

RSA[®]Conference2019 Asia Pacific & Japan

Singapore | 16–18 July | Marina Bay Sands



BETTER.

SESSION ID: SEM-T02B

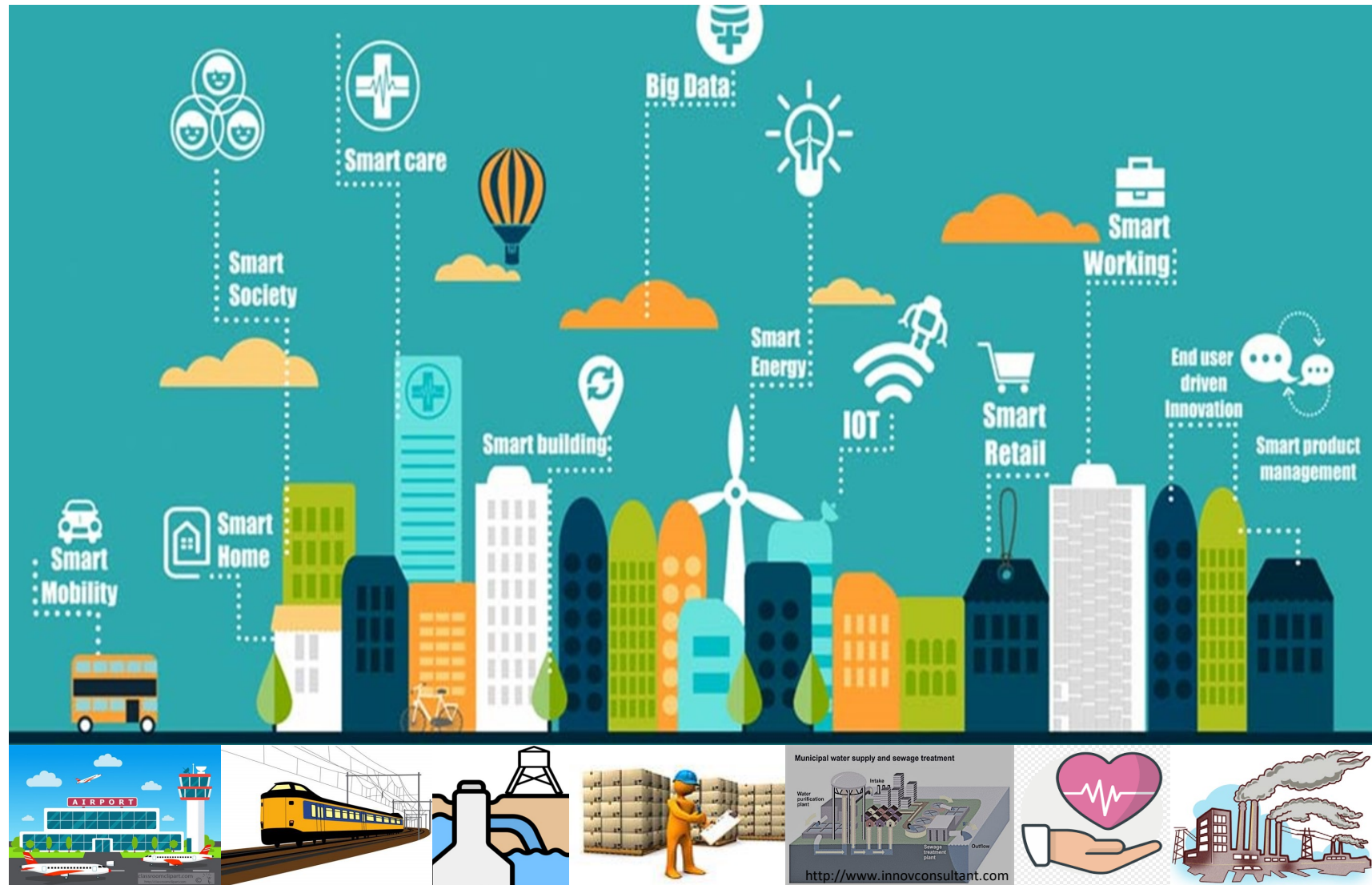
The 4th Industrial Revolution: What Does it Mean for Cybersecurity

Leonard Kleinman

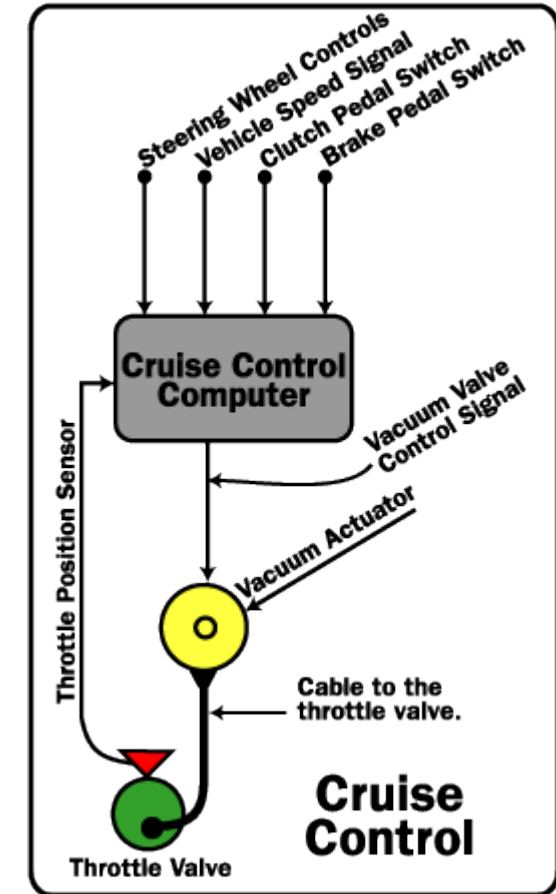
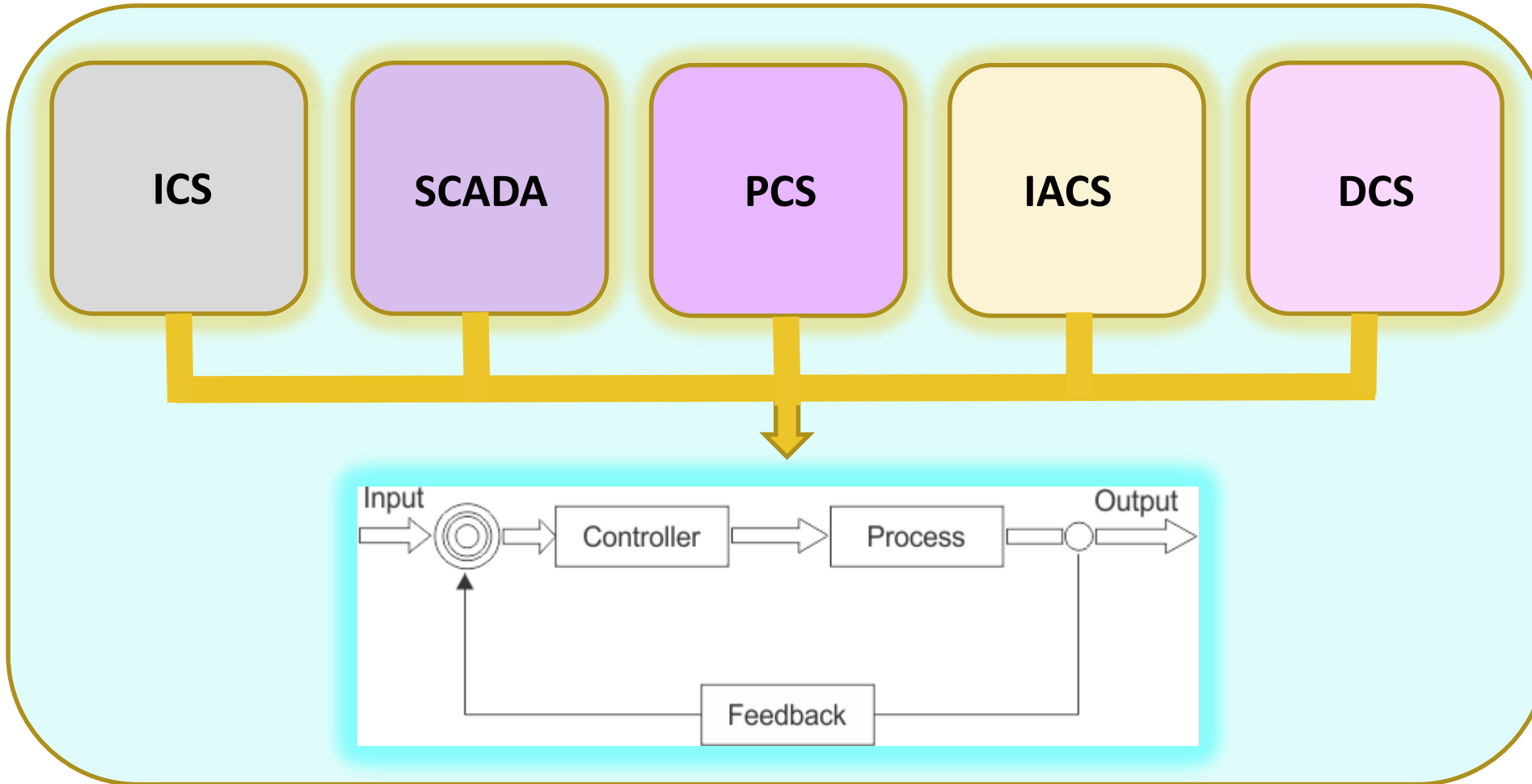
Chief Cyber Security Advisor,
RSA

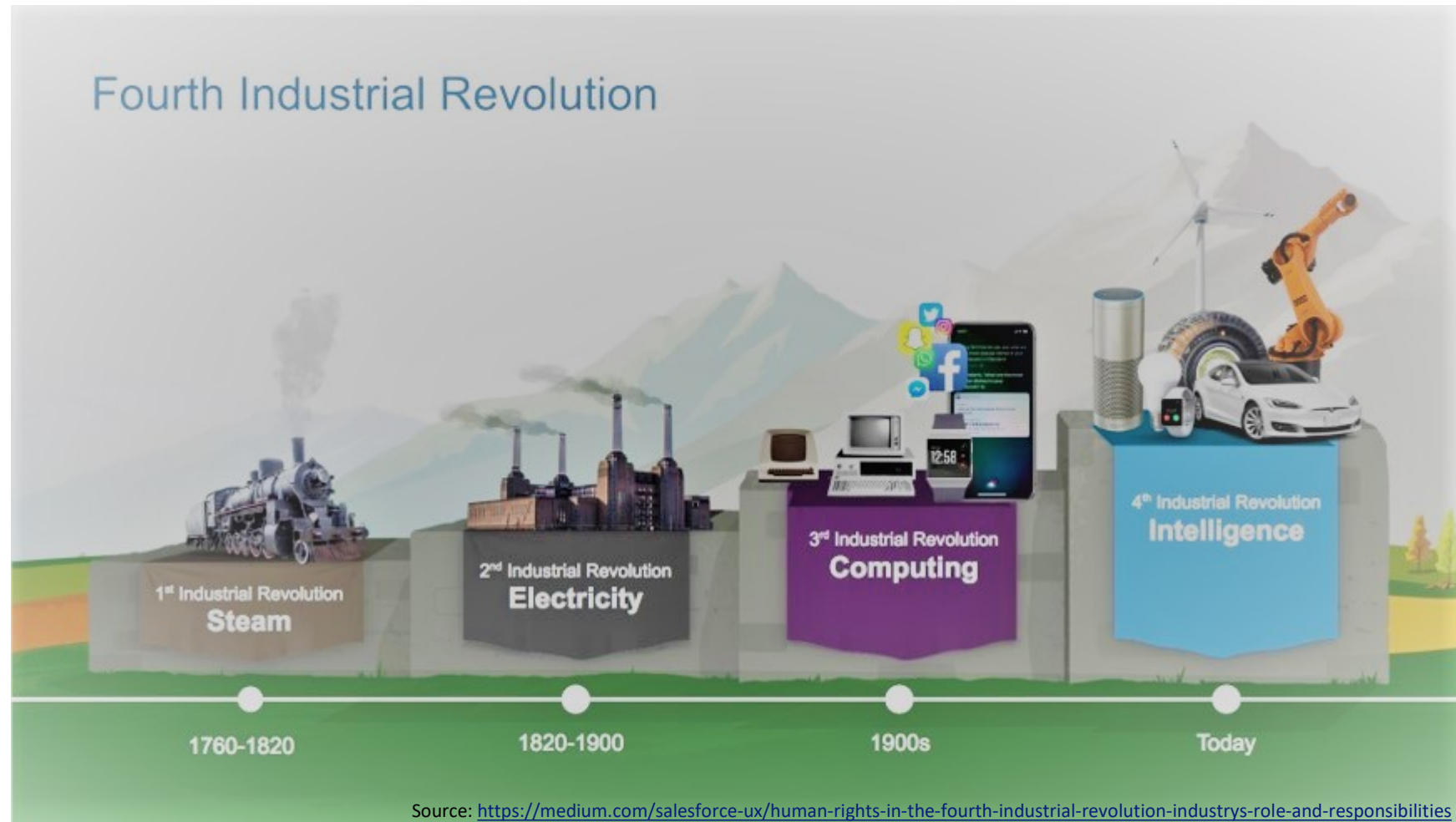


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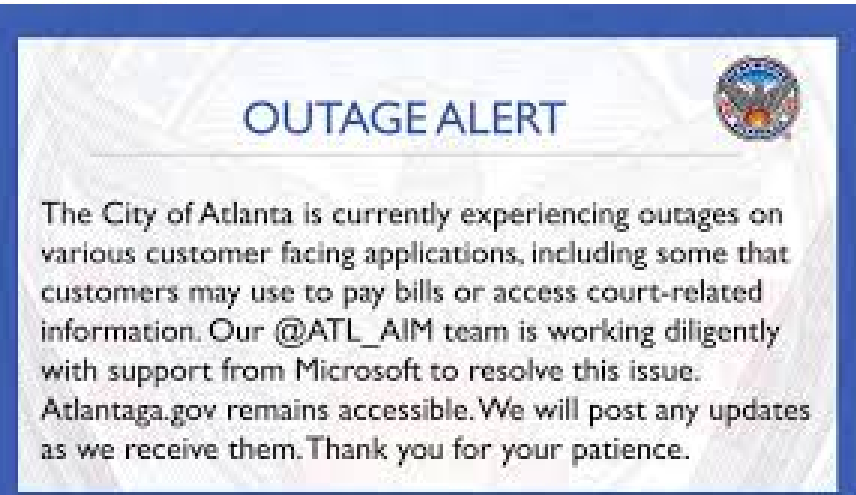


Control Systems Defined

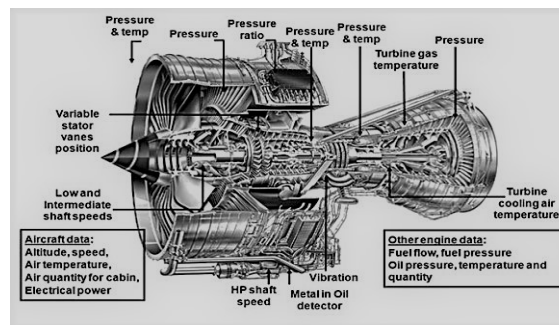
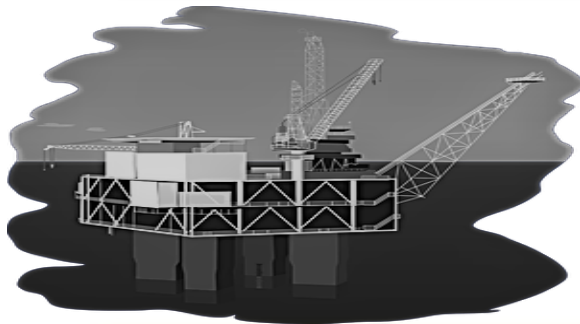




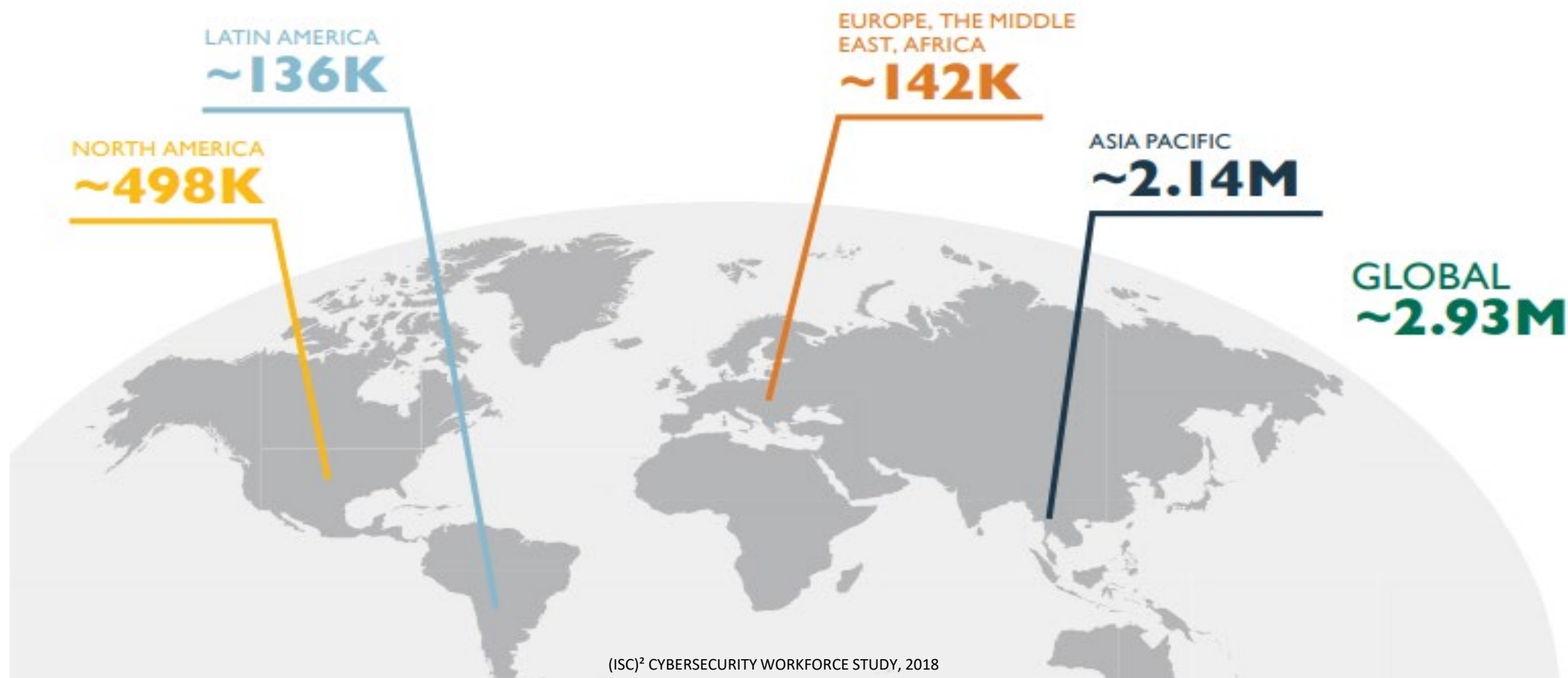
Industry 4.0 - Consequences



Industry 4.0 - The Internet of Things

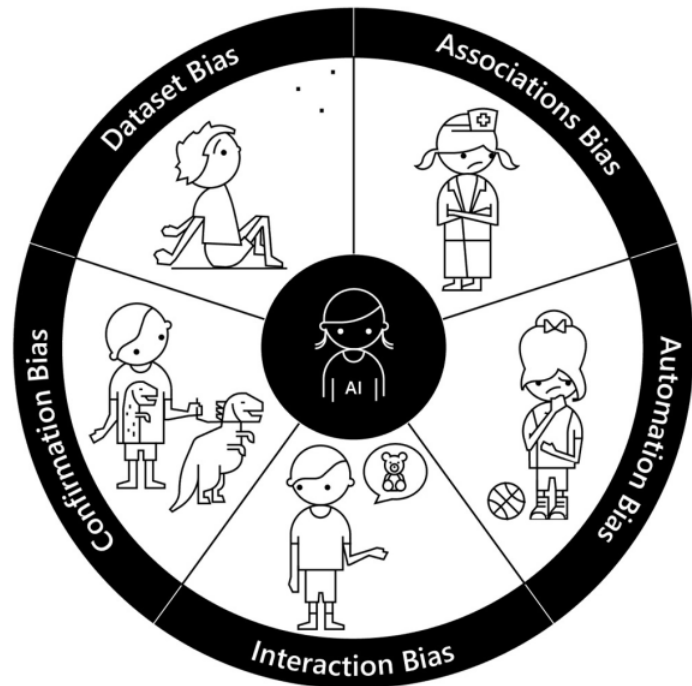


Gap in Cybersecurity Professionals by Region



Industry 4.0 - New Jobs, new careers

Credit: COGNIZANT – 21
More Jobs of The Future



Cyber Attack Agent

To be considered for this critical role, you must display an excellent track record of cyber-focused software service attack experience. Cyber Attack Agents will operate as an effective and collaborative team, working closely with each of the NCSC's cybersecurity teams.

Algorithm Bias Auditor

The head of ABA will establish an inventory system that logs and tracks each significant algorithm, its objectives, its input and output, related human value judgments and consequences.

Industry 4.0 – New Legislation

Title: 中华人民共和国网络安全法
Promulgating Entities: Standing Committee of the National People's Congress
Reference number: 主席令12号
Promulgation Date: 2016-11-7
Expiration date:
Source of text: http://www.npc.gov.cn/npc/xinwen/2016-11/07/content_2001605.htm
Translation EN -> FR made by @Switshah

Table of Contents

Chapter I: General Provisions

Chapter II: Support and Promotion of Network Security

Chapter III: Network Operations Security

Section 1: General Provisions

Section 2: Operations Security for Critical Information Infrastructure

Chapter IV: Network Information Security

Chapter V: Monitoring, Early Warnings, and Emergency Response

Chapter VI: Legal Responsibility

Chapter VII: Supplementary Provisions

Chapter I: General Provisions

Article 1: This law is formulated so as to ensure network security, to safeguard cyberspace sovereignty, national security and the societal public interest, to protect the lawful rights and interests of citizens, persons and other organizations, and to promote the healthy development of economic and social informatization.

Article 2: This law applies with respect to the construction, operation, maintenance and usage of networks, as well as network security supervision and management within the mainland territory of the People's Republic of China.

2016-2017

The Parliament of Australia

Government of the
Commonwealth of Australia

HOUSE OF REPRESENTATIVES/TH

EXPOSURE

Security of Critical Information
Infrastructure Act 2017

No. , 2017

(Attorney-General)

for an Act to create a framework
for critical infrastructure, and for
managing critical infrastructure, and for related
purposes

Australia

116TH CONGRESS
1ST SESSION

H. R. 1668

CONGRESS
SESSION

to leverage Federal Government procurement power to encourage increased cybersecurity for Internet of Things devices, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 11, 2019

Ms. KELLY of Illinois (for herself, Mr. HURD of Texas, Mr. KHANNA, Mr. BUDD, Mr. RUPPERSBERGER, Mr. MARSHALL, Mr. TED LIEU of California, Mr. RATCLIFFE, Mr. MEADOWS, Mr. SOTO, Mr. WALKER, Mr. CONNOLLY, Mr. FOSTER, and Mr. BAIRD) introduced the following bill; which was referred to the Committee on Oversight and Reform, and in addition to the Committee on Science, Space, and Technology, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

to leverage Federal Government procurement power to encourage increased cybersecurity for Internet of Things devices, and for other purposes.

enacted by the Senate and House of
States of America
bersecurity Improvement Act of 2019" or the "IoT Cyber-
security Improvement Act of 2019".

USA

116TH CONGRESS
1ST SESSION

S. 1336

S. 1336

To create an Cybersecurity Improvement Act of 2019

cybersecurity at the Federal Trade Commission, to require the promulgation of regulations establishing standards for effective cybersecurity at consumer reporting agencies, to require such agencies, to impose penalties on entities that violate such standards, and for other purposes.

THE UNITED STATES

2019

(MR. SCHUMER) introduced the following bill;
to the Committee on Banking, Housing, and Urban Affairs

BILL

cybersecurity at the Federal Trade Commission, to require the promulgation of regulations establishing standards for effective cybersecurity at consumer reporting agencies, to require such agencies, to impose penalties on entities that violate such standards, and for other purposes.

to create an Cybersecurity Improvement Act of 2019

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

1 Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

2 lives of the United States of America in Congress assembled,

3 Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

4 Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

5 Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

6 Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

USA

Cybersecurity Bill

Bill No. /2017.

Read the first time on .

Be it enacted by the President with the advice and consent of the
Parliament of Singapore, as follows:

Singapore
RSA Conference 2019
Asia Pacific & Japan



Office of the
Privacy Commissioner
of Canada

Commissariat
à la protection de
la vie privée du Canada



Privacy Commissioner
Te Mana Matapono Matatapu

Philippine Data Privacy Act of 2012
RA - 10173



Personal Information Protection Act

**KOREAN GOVERNMENT
PERSONAL INFORMATION PROTECTION COMMISSION**

EXPOSURE DRAFT

2013-2014-2015

The Parliament of the
Commonwealth of Australia

HOUSE OF REPRESENTATIVES/THE SENATE

EXPOSURE DRAFT

**Telecommunications and Other
Legislation Amendment Bill 2015**

No. , 2015

(Amendment-General)

A Bill for an Act to amend the *Telecommunications Act 1997* and other legislation, and for related purposes



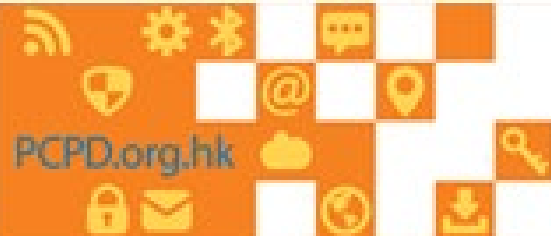
pdpc

PERSONAL DATA
PROTECTION COMMISSION
SINGAPORE

PCPD



H K



香港個人資料私隱專員公署
Privacy Commissioner
for Personal Data, Hong Kong

Under both approaches, risk and impact assessments will need to be conducted to identify and mitigate the risks and impact to the individuals.

Mandatory Data Breach Notification



Industry 4.0 Convergence, The Perfect Storm

Networking:

- Ethernet, IP, Wifi, Modbus, Profibus, DNP3, Gateways
- FOG-Edge Computing
- Mobile broadband

Environment:

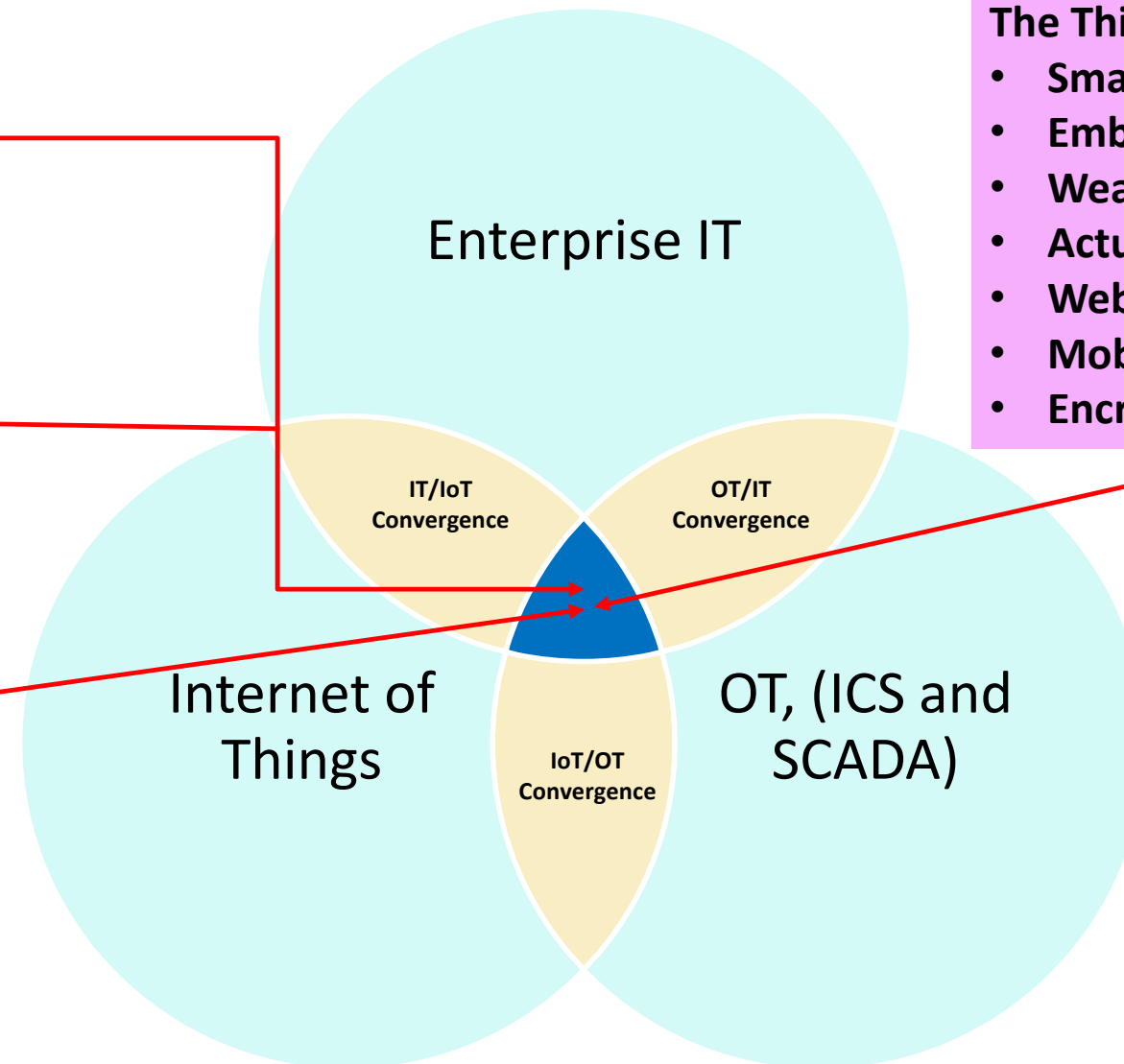
- Legislative and Jurisdictional changes
- Talent
- Geo-political

Data:

- Cloud Infrastructure
- Big data predictive & analytics engines
- IoT Platforms
- Machine Learning and A.I.

The Things:

- Smart devices
- Embedded Micro Sensors
- Wearable Tech
- Actuators
- Web APIs/REST APIs
- Mobile Apps
- Encryption





1. Industry 4.0 comes with all its promises and vulnerabilities.
2. The trend of digital transformation = convergence which goes beyond IT/Control System narrative: extends to IoT and SIS – increasing risk;
3. Most attacks on control systems tend to go through the enterprise IT environment & the attack cycle is very similar to traditional enterprise IT systems.
4. Law:
 - Understand & does it apply?
 - Then determine how to comply.
5. Talent is going to be key.
 - Job description
 - Panels
6. Due diligence – understand/manage digital risk.



LEONARD KLEINMAN
Chief Cyber Security Advisor

Telephone +61 417 919 668
Email leonard.kleinman@rsa.com
Address Canberra, Australia

Thank You!