

# Technology vs. the Human Mind

By Rahim Jiwani

**O**n May 20-22, 2007, GISTEC hosted the second annual GISWORX conference in Dubai, United Arab Emirates. The conference offered a unique in-depth learning environment on different aspects of geographic information systems (GIS) designed for both beginners and advanced users, and featured many industry experts. This year, the GISWORX conference offered around 50 focused workshops on topics covering GIS, IT, and Systems to over 300 attendees from all of the Gulf States. Among the keynote speakers at the conference was Orion Technology's Chief Operating Officer, Shafik Jiwani.

Shafik's keynote speech probed the issue of comparing the powers of the human mind versus technology, reflecting upon the mind's abilities to process spatial (geographic) information with the abilities of today's GIS technology. He noted that the human mind can naturally process billions or trillions or more instructions per second, whereas technology is evolving to process information faster and faster.

"For one thing," Shafik joked, "the human mind has a bug in it; not much different from the type of bug you would find in a computer. Many of you will have experienced this during your years in school. The mind starts working from the day

you are born, and stops working as soon as you step up to the podium to make a presentation." However, the human mind is gifted in that it can constantly imagine new ways to do things, and that gift is what has fueled the technology revolution to ever greater heights.

Shafik also observes that the computer, on the other hand, has no imagination. Some look upon it as simply a dumb tool that takes care of boring mental tasks, or as Shafik puts it, "a slave to look after dull computations." However, he warns, the evolution of computing technology did not get to where it is by doing such simple tasks. Shafik concludes, "It has been a continuous process of one imaginative individual trying to outdo another; to do better than the other. As soon as you see an amazing example of how the computer has been used, you're inspired to do something even better. Your imaginative creation will also act as inspiration to someone else, and so on, and so on."

One type of technology, GIS, has been around for over 30 years and has lately experienced drastic growth, which Shafik claims is "almost revolutionary rather than evolutionary." Enhancements in technologies such as communications, databases, and, above all, the Internet have revolutionized GIS.



In the last couple of years, the GIS industry has received a big boost in the recognition of the value of geography with the entry of Google™ and Microsoft® into the GIS family. Shafik notes that these two organizations have given new meaning to geographic data. He also recognizes that now, the average person on the street is touching GIS everyday – whether he/she uses it for car navigation systems or printing a map using Microsoft® Virtual Earth™ on the Internet in 2D or 3D.

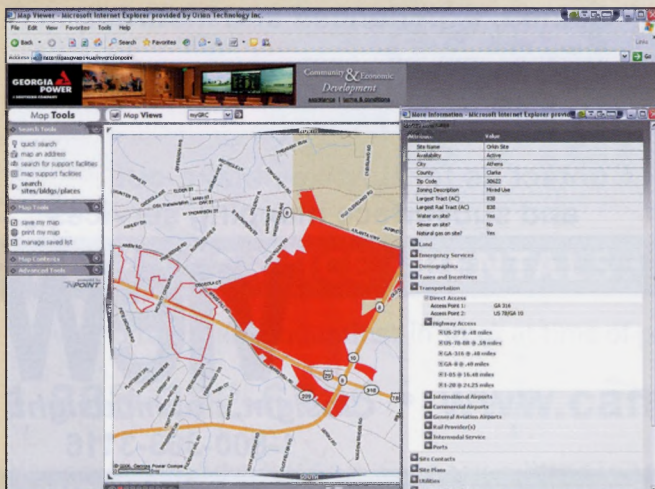
With all this in mind, Shafik is convinced that “People’s expectations of what technology has to offer have changed. People’s appetite for GIS is increasing. We have no choice but to deliver. And we have to be very creative in the way we deliver GIS data. We, in the GIS space, know that people think spatially. Everybody thinks spatially.”

As he was facing a crowd of GIS experts, Shafik stated that “Now, in the era of WebGIS, we, as GIS professionals, have a perfect opportunity to shine. We can become that one window through which everyone can obtain information that is residing in the various business systems within our organization.”

“We, in the GIS industry,” explains Shafik, “have struggled with data compatibility – being able to integrate data, whether it be spatial or non-spatial. We have also struggled to integrate data from different services, whether it be from an OGC® map service, a Virtual Earth™ web service, or your local ArcGIS™ Server. When you have spatial and non-spatial data all over the place – for instance, your building permit data is residing on an Oracle® server while your work orders are residing in SQL Server™ – you need to bring it all together and provide access to this data in a simple manner.”

Shafik then gave some real-life examples of Orion Technology’s OnPoint™ suite, which has taken the first step to accomplishing this goal by allowing users to publish their GIS data quickly and securely over the web and connect to any spatial and non spatial data throughout their organization, turning their web-GIS into a true enterprise solution.

For example, below is OnPoint being used by Georgia Power in Atlanta.



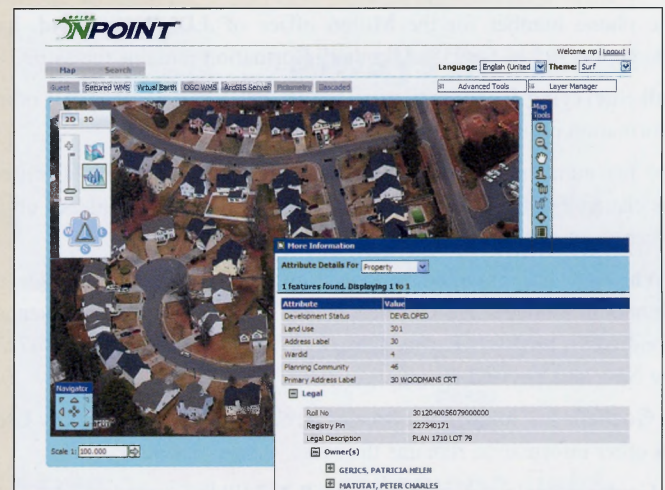
OnPoint allows the user to use the Identify Tool on a feature to retrieve attributes associated with that feature from multiple GIS layers and joined database tables.

Now, OnPoint can be integrated with Pictometry® imagery so you can bring in all your Pictometry orthographic and oblique images to OnPoint, allowing you to use OnPoint features on Pictometry data.




For example, you can use OnPoint Identify Tool directly on Pictometry imagery (as shown above).

OnPoint can also be integrated with Microsoft Virtual Earth so you can seamlessly integrate your data with Virtual Earth data and use OnPoint tools on the combined datasets.



You can also use Virtual Earth navigation tools from within OnPoint (as seen above).

For more information, please visit [www.oriongis.com](http://www.oriongis.com). 

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