Rapid Geospatial Advances Push Legal Envelope

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My first job out of college in 1985 was as a satellite imagery analyst with the National Photographic Interpretation Center (NPIC), a predecessor to the National Geospatial-Intelligence Agency (NGA). My coworkers and I were struck by the power of geospatial technology to address intelligence and defense issues, as well as its potential in civil and commercial applications. However, I don’t think anyone could have predicted how far the technology would advance 25 years later.

Widespread Use

The value of location finally is being widely recognized and appreciated outside the defense and intelligence communities. For example, within civilian government agencies, the Obama administration is pushing a place-based initiative with civilian agencies to maximize the value of federal spending. There’s also a renewed emphasis to create a national spatial data infrastructure (NSDI) that will allow citizens to access and visualize government data, and in the future contribute information on their communities in a timely fashion.

The commercial marketplace also is rapidly adopting geospatial technology for both business and consumer applications. Large corporations are beginning to incorporate spatial data into their enterprise architectures. Meanwhile, businesses of all sizes are assessing how to use location-based social media tools, such as Facebook Places and Foursquare, to increase revenue and traffic. In addition, consumers are using a growing range of location-enabled applications on their smart-phone devices to travel, shop and stay connected to friends and family.

As a result of these changes, the traditional line between military/intelligence and civilian/commercial with respect to geospatial technology has become blurred. For example, commercial satellite imaging companies GeoEye and DigitalGlobe have significant contracts with NGA, but also are increasing sales in the commercial marketplace.

While consumers around the world enjoy using Google Earth and Google Maps, NGA recently entered into a contract with Google because of its expertise in imagery-based enterprise solutions. FortiusOne, an In-Q-Tel-funded company that has had great success in helping government agencies and nongovernmental organizations visualize and analyze data, also are helping businesses identify and visualize important metrics. Similarly, the Department of Homeland Security and the Department of State are looking for ways to incorporate voluntary geographic information and location aspects of social networking into their missions.

Legal Concerns

One often overlooked but important aspect of this new geospatial ecosystem is the increased importance of legal and policy issues on the bottom line. Traditional legal issues, such as intellectual property rights and liability, become much more important in the commercial marketplace.

Similarly, other legal and policy issues, such as privacy and national security, become more complex when individuals and commercial enterprises are introduced. To make matters worse, because law by nature is reactive, the legal and policy communities have been unable to keep up with the growth in geospatial applications. As a result, geospatial companies increasingly are operating in a vacuum when it comes to important legal and policy issues.

Recognizing this reality, several companies have helped create the Centre for Spatial Law and Policy. The Center’s mission is to help business executives understand how existing laws and policies impact the collection, use and distribution of spatial and location data, as well as educate lawyers and policymakers on how spatial technology pushes the envelope of many traditional legal concepts.

The goal is to mitigate a dialogue that will assist in developing consistent and transparent national and international legal and policy frameworks that will enable geospatial technology to achieve its full potential while recognizing and addressing legitimate legal and policy concerns.

One of the center’s challenges is to look across cutting-edge geospatial technology platforms within the context of traditional legal disciplines. For example, a bill introduced in Congress earlier this year would regulate the collection, use and sharing of consumer location data from smartphones to protect against such risks as “geostalking.” However, as written, the bill could inadvertently impact the broader imagery and mapping communities.

Similarly, there’s a growing push internationally for using Creative Commons’ licenses, or other forms of “free and open” licenses, in the licensing of government spatial data sets. However, this trend could impact the market for spatial data products, as it can be a challenge to develop products that combine data licensed under a commercial license with data licensed under a Creative Commons-type license.

Experience suggests that an industry is best served when its companies operate under a transparent and consistent set of laws and policies. The development of such a legal and policy framework is critical to the continued growth and evolution of the geospatial industry. The Centre for Spatial Law and Policy is playing an increasingly important role in that development.

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Online services such as Google Earth are making life easier on consumers while raising challenging legal concerns regarding privacy and national security.