



CANADIAN IOT SECURITY
INITIATIVE 2018

Global Good Practice
for sustainable IoT
implementation

Internet of Things in global context

Maarten Botterman at Canadian IoT Security Initiative 2018
4 April 2018, Ottawa

“IoT” is part of Internet

- IoT is merely a specific aspects of the Internet, just like social media, communication and access to information
- IoT has specific characteristics that will co-determine the development of future networks. This includes;
 - Collecting, storing and providing access to many data related on observations by sensors;
 - Autonomous networks with actuators that take action following receipt of specific data according to pre-programmed decision models, learning, or external interventions.



IoT Global Good Practice
www.iot-dynamic-coalition.org

“IoT” is ... everywhere



Societal challenges

Healthcare;
Independent living;
Secure society;
Sustainable society

Economic challenges

Innovation; growth;
profit

Environmental challenges

Scarce resources;
waste reduction;
environmental
monitoring



Governance

Global standards, open
standards,
multistakeholder
involvement, ethical
IoT

Privacy and data collection

Big data issues, cloud
issues (location,
jurisdiction,
accountability),
digital literacy

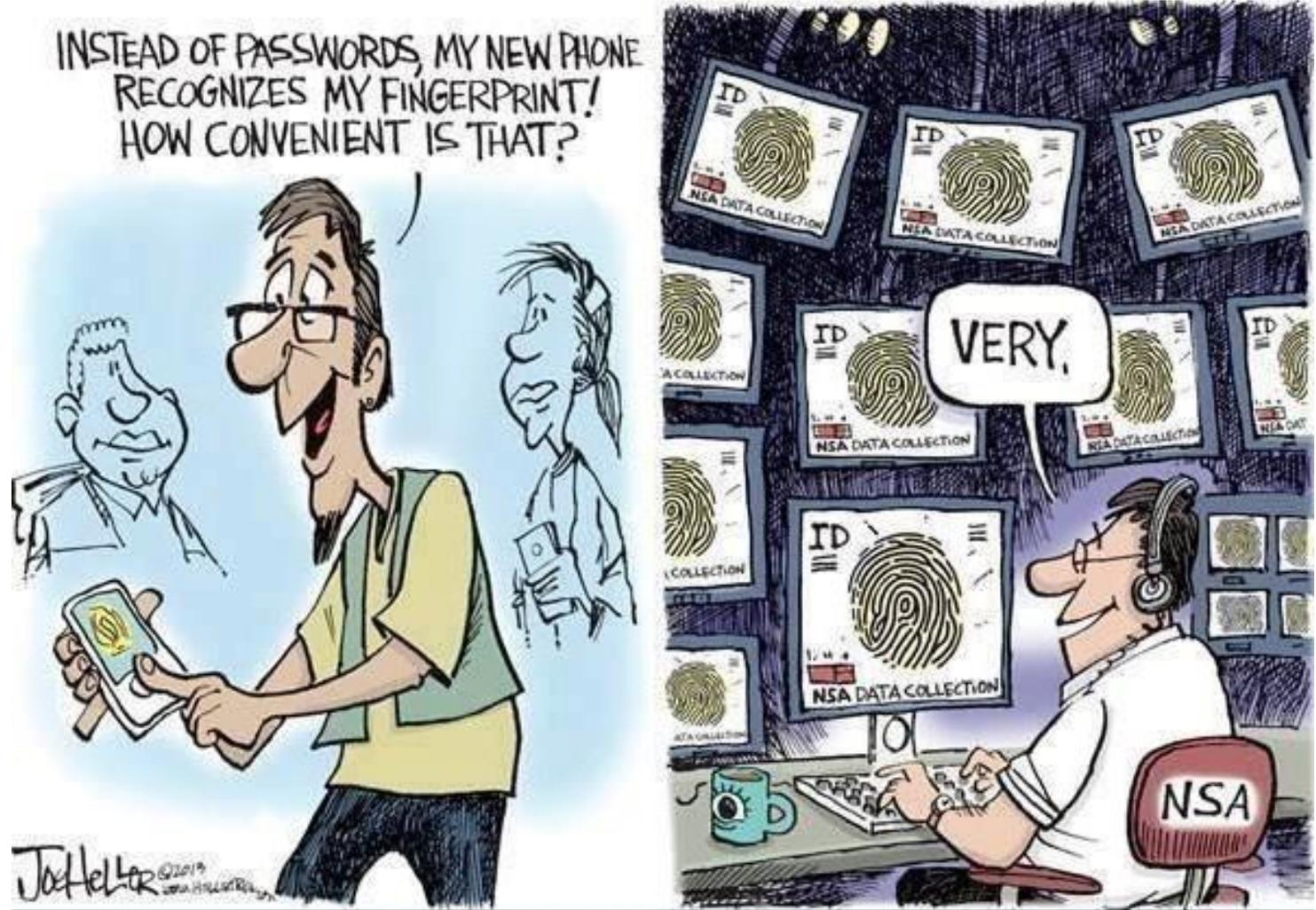
Security

Access, Autonomous
systems, cyber attacks
on new end points

Source: GNKS 2014

The two sides of IoT

Concerns about IoT



Andrew Rose,
WIRED

1 November 2013

“By accident or by design, useful IoT solutions could mash together, introducing or accelerating black swan events: catastrophic failures that are unexpected but obvious in hindsight. The key to addressing these is to plan for and address these scenarios, now.”

W I R E D

In 2018, cyberattacks have become one of the most likely and most disruptive threats to our society.



Will we continue to innovate at high speed, or will it step up and address these challenges head on, and build more secure services, including for IoT systems?

Time to find a balance
between technology
potential and societal
needs



Selection of current activities and references

- IGF Dynamic Coalition on the Internet of Things: establishing Global Good Practice from a multistakeholder perspective.
 - www.iot-dynamic-coalition.org
- Alliance for Internet of Things Innovation: working together on a dynamic European IoT ecosystem to speed up the take up of IoT, taking
 - <https://aioti.eu/>
- Global Forum for Cyber Expertise: capacity building for local multistake-holder collaboration, globally, in adoption of open Internet Standards such as DNSSEC, TLS
 - <https://www.thegfce.com/>
- PICASSO ICT Security report: vulnerabilities increasing through innovation, and to be addressed head on
 - <http://www.picasso-project.eu/wp-content/uploads/2017/06/20170430-PICASSO-Policy-Paper-2-Security-FINAL-1.pdf>
- See also ICANN, IETF, RIPE NCC, World Economic Forum, Information Society, and many others ...

About Maarten Botterman

- More than 25 years experience with work “in the public interest”: where connected technologies touch society - internationally
- Independent analyst, strategic advisor, moderator and chairman, see for more: www.gnksconsult.com
- Currently chairing: IGF Dynamic Coalition on Internet of Things (www.iot-dynamic-coalition.org/); PICASSO Policy Expert Group (www.Picasso-project.eu), and Supervisory Board of NLnet Foundation (www.nlnet.nl)
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