“The advent of global mass communication through mobile technology is already unlocking the potential for both the passive and the active crowd to enrich geospatial data. Examples, such as the Haiti earthquake, where volunteers helped to enrich other sources of information and fill the urgent need for data, are well known. However, the potential is enormous and will increasingly be realised over the next decade.

Whilst in some countries the availability of crowdsourced data may be an addition to a wide range of other sources of geospatial information, in others it may be an essential ingredient for social and economic development, particularly in areas where no or only limited other data is currently available.

As well as generating data, VGI can act as a valuable mechanism to encourage public participation and engage and empower citizens. Again, in countries where other sources of data are less readily available, this public participation may be a necessity as opposed to a choice.

In areas that currently lack any detailed geographic information, a user‑led approach may enable a basic amount of geographic information to be gathered, thus enabling some of the benefits to the development of the economy and public services that such an information base can provide to be realized earlier. Such an approach should not be considered a replacement for sustained funding to enable a comprehensive national mapping programme; nevertheless, the generation of such information could at least create an initial source layer and, in time, be used to complement any further information that may be collected by an NMCA.

It is worth noting that countries that develop geospatial information bases in this way may be in a position to lead the way in exploring how VGI and crowd sourced information can best be integrated with government‑maintained geospatial data.

A further benefit of VGI and of active crowdsourcing will be as an educational tool, teaching citizens the value of geospatial information in daily life. As community knowledge systems are built on this information, citizens will experience the value of geospatial information in a more direct and first‑hand way, potentially reaping direct and significant benefit from geospatial information that they themselves have helped to generate.

In those countries where well‑established geospatial sources are already available, VGI and crowdsourced data is likely to include valuable additional information, which would fall outside the scope of most government data collection specifications. This data has the potential to provide a user’s view of their geography, which if used by policy and decision‑makers, could potentially allow for more effectively targeted interventions and more tailored public services…”

“…Semantic technologies will play an important role when it comes to publishing and making sense of this data, offering the opportunity to create rich machine‑processable descriptions of data. This will enable knowledge sharing and re‑use in addition to data sharing and re‑use. It is expected that data will really start to show its true value when it is combined with other data sources. Location will provide a key underpinning framework to the Web of linked data, providing an essential information hub that brings many datasets together.

The network of tomorrow, built on an increasing number of sensors and thus increasing data volumes, will produce a hyper‑connected environment or ‘Internet of Things’, with estimates of over 50 billion things connected by 2020. The ‘omnipresence’ of geospatial information5 in our lives, whereby almost all pieces of data have some form of location reference, will continue, with location providing a vital link between the sensors that will generate the Internet of Things and the Uniform Resource Identifier (URI) assigned to a thing or object within that connected world of things. In order to maximise usability this will drive the demand for informative standardised metadata as part of geospatial data…”