

Google Earth, Virtual Earth, handheld GPS devices and mobile phone navigation has taken spatial information from the professional's desktop into the houses, cars and palms of millions of new users, creating a new global awareness of spatial data and global positioning. Never before have so many people been aware of spatial products and the value they can add to their lives.



The new mass market has driven the spatial industry to serve data faster, create higher resolution data, create "easy-to-use" viewing platforms, create new products and applications while stimulating new technologies and faster

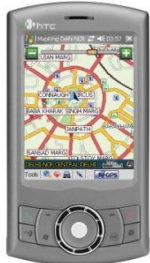
production lines to satisfy the ever growing demand.

Many thought the spatial industry would collapse with the introduction of free spatial data easily accessible via platforms such as the internet. The industry had to adapt to the new customer base with high demands and expectations. The spatial industry took a while to respond to the new market and applications and with a few *bumps in the road* the industry managed to re-align itself and to fulfill market expectation with exciting new products and applications. The spatial industry has never experienced such wide exposure and has boomed with the introduction of Google Earth and many other exciting new applications.



Data capture utilizing traditional methods, such as photogrammetry, digitizing & traditional survey methods are long and labour intensive tasks. Geospatial professionals spent more than 20 years capturing reliable, accurate databases with extensive coverage to form a solid foundation for the next generation of data. The introduction of new technologies with faster data capture capabilities (e.g. lidar for elevation data, gps for positioning), allows an fairly inexperienced person to capture data while the professionals can concentrate on the more complex data analyses, integration & development.

New users have driven the market to develop intuitive software which can be operated in an hour without any formal training. The software has developed with a more user friendly interface, integrated GIS terms into the English language and has lead to a DIY GIS environment where the user can satisfy their own basic needs without necessarily being an expert in the field.



Merging data from different technologies, such as GPS, mobile phone and internet based packages,

has become an everyday action. Users no longer need to undergo a week's training in the software or understanding of the technologies to find their way around.

These new developments have allowed the professionals to assist with data management, serving the data and combining data from various sources allowing users to apply different technologies to capture the data required. A perfect example of what is happening in the industry and the changes that have taken place is the development of the *Street Bump* application for smart phones.

The City of Boston has recently launched a competition to refine their *Street Bump* Applications that will allow Smart phones to record bumps and potholes in the city streets.

The *Street Bump* application utilizes the GPS functionality and accelerometer to collect the phone's location, orientation, speed, bearing and acceleration to establish where the potholes and bumps are located. The phone can be setup to play sounds, show bubbles, graphs or text to view the recordings. The user acts as a volunteer by sending the data to the city for processing to assist with the location of the problem areas.

Currently the *Street Bump* application is still in the testing phase, but this is a good indication of how the new mass market has driven the industry to become more innovative and to incorporate different technologies and methodologies for data capture and incorporation.

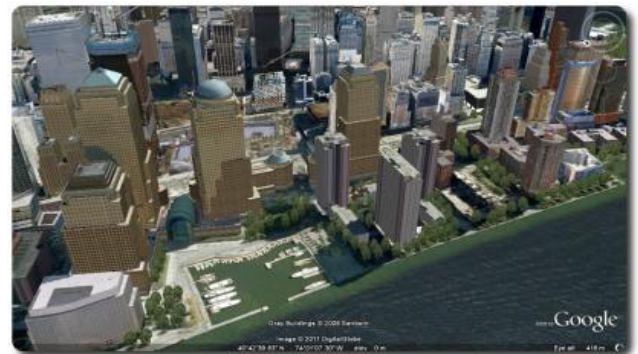
The geospatial industry is not the same place it was 10 or even 5 years ago. The market is driven by customers who are innovative, map-literate and fully aware of the potential applications. Clients can now capture their own data, with their preferred technology, allowing the professionals to design, merge and structure their data.

Eight years ago 85% of GIS users were traditional GIS Analyst and Consultants. Today less than 20% of GIS users are GIS Analyst and Consultants. The spatial industry has moved from the desktop to the palms of nearly every world citizen.

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Aerial Survey

Cartography

GIS/CAD

Oblique

DEM/DTM

Contours

Orthophoto's

