

California's tech industry is headed toward a new frontier

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California technology companies are poised to take the lead in developing new anti-drone and gun safety tools for the federal government - adding another layer of complexity to the West Coast industry's relationship with East Coast intelligence agencies.

The demand for a technological solution known as "geo-fencing" stems from concerns that arose in 2015, after drone hobbyists brazenly flew their hovercraft over wildfires during the fire season. Their zeal for filming the blaze interfered with the ability of firefighting aircraft to douse the deadly flames with water and fire retardant. That year Rep. Adam Schiff, a California Democrat who's the House Permanent Select Committee on Intelligence's ranking member, called on the Federal Aviation Administration to finalize rules for drone operators so that they are deterred from interfering with the duties of emergency response personnel.

Now he is suggesting that the [technology](#) industry should play a role in reducing the dangers posed by spectator drones.

"We still haven't solved the problem of keeping drones out of firefighting areas, and we still have a continuous problem of drones flying around the airspace of airports, causing near-collisions with aircraft," Schiff said in an interview.

"So I think there are some steps that have been taken, but a lot more work that needs to be done, and here's an area also where technology can

pay a pivotal role," he said. "As the geo-fencing capabilities improve, that's a technology that would solve some of these problems."

Gun safety tools also are on the government's wish list of technological advancements. The newfound interest in a device that would allow only the owner of a gun to access the weapon stems from a presidential directive. President Barack Obama announced in April that he had directed the Departments of Defense, Homeland Security and Justice to prepare a report outlining a strategy for expediting "smart" firearms.

Maryland is the go-to state for Department of Defense officials tasked with testing the latest smart-gun technology at a military facility. Still, California companies will have a major role to play in ensuring that the [federal government](#) gets that technology, Silicon Valley billionaire Ron Conway told Newsweek. Those companies could help improve gun safety, Rep. Jackie Speier, a California Democrat, said in an email response to questions.

"Another technology avenue ... I think we should explore and promote is smart guns," she said. "Thanks to technological advancements, we can lock our smartphones with a touch of our finger, and yet the gun lobby insists the same technology can't be applied to deadly weapons."

Speier is also a member of the powerful House Permanent Select Committee on Intelligence.

She and other California lawmakers have front-row seats for the public displays of investment and territorial spats between the industry and its government partners. Rep. Devin Nunes, R-Calif., is the chairman of the Intelligence Committee and Rep. Eric Swalwell, D-Calif., has a say in intelligence oversight as well. Collectively, they monitor the technology-intelligence relationship as it encounters new opportunities, such as the creation of the Defense Department's Defense Innovation Unit

Experimental venture in Silicon Valley, and setbacks, such as the encryption dispute between FBI officials and Apple.

California, the birthplace of modern warfare and encryption software, is a modern-day technology frontier. Its sprawling cities are full of hush-hush companies that create a variety of weapons with the backing of various intelligence agencies. That weaponry ranges from complex multimillion-dollar military drones with the ability to spy on ground activity from thousands of feet in the sky to data-mining tools that allow government agents to track terrorists.

"The government isn't just a consumer of these technologies for its own intelligence applications," California Technology Council founder Matt Gardner said. "It's now behaving a little bit like a venture capitalist in investing in new technologies, so this is a very different side of that relationship, and it really was pioneered by a venture capital firm called In-Q-tel."

In-Q-tel is the venture-capital arm of the CIA. In recent years, it has expressed a strong interest in companies that create data-mining software and other unique technologies. That venture has inspired other government agencies to follow suit, Gardner said in an interview.

"I think it's fair to say that (the Department of Homeland Security) and (the Department of Defense) saw not only did In-Q-tel work, it helped in their relationship with innovators," he said. "And I wouldn't say just 'big tech' here; it's just innovators in general, because it gave them a different way to relate to those who are developing cutting-edge technology as a partner."

Intelligence agencies have been investing in California companies for decades. Financial contributions to startup companies such as LensVector Inc. in Silicon Valley and Geosemble Technologies in the

Los Angeles area have led to the development of liquid crystal lenses that improve the quality of miniature cameras and technology that can pinpoint the locations of people based on their social media activity. The inordinate amount of attention is a blessing and a curse for California companies because it creates both opportunities and problems.

"I think what's really positive about this development is that government is rethinking itself," Gardner said. "And so here's what's exciting about this: They're not getting too caught up in their own bureaucracy so much so that it prevents them from new thinking."

But that new thinking comes with its fair share of controversy.

The relationship between the technology industry and the intelligence agencies has been strong and, "until recently, a very fruitful area," Schiff said. Now, as tech companies face increasing pressure from intelligence agencies seeking access to technology and information, Schiff and other lawmakers are looking for ways to resolve the tension in the tech-intelligence relationship.

"While the technology sector wants to work with law enforcement and the intelligence community to keep the country safe, they also don't want to jeopardize their business overseas, and, you know, when things and conflicts emerge, like they have between Apple and the FBI, that poses a real challenge to the tech sector, as it does to law enforcement," he said. "You see that reflected in things like the decision of Twitter not to allow part of its open-source database to be accessed" by the intelligence community.

Lawmakers have a mitigation role to play, Schiff said, because the issue "is too large" and has "too many policy implications to be addressed by the courts alone."

"It is fundamentally a balancing of security privacy and a whole host of other considerations: the global impacts, the economic impacts," he said. "And those are considerations that are not easily balanced by a court, so I think that it really is something that Congress should address."

Former CIA director and former Defense Secretary Leon Panetta said he disagreed with that approach. California's technology industry and the [intelligence agencies](#) need to resolve their own issues - without the interference of Congress, he said. Since his time at the CIA, Panetta said, he has watched the standard protocol of quiet communication about national security issues between tech companies and intelligence agents devolve into a front-page spat.

"We had meetings in Silicon Valley. They were always cordial, but they were always confidential," he said in an interview. "That's an important aspect if you're going to be able to find a solution to the current problem. You've got to be able to do it in a way that is confidential and not on the front page of The Washington Post."

As exciting technological opportunities arise, such as the need for geofencing and smart-gun tools, that relationship may stay in the spotlight. After all, the federal government will need to create new regulations for that technology and remain wary about what the average person could do with access to anti-drone tools, Gardner said.

"I think there should be a worry among - especially those same regulators - about John Smith in his backyard taking air defense into his own hands," he said. "That's an interesting risk."

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