Cyber Intelligence - Why Should You Care?

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**004 So why should you care about cyber intelligence?

Cyber Ecosystem Is Everywhere

- Cyber Ecosystem: The interconnected network of information technology infrastructure we call cyberspace, and the people, environment, norms, and conditions that influence that network. (DHS)

https://www.dhs.gov/sites/default/files/publications/DHS-Cybersecurity-Strategy_1.pdf)
https://www.allaccess.com/merge/archive/31294/infographic-what-happens-in-an-internet-minute

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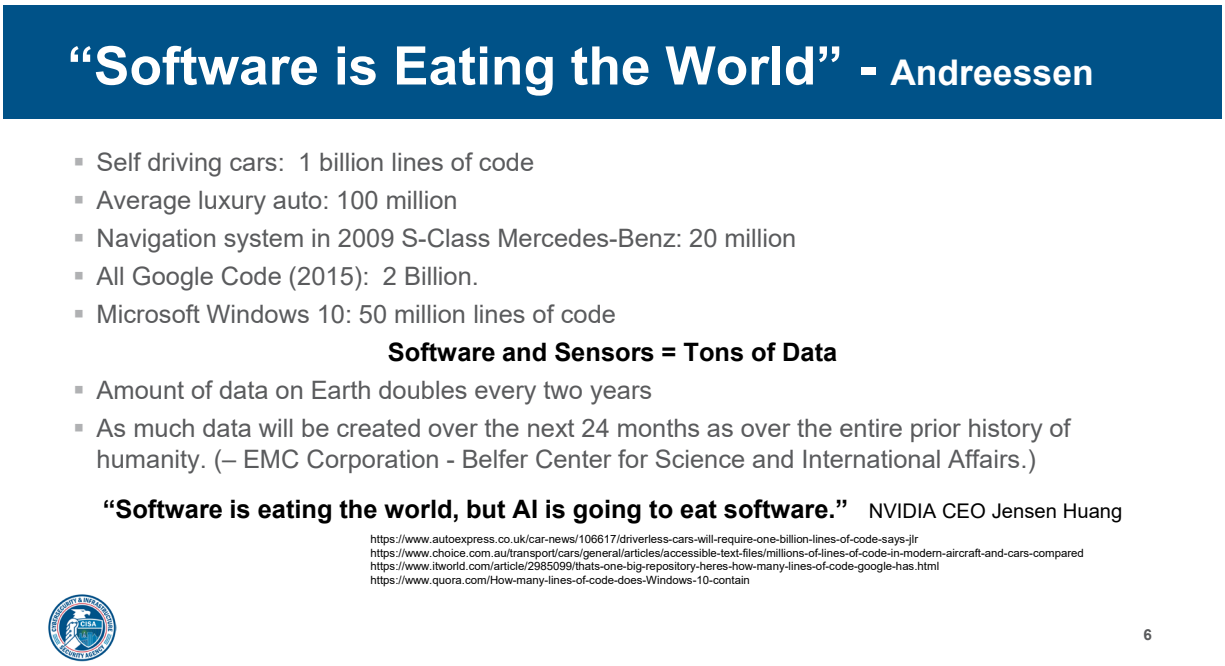
**005 Well, it's kind of obvious. Because we live in the cyber domain. It consumes our daily lives. It is us and everything that we do. It is the one logical domain out of all the others, air, land, sea and space, that is interwoven between them. Cyber is becoming everything. It's everywhere. We are part of and live in the cyber ecosystem. From one perspective, this picture shows what happens in one internet minute in 2020. Only half of the world has internet access right now, so these numbers will continue to increase as more people get access.

So if it's hard to see the numbers, let me highlight a few interesting figures. According to the graphic, 190 million emails are sent every minute; 1,400 TikTok downloads every minute; 4.1 million Google

searches every minute; and 4.9 million YouTube videos are viewed every minute. So there is a ton of data out there. That data is enabled, produced, maintained and distributed by software.

"Software is Eating the World" - Andreessen



**006 And Marc Andreessen coined the term "software is eating the world." He's the co-founder of a VC firm Andreessen Horowitz, and in the early days of the web, Andreessen co-created Mosaic, the first and arguably significant graphical internet browser, and he also co-founded Netscape, which later sold to AOL for about 4.2 billion dollars.

So with this, you can understand that software is in everything. It's from cars to phones to planes, IoT, refrigerators, mobile devices, Apple watches, Alexa, you name it.

Self-driving cars, for example, have at least one billion lines of code, and today--in today's cars, excuse me, software is basically running the engines, the control safety features that entertains our passengers, guides, drivers, the destinations and connects each car to mobile satellite and GPS networks.

Cars are becoming more of computers with wheels. The average luxury auto is about a hundred million lines of code. Navigation system in the 2009 Mercedes-Benz is about 20 million lines of code. Microsoft Windows 10, that's 50 million lines of code. So all of this software is creating tons of data, machine-generated data, and according to EMC Corporation, the amount of data on earth doubles every two years. So as much data will be created over the next 24 months as over the entire history, prior history, of humanity.

IDC research also notes that by 2020, the global data sphere will be over 160 zettabytes. So with software eating the world, what can we do? According to NVIDIA CEP Jensen Huang, "Software is eating the world, but AI is going to eat software." So if cyber is everywhere, and software is eating the world and AI is going to eat software--

The Key Is to Make Sense of It All

- Intelligence: Applying knowledge to information

http://www.itsecurityguru.org/2015/07/22/opendns-launches-security-search-engine-for-interactive-threat-intelligence/

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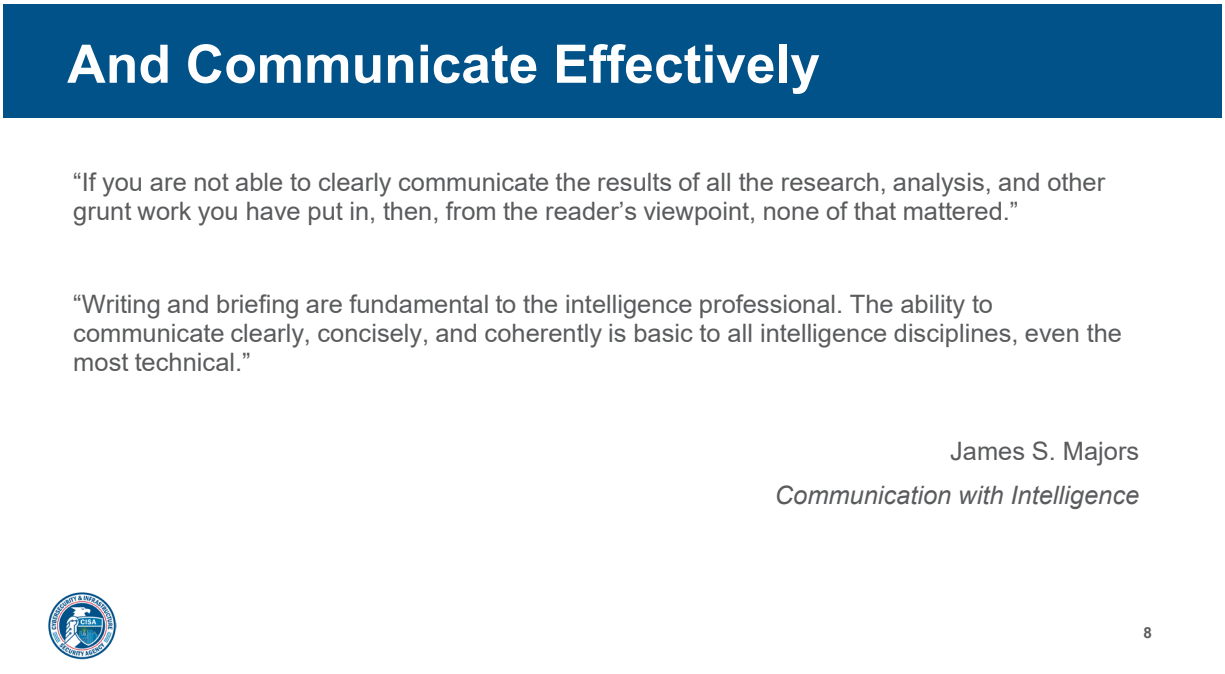
**007 --then the key for us is going to try to make sense of this all. We're going to have to be able to make sense of all the generated data in a timely manner and provide the best intelligence to decisionmakers. Our ability to analyze all the information and catch up and get ahead of the minute in the internet and provide intelligence to our leadership and say, "Hey, Boss, these are the threats we really need to look at, these are the threat actors that we really want to pay attention to, these are the ones that are targeting us, here's what we predict, we should merge this--we should merge with this company and not the other," or, "We need to pay attention to this technology," are going to be the pressing questions as we move into the future, and this is what cyber

intelligence is all about. This is what we need to be able to do.

We note in our 2019 study, that the practice of cyber intelligence is getting stronger than it was in 2013 when we did our first study, but it's certainly not strong enough. So at a very basic level, we will learn about applying knowledge to information. The information is coming from a ton of disparate sources, disparate data sources, structured and unstructured, and you as a cyber intelligence analyst will need to make sense of it all. But even if you're good at intelligence analysis, that really doesn't matter if you're not a strong communicator.

And Communicate Effectively



**008 If you are unable to communicate clearly, concisely and back up what you're saying with what

you know, what you don't know, and what you think you know, then you're not going to be a successful cyber intelligence analyst. Let's take a look at some skills and trades of cyber intelligence analysts.

Notices

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