The Pokemon Go Effect: Why Augmented Reality Is Finally Taking Hold in Government

BY: Colin Wood | August 24, 2016

Basketball was pretty lame when it started out. Half of the reason was the rules — players used a soccer ball, which didn't bounce well, and they weren't allowed to dribble. It was sort of like ultimate Frisbee, except instead of enjoying the splendor of nature, they played in a big room that smelled like armpits. Then, a bit later, players were allowed to dribble, but they still weren't allowed to put their hand on the underside of the ball. Dribbling was essentially a spastic up-and-down patting motion, performed by players bent at the knees and wearing colorful short-shorts.

Then Bub Kurland introduced basketball to the slam dunk. He wasn't the first to dunk, but at 7 feet tall, he was the first to do it on a regular basis. In the 1940s, the level of control, strength and height required to get above the rim and jam it in was thought an accomplishment beyond reach for most players. It wasn't really, though; turns out athletes just hadn't been trying that hard.

Nonetheless, Bob Kurland did something important for his sport. And every sport, art form, business and scientific endeavor has similar examples of some achievement that quickly changes the public's conception of what's possible. A great number of things that don't exist or aren't happening right now aren't not happening because they're impossible, but because people think they're impossible and they aren't trying that hard to make them happen.

Pokemon Go is the Bob Kurland of augmented reality (AR). It's not the first app to bridge the digital world with the physical one, and it's certainly not breaking any new ground in the realm of game design. But through its simplicity and mass-appeal, it gained enough attention in the summer of 2016 to expand the public consciousness and generate a series of new business ideas. These ideas have been floating around for at least a decade, but the maturation of data science and Internet of Things technologies paired with a silly mobile game finally has some people taking AR seriously. Governments are calling it "the Pokemon Go effect."

"We can see clearly now, thanks to Pokemon Go, what the rules of the road are," said Ted Smith, chief innovation officer for Louisville, Ky. "The challenge on the table right now is how simple and fast can you make AR information appear. Pokemon Go is a simple rules-of-the-road application. It has to turn on right away, and has to be super fast to use."

One of city government's biggest interests today is finding ways to bring people together with their environments. Governments strive to connect citizens with services and businesses near them, and to keep people informed of their surroundings. Government has tons of data around these kinds of applications, but delivering it effectively is a challenge that remains unsolved.

"'What's going on' is the new, new thing for cities," Smith said. "There's always something going on in cities. It's very difficult to figure out where everybody is and what the interesting things are, and there's any number of failed event calendars for communities that have never worked, and so maybe this should be much more of a hack use of activity data, weather data, traffic data. I don't need to go build the whole thing; maybe I should just be clever about grabbing data that I have."

A few cities are already using or getting ready to use AR to help citizens and visitors better understand and connect with their surroundings through the products offered by a company called Civic Resource Group (CRG). The technology is proving to be incredibly powerful in the public sector, said CRG Founder and CEO Greg Curtain.

"Where AR in government can really be powerful is first augmenting all of that wealth of geo-based data that's so central to government," Curtain said. "On the mobile workforce side, for instance, think about using augmented reality applications and devices for asset and inventory management. When you think about government assets and public-sector assets that are located in a physical environment, you have everything

from trees to fire hydrants, streetlights, corners, curb cuts, you name it — all those physical assets that require a huge amount of maintenance, tracking, monitoring, can all be placed in augmented reality applications."

This technology is now being tested as a proof of concept in several cities and counties. The value has always been there for government, but it wasn't until recently that the cost of sensors and devices was low enough and that the technology seemed accessible enough for anyone to get above the rim.

"People actually saw what augmented reality was in the Pokemon Go game," Curtain said, "which is, 'Wow! It's basic, but powerful. I have my phone, I can see my reality, I can walk through my real world environment and I can layer on important information.'"

Within six months, Alameda County, Calif., plans to have an AR system in place that allows city workers to track the county's more than 7,000 streetlights and traffic signals. The county partnered with CRG to create an AR system that will pair with the county's asset management system, which was created by the California-based MaintStar.

"What this project does is it creates awareness and it also creates transparency," said Dimitry Poretsky, founder and CEO of MaintStar. "And today transparency is what it's all about in government service, because most people have no idea what government does and how they do it."

When a worker points his smartphone at a streetlight, the system will fetch the relevant information from a database. When he points his smartphone at a building under construction, he will see permits and floorplans associated with the structure being built. Eventually, the county intends to allow the public access to the AR permit system, too. The project is estimated to cost about $100,000 for this initial functionality — which could be just the beginning, said Daniel Woldesenbet, director of Alameda County Public Works.

"The electrician who is going to replace the lights or change the fixtures [will] know exactly what the specification is before he climbs the pole," Woldesenbet said. "That's how the system will help the county to be more efficient in terms of getting the work done once instead of going back and forth trying to find out what particular fixtures we need to use for that particular light."

The city also has its eye on 311-integration, he explained, in which a user would simply take a photo of something and the system would take care of the rest — what the object was, which government entity it belonged to and the object's history would already exist in the database, greatly simplifying the user experience and the back office work. That this technology hasn't already taken off in government is hard to account for, he said.

"It's a natural progression for a GIS to go into the virtual display of data to augment reality," he said. "If this goes well, all of our assets, and we have several hundred, could be incorporated in the system, so you can also imagine this system being a public-facing system, and things that are published using the public records act can be deployed through smartphones or glasses even for the general public to see."

While AR is in the works in Northern California, Palm Springs, Calif., has already been using the technology since early this year. The Palm Springs Bureau of Tourism launched an AR mobile application that helps visitors find attractions and access bus arrival data.

"We are a vacation resort community, so most of our city revenue is derived from visitors," said Mary Jo Ginther, director of tourism for the city. "So it's important that we keep our visitors coming. … The other part of our job is to help them know what's in Palm Springs."

Traditionally, the bureau has relied on physical locations with helpers who advise people where to go, what to eat and what to do while they're on vacation, Ginther said, but the AR app is a much better way of getting the information out.

Visitors can open the app, select the kind of attraction they are interested in, such as dining, and point the phone at their surroundings. Nearby restaurants will appear in an overlay on the screen. When the user points the phone another direction, the information repopulates based on the new location. Feedback on the app has been 100 percent positive, Ginther said, adding that it also helped the city because officials were able to integrate the bus arrival data into the existing project rather than commission a separate app.

“When you think about a destination,” she said, “there’s nothing that could be better to help a visitor get around town on their phone.”

Editor's Note: This article was edited on Aug. 25, 2016 to properly reflect Dimitry Poretsky's title.