The NSA Can Know Everything

by Rod Dreher via cyd - The American Conservative *Friday, Oct 25 2019, 8:32pm*
international / prose / post

> This is hugely significant news for a number of reasons:
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> Scientists claimed Wednesday to have achieved a near-mythical state of computing in which a new generation of machine vastly outperforms the world's fastest super-computer, known as "quantum supremacy".

A team of experts working on Google's Sycamore machine said their quantum system had executed a calculation in 200 seconds that would have taken a classic computer 10,000 years to complete.

A rival team at IBM has already expressed skepticism about their claim.

But if verified and harnessed, the Google device could make even the world's most powerful supercomputers — capable of performing thousands of trillions of calculations per second — look like an early 2000s flip-phone.

The reason that most interests me is what this means for privacy. In his new memoir, Permanent Record, Edward Snowden writes about a speech that Gus Hunt, the CIA's chief technology officer, gave in 2013. Only the Huffington Post covered it (though you can watch it online). From HuffPo's report:

Speaking before a crowd of tech geeks at GigaOM's Structure:Data conference in New York City, CTO Ira "Gus" Hunt said that the world is increasingly awash in information from text messages, tweets, and videos — and that the agency wants all of it.

"The value of any piece of information is only known when you can connect it with something else that arrives at a future point in time," Hunt said. "Since you can't connect dots you don't have, it drives us into a mode of, we fundamentally try to collect everything and hang on to it forever."

Hunt's comments come two days after Federal Computer Week reported that the CIA has committed to a massive, $600 million, 10-year deal with Amazon for cloud computing services. The agency has not commented on that report, but Hunt's speech, which included multiple references to cloud computing, indicates that it does indeed have interest in storage and analysis capabilities on a massive scale.

More:

“It is really very nearly within our grasp to be able to compute on all human generated information,” Hunt said. After that mark is reached, Hunt said, the agency would also like to be able to save and analyze all of the digital breadcrumbs people don’t even know they are creating.

“You’re already a walking sensor platform,” he said, nothing that mobiles, smartphones and iPads come with cameras, accelerometers, light detectors and geolocation capabilities.

“You are aware of the fact that somebody can know where you are at all times, because you carry a mobile device, even if that mobile device is turned off,” he said. “You know this, I hope? Yes? Well, you should.”

Hunt also spoke of mobile apps that will be able to control pacemakers — even involuntarily — and joked about a “dystopian” future where self-driving cars force people to go to the grocery store to pick up milk for their spouses.

Hunt’s speech barely touched on privacy concerns. But he did acknowledge that they exist.

“Technology in this world is moving faster than government or law can keep up,” he said. “It’s moving faster I would argue than you can keep up: You should be asking the question of what are your rights and who owns your data.”

Note well: “It is really very nearly within our grasp to be able to compute on all human generated information.”

Here is a link to Gus Hunt’s speech on YouTube.

In its vast Utah Data Center constructed earlier this decade, the National Security Agency has the capacity to store virtually unlimited amounts of digital data it hoovers up daily. This is what Gus Hunt was talking about. The biggest problem is how to make that data useful for the government’s purposes — that is, how to find the needle in the haystack of data.

This Google quantum computing breakthrough, if verified, would appear to solve that problem.

Here’s an excerpt from Alan Rusbridger’s interview of Snowden’s memoir:

[Snowden’s] sleuthing led him to a crucial program called XKEYSCORE – “perhaps best understood as a search engine that lets an analyst search through all the records of your life. Imagine a kind of Google that instead of showing pages from the public Internet returns results from your private email, your private chats, your private files, everything”. When he manoeuvred himself into a position where he could start playing with XKEYSCORE he was astonished:

Nothing could prepare me for seeing it in action. It was, simply put, the closest thing to science fiction I’ve ever seen in science fact: an interface that allows you to type in pretty much anyone’s address, telephone number, or IP address, and then basically go through the recent history of their online activity. In some cases you could even play back recordings of their online sessions, so that the screen you’d be looking at was their screen, whatever was on their desktop. You could read their emails, their browser history, their search history, their social media postings, everything. You could set up notifications that would pop up when some person or some device you were interested in became active on the Internet for the day.

Snowden accepts that such a capability is desirable when narrowly targeted at people who present a

credible threat to public order and safety. His concern was over suspicionless mass data collection – the vast digital trawl nets that could gather up the communications of countless millions of entirely blameless citizens. "The freedom of a country can only be measured by its respect for the rights of its citizens, and it's my conviction that these rights are in fact limitations of state power that define exactly where and when a government may not infringe into that domain of personal or individual freedoms that during the American was called 'liberty' and during the Internet Revolution is called 'privacy'." Even to someone who understood the systems a thousand times better than any MP or member of Congress, the evidence was breathtaking.

I sat at a terminal from which I had practically unlimited access to the communications of nearly every man, woman, and child on earth who'd ever dialed a phone or touched a computer. Among those people were about 320 million of my fellow American citizens, who in the regular conduct of their everyday lives were being surveilled in gross contravention of not just the Constitution of the United States, but the basic values of any free society…

I repeat: If Google's quantum computer really works, then the NSA will have the technological capacity to sift through the mass of data it collects, to find what it wants to find. Your entire life is in storage somewhere — and the government will be able to search it at will, quickly. There is — or shortly will be — no place to hide. This new book I'm working on will seek to discover from people who lived under the Soviet surveillance state how to do so without losing your mind.

By the way, here's a YouTube link to the nearly three hour interview Joe Rogan did with Snowden, which just went up.

UPDATE: Several readers who know computer technology — both in the comments thread and e-mailing me privately — say that this is not the threat I think it is. Everyone says some version of what Secular Misanthropist said in his comment:

IBM is correct to call BS on Google's claim, and everyone should calm down.

Google's quantum computer only has 54 qubits. That is not a general purpose quantum computer. Instead they selected a task that was amenable to their quantum computer, but hard with a general purpose classical computer. However, such a machine can't crack codes, or do much else useful.

It's not that dissimilar to IBM's Watson PR stunts. Yes it can play Jeopardy really well, but it over promised and under delivered on everything else.

Google's achievement is impressive, but was basically done for bragging rights.

dr Fake News

One reader who works in that world added that what the agencies can already do with the computers they have is scary enough on the privacy front.

[It would appear the above article is laced with hype, though the solution to this real/unreal problem is very simple; ***just ask, who voted for pan-surveillance and you would come up with zero?*** *Therefore, it becomes an easy matter to elect a real representative of the (digitally) oppressed people to eliminate unnecessary pan-surveillance, which is primarily utilised by Big IT companies and other corporate interests to make money and the intel agencies who serve unrepresentative,*

deep state ruling elites, NOT the people or nation. If the people feel threatened then democratically eliminate the problem which no-one wanted in the first instance; ALL western governments lied to implement this strategy with the, "keep us safe," crap, remember? Dispose of it any time YOU choose -- it is clear today that corporations and agencies act in their own interests, not y/OURS, so let's democratically VOTE pan-surveillance out of existence! ***You are not as powerless and subject as you are (media) led to believe.****]*

https://www.theamericanconservative.com/dreher/google-quantum-computing-nsa-surveillance/
