Crowdsourcing and citizen reporting of incidents are becoming increasingly common, with applications ranging from air-quality monitoring to building a database of all the Automated External Defibrillators in majority (www.uphs.upenn.edu/news/News_dossiers/2011-12/airquality-map-challenge). To protest movements, political activism and citizen journalism, as witnessed in the 2011/2012 “Occupy Movement” and “Arab Spring” events.

A comprehensive review of the main technologies and standards involved in this domain was published in the International Journal of Health Geographics in December 2011 (dx.doi.org/10.1186/1476-072X-10-467). This article, however, focused on the use of “crowdmaps” for visualizing crowdsourced data.

Crowd-generated reports and other material often produce Big Data: large, continuous streams of data that pose major challenges when trying to visualize, understand and make sense of them, particularly when attempting to do so in real time. This article presents several examples of crowdmaps, covering a diverse range of topics in which the spatiotemporal distribution (and content) of the corresponding crowd-sourced data are displayed on a familiar, interactive (geographic) map interface.

For readers interested in building their own crowd-sourced maps, three dedicated crowdmapping technologies will be examined: Early Warning System, Flockhub (pronounced “flock hah!”), mapping tools, and the Ushahidi/Crowdmap platform.
Crowdsourced Real-Time Radiation Maps of Japan

In this era of the "Internet of Things," it's becoming increasingly common to find volunteer citizens using various types of Internet-enabled sensors serving different purposes, such as distributed radiation sensing and environmental pollution monitoring. Such Internet-connected sensors can be embedded in smartphones (many of the latest smartphones already include a range of useful sensors, and they can detect and automatically attach geolocation information to reports and other data sent by users) or provided as special devices (such as Bluetooth, WiFi or other means of communication to map and upload measurements to the Internet, either directly or via a nearby suitably equipped and Internet-connected computer or smartphone) to be worn or carried around by users, fixed somewhere in their living spaces, or mounted on a bicycle or car.

Pachube (https://pachube.com) is an online database service allowing developers to connect sensor-derived data to the Web and build their own (mapping) applications based on the data. Users can rely on Pachube's mapping tools, such as the Earth Browser app (uses the Google Earth plugin to view maps in 3D), to visualize crowdsourced sensor data or develop their own mapping solution to display and display live (geocoded) data feeds from Pachube.