

Geospatial Technology is 99% Invisible



To give credit where due, 99% Invisible is the name of one of my favourite podcasts. The title comes from a quote from Buckminster Fuller about people, but the show highlights the hidden aspects of design and architecture. The stories reveal that we see and interact with just the end-product of the design process; the rest is invisible. I've been collecting evidence that geospatial technology, and the design behind it, is also 99% invisible.

While out running, I saw another runner looking intently at the phone of a man in a suit. I asked if I could help them find a location. I learned that the man in the suit was trying to determine the address of the place so his friend could pick him up. The other runner pointed to a sign for the public beach, "You can just tell him to pick you up at Shannon Beach." The man shook his head; he needed an address. After looking at the phone a bit

longer the runner said "It's 4 Mystic Valley Parkway." The man in the suit smiled and called his friend with the information.

I do not believe either man could have explained how the phone provided the answer, but both seemed to be confident that it could. Those in the industry would deduce the app reverse geocoded the GPS identified location. I believe they were using Apple Maps, but I suspect that was invisible too; it was just part of the phone's software infrastructure.

Back in June, Snap, the company behind Snapchat, announced Snap Map, an enhancement to the app. Snap Map allows users to see public snaps (photos) on a map or share their location with selected individuals. There was minimal buzz about the tool itself, since so many similar tools exist. However, there was considerable buzz about location sharing privacy concerns. In August, Hurricane Harvey prompted Houstonians and others to keep track of damage across the city as well as the locations of friends and family. Snap Map was one solution. But will it maintain its users? Another hot solution for tracking loved ones is not spatial at all; it's a walkie talkie app called Zello.

My final example involves our community. I was leaving the awesome FOSS4G reception at the MIT Sailing Pavilion in Cambridge, MA on a lovely August night. I asked a fellow attendee how he planned to get back to his hotel. He'd taken an Uber to the event and said he planned to do the same to get back. Uber is a company that relies on a lot of geospatial technology in the service of moving people and making money.

What does all of this hidden geospatial technology, and society's relationship to it, mean? For one thing, we who work in the industry in 2017 are truly standing on the shoulders of giants including the pioneers of communication, GPS and the automotive industries to name a few. Second, we as an industry need to think hard about how we "expose" the technology we provide and the solutions we enable. Perhaps it's time to envisage a 2017 version of "Intel Inside" or "Navteq Onboard."

Finally, we need to see how far we've come. GIS and related technology moved from something no one knew about, to Google Maps, which everyone uses. We can even ask Siri to find a local barbershop with our voice without even thinking. I expect geospatial technology will become even more invisible going forward. I'm not sure how I feel about that.

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