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Geolocation: Don't Fence Web In

As geolocation -- technology that can track the location of computers surfing the Internet -- improves, corporations and governments are increasingly able to limit what people can view on the Web.

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THE WORLD WIDE Web experience is becoming less and less worldwide: What you see and what you are allowed to do these days can depend greatly on where and even who you are.

As so-called geolocation technology improves, websites are increasingly blocking groups of visitors and carving the Web into smaller chunks -- in some cases, down to a ZIP code or employer.

Type "dentist" into Google from New York, and you'll get ads for dentists in the city. Try watching a Cubs baseball game from a computer in Chicago, and you'll be stymied. Pre-existing local TV rights block the webcast.

The same technology is also being used by a British casino to keep out the Dutch and by online movie distributors to limit viewing to where it's permitted by license, namely the United States.

To privacy advocates like Jason Catlett, that technology can detect users' whereabouts isn't the most disturbing aspect of this trend. Rather, it's the fear that websites will try to mislead visitors.

"The technical possibilities do allow a company to be two-faced or even 20-faced, based on who they think is visiting," Catlett said.

Alan Davidson, associate director for the Washington-based Center for Democracy and Technology, worries that governments will try to employ the technology to enforce their laws within artificial borders they erect. Such concerns, not entirely new, have grown with the technology's reliability, he said.

A French court considered geolocation when it directed Yahoo in 2000 to prevent French Internet users from seeing Nazi paraphernalia on its auction pages. America Online sees geolocation as one way to comply with the French Nazi ban as well as a Pennsylvania child porn law.

But for the most part, any online restrictions appear to come from commercial companies, not governments. (China and other countries that censor the Internet use filtering technologies rather than geolocation.)

In the past few months, RealNetworks began offering soccer games and movies restricted to specific countries while Art.com coded its website so Americans automatically see prices in dollars, Germans in euros.

Google, which already had redirected foreign visitors to country-specific home pages, expanded geolocation in April to let merchants target ads by city or distance from a given address.

Here's how geolocation works:

Each computer on the Internet has a unique numeric address akin to a phone number. It's generally assigned to the user's Internet service provider, a university or a company, and a database matches such assignments to the location the network has registered.

But a company's addresses may all be registered to headquarters, though it has branch offices worldwide. An ISP like America Online may route its customers'

So companies like Digital Envoy, Quova and Akamai Technologies refine that database, tracing data packets as they zip through "traffic cops" known as routers, thus narrowing the actual location of each address.

"It requires a lot of rolling up your sleeves and learning very deeply how do various carriers work, how AT&T sets up its network, how that's different from Level 3 and EarthLink," said Tom Miltonberger, a senior vice president at Quova.

Digital Envoy overlays data on Fortune 500 companies and their industries, so websites can target ads, say, to high-tech personnel. It also marries ZIP codes with census data to create demographic profiles.

Far from splitting the Web, geolocation's proponents say, the technology makes the Internet more meaningful to a global audience. AOL can distribute Web traffic more efficiently, while MSNBC.com is thinking of customizing news by time zones.

And the technology permits sports leagues and movie studios to offer content they would otherwise keep offline because of territorial licensing restrictions.

Advocates counter the privacy concerns by arguing that geolocation alone cannot identify specific users.

Still, there are skeptics.

SuperPages.com dropped the technology because it made incorrect assumptions about visitor interest, said Darrin Rayner, vice president of e-commerce sales.

Someone in Chicago, for instance, may prefer flower shops in New York to send flowers there.

And video of the Olympic Games largely remains off the Internet, though NBC will be permitted to provide highlights within the United States during the Aug. 13-29 games in Athens.

The major geolocation companies claim accuracy of 80 percent or more for city-level data and 99 percent for country targeting, though the figures are misleading

AOL still poses problems, as do anonymizing services designed specifically to hide a user's true identity and location. Dial-up users also can call another state or country to connect.

"This service isn't meant (for) people are who trying to be evasive," said Andy Champagne, Akamai's director of network analytics. "It's meant for the 99 percent of the general public who are just at home surfing."

Problematic addresses are often flagged, so websites can assess how much credence to give. RealNetworks, for instance, often rejects all anonymizer traffic and may ask AOL subscribers to provide additional verification. Google won't deliver targeted ads at all when location is in doubt.

Sportingbet, a British gambling outfit that blocks users from the Netherlands to comply with Dutch laws, invites visitors to report mistakes, but chief executive Nigel Payne isn't aware of anyone ever doing so.

Jim Ramo, chief executive of movie distributor Movielink, said studios were aware of the shortcomings going in and have grown more confident now that the system has been shown to work.

"The laws for copyright and licensing and the business rules are different in every country, so it's important the content providers be given a facilitating technology," Ramo said. "We're beginning to prove that we can do that."

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