Crowdsourcing gathers inputs from a crowd of, independent humans and identifies the locations of maximum agreement. Our CrowdRank™ algorithm figures out the reliability of each person in the crowd and statistically determines the most relevant locations.

Scale and speed
Exploiting satellite imagery with human analysts is an expert process that takes time. By applying hundreds or thousands of people to the problem, DigitalGlobe Crowdsourcing increases the scale and speed of analysis immensely, while still retaining the accuracy of human insight. Now it is possible to analyze 100,000 square kilometers of imagery in a single day—a task that might take a single analyst weeks.
Custom insight
DigitalGlobe Crowdsourcing is flexible to extract custom features from imagery. Examples include:

- Buildings: homes, commercial, construction sites, religious sites, facilities, damaged buildings
- Infrastructure: roads, trails, bridges, parking lots, ports
- Objects: vehicles, crowds, vegetation, crops, debris
- Events: fires, floods, protests, change detection

Crowdsourced insight provides analytics-ready information layers and powers customer solutions in verticals including:

- Humanitarian assistance & disaster response
- Insurance & reinsurance
- Defense & homeland security
- Oil & gas exploration
- Infrastructure & supply chain monitoring

Delivery methods
- Web Feature Service: WFS
- Shape files
- KMLs
- Spreadsheet
- Custom analytics reports
- GeoJSON

Case study
Haiyan typhoon
In November 2013, devastation hit the Philippines when Super Typhoon Haiyan made landfall, becoming the strongest typhoon ever recorded in terms of wind speed. DigitalGlobe satellites immediately began to document the devastation, capturing over 100,000 sq km of imagery. DigitalGlobe Crowdsourcing used this real-time imagery to map thousands of affected locations and rapidly assess the damage. Within minutes of getting access to imagery, DigitalGlobe Crowdsourcing was providing support to first responders, humanitarian groups, and reconstruction efforts.

Learn more at: https://www.digitalglobe.com/super-typhoon-haiyan

Typhoon Haiyan crowdsourced support statistics

- 4,664 Individual Taggers
- 408,710 Tags
- 39,116 Damaged Large Building
- 104,039 Damaged Residence
- 177,454 Major Destruction!