The Cyber Arms Race

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ABSTRACT

When Internet became commonplace in the mid-1990s, the decision makers ignored it. They did not see it as important or in any way relevant to them. As a direct result, global freedom flourished in the unrestricted online world. Suddenly people all over the world had in their reach something truly and really global. And suddenly, people were not just consuming content; they were creating content for others.

But eventually politicians and leaders realized just how important the Internet is. And they realized how useful the Internet was for other purposes — especially for the purposes of doing surveillance on citizens.

The two arguably most important inventions of our generation — the Internet and the mobile phones — changed the world. However, they both turned out to be perfect tools for the surveillance state. And in a surveillance state, everybody is assumed guilty.

Internet surveillance became front page material when Edward Snowden started leaking information on PRISM, Xkeyscore and other NSA programs in the summer of 2013.

But do not get me wrong. I do understand the need for doing both monitoring and surveillance. If somebody is suspected for running a drug ring, planning a school shooting, or participating in a terror organization, he should be monitored with a relevant court order.

However, that is not what PRISM is about. PRISM is not about monitoring suspicious people. PRISM is about monitoring everyone. It is about monitoring people that are known to be innocent. And it is about building dossiers on everyone, eventually going back decades. Such dossiers based on our Internet activity will build a thorough picture of us. And if the powers-that-be ever need to find a way to twist your hand, they would certainly find something suspicious or embarrassing on everyone, if they have enough of their internet history recorded.

United States intelligence agencies have a full legal right to monitor foreigners. Which does not sound too bad — until you realize that most of us are foreigners to the Americans. In fact, 96% of the people on the planet turn out to be such "foreigners." And when these people use US-based services, they are legally under surveillance. When the PRISM leaks started, US intelligence tried to calm the rest of the world by explaining that there is no need to worry and that these programs were just about fighting terrorists. But then further leaks proved that the United States was using their tools to monitor the European Commission and the United Nations as well. It is difficult for them to argue that they would be trying to find terrorists in the European Union headquarters.

Another argument we have heard from the US intelligence apparatus is that everyone else is doing internet surveillance too. And indeed, most countries do have intelligence agencies, and most of them do monitor what other countries are doing. However, United States has an unfair advantage. Almost all of the common internet services, search engines, webmails, web browsers and mobile operating systems come from the USA. Put in another way: How many Spanish politicians and decision makers use American services? Answer: All of them. And how many American politicians and decision makers use Spanish services? Answer: None of them. All this should make it obvious that we foreigners should not use US-based services. They have proven to us that they are not trustworthy. Why would we voluntarily hand our data to a foreign intelligence agency?

But in practice, it is very hard to avoid using services like Google, Facebook, LinkedIn, Dropbox, Amazon, Skydrive, iCloud, Android, Windows, iOS and so on. This is a clear example on the failure of Europe, Asia and Africa to compete with the USA on Internet services. And when the rest of the world does produce a global hit, like Skype or Nokia, it typically ends up acquired by an American company, bringing it under US control.

But if you are not doing anything wrong, why worry about this? Or, if you are worrying about this, what do you have to hide? My answer to his question is that I have nothing to hide but I have nothing in particular that I would want to share with an intelligence agency either. In particular, I have nothing to share with a foreign intelligence agency. If we really need a big brother, I would rather have a domestic big brother than a foreign big brother.

People have asked me if they really should worry about PRISM. I have told them that they should not be worried — they should be outraged instead. We should not just accept such blanket and wholesale surveillance from one country onto the rest of the world.

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Advancements in computing power and data storage have made wholesale surveillance possible. But they have also made leaking possible. That is how Edward Snowden could steal three laptops which contained so much information that printed on paper it would be a long row of trucks full of paper. Leaking has become so easy, it will keep organizations worrying about getting caught over any wrongdoing. We might wish this would force organizations to avoid unethical practices. While governments are watching over us, they know were watching over them.

Categories and Subject Descriptors

K.4.2 [**Social Issues**]: Abuse and crime involving computers

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Short Bio

Mikko Hypponen is the Chief Research Officer of F-Secure in Finland. He has been working in the area of computer security for over 20 years and has fought the biggest virus outbreaks in the net, including Loveletter, Conficker and Stuxnet. His TED Talk on computer security has been translated to over 35 languages. His columns have been published in the New York Times, Wired, CNN and BBC. Mr. Hypponen sits in the advisory boards of the ISF and the Lifeboat foundation