



AIOTI

ALLIANCE FOR INTERNET OF THINGS INNOVATION



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Chairman

Working Group 11: Smart Manufacturing Industry

Member of AIOTI Steering Board

IoT International Symposium 2018

Smart IoT Acceleration Forum, Tokyo
9th March 2018

Session3: Smart home in the future
–AI speaker, smart home appliance,
and smart services bring drastic
change in our life





Future – Business View

- Learning from Robotics Success Factors Design and Constitution
- Transfer Insights from Artificial Intelligence to Business

Issues, Solutions – Social View

- Challenges in the Market and Impact of the EU for Smart Home

Challenges in the Market and Impact of the EU for Smart Home

Horizontally influenced by
IoT Research, Innovation Ecosystems, IoT Standardisation, IoT Policy (GDPR, Cybersecurity Package)

Vertically influenced (excerpt) by
Smart living environment for ageing well, Smart Cities, Smart Mobility, Wearables,
Smart Buildings and Architecture

Influence of upcoming Cybersecurity Package and General Data Protection Regulation (GDPR)

Security

- **Security** by design and by default
- **Encryption**
- **Up-to-date** software
- **Strong authentication** settings installed by default

Privacy

- **GDPR** based user rights

Safety

- **Product safety legislation** needs to be amended to ensure that the security of all **connected devices** placed in the EU markets do not pose a safety risk for its users.
- The **General Product Safety Directive** as well as product specific safety legislation (Toy safety directive, Low Voltage Directive, Radio Equipment Directive, etc) must be updated to ensure that they are in line with the new '**security for safety**' concept of the general legal framework

ANEC and BEUC recommendations

- A minimum set of security measures should be obligatory for all connected products as a condition for putting them on the market.
- These requirements should at least include encryption, software updates and strong authentication mechanisms:

**It is worth reading this here
Not now!**

o All manufacturers and service providers should ensure that the data stored in their services and the data stored by their connected products is encrypted. Manufacturers and service providers shall also ensure that third parties accessing the data keep it properly encrypted. Finally, communications coming in and out of the connected product should be encrypted end-to-end.

o Manufacturers shall make sure that when they first put a product on the market, the software that runs on the product is as secure and up-to-date as it can be. In addition, manufacturers should also be required to ensure that the software is updated during the entire lifecycle of the product whenever this is needed to guarantee that it remains secure

o Connected products and services intended for consumers should by default only accept state of the art security authentication methods. This is for example the case of passwords that contain a certain level of complexity (e.g. numbers, capital letters, etc.) and two-factor authentication systems.

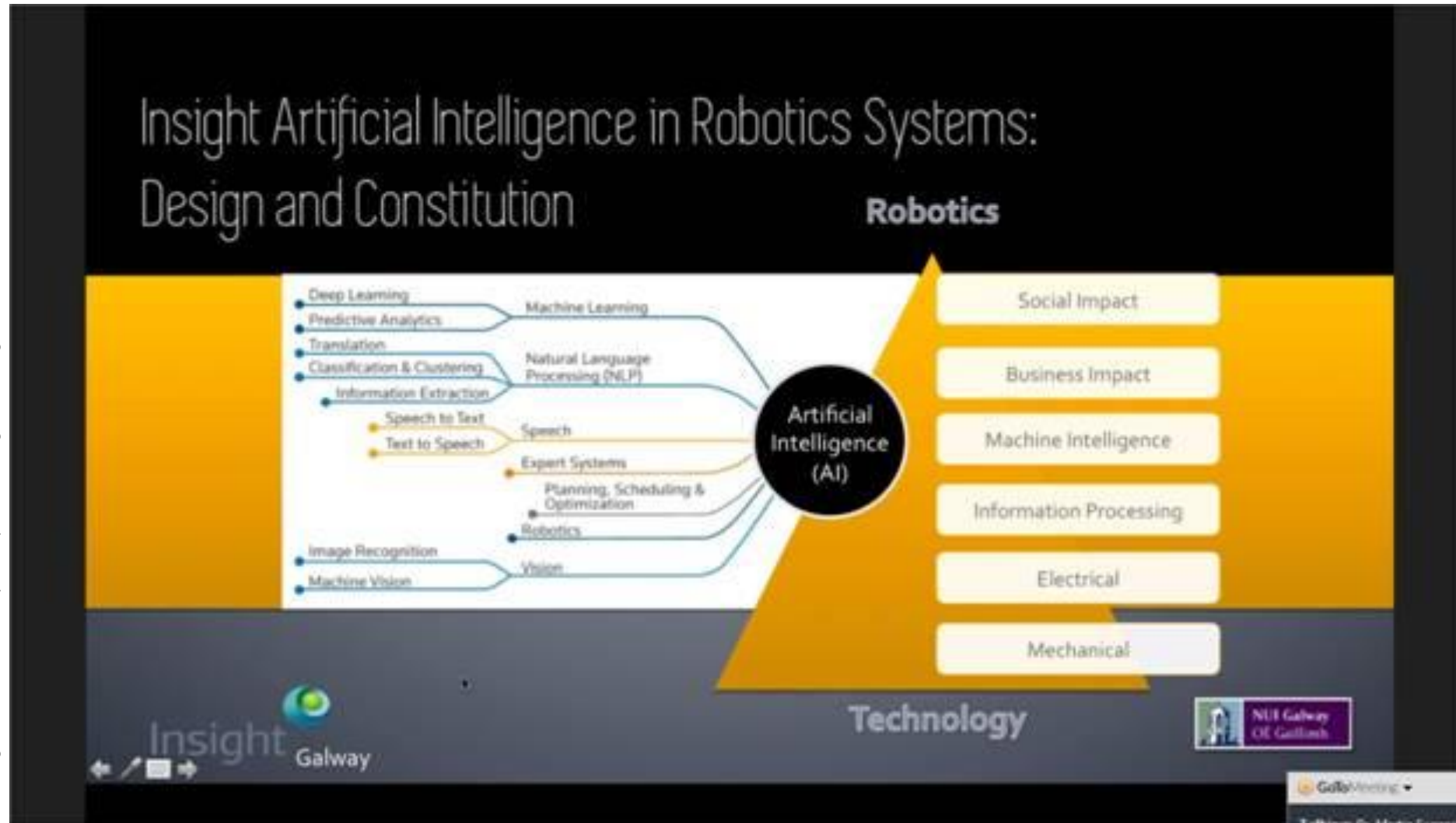
The regulatory framework establishing a minimum set of security requirements shall be regularly reviewed to ensure that the list of security requirements follows the technological evolution.

- The personal data collected through connected devices shall be adequately protected according to the General Data Protection Regulation.



Learning from Robotics Success Factors Design and Constitution

Transfer of Requirements for Success in Design and Constitution of Robotics to Smart Home Infrastructures



Ref: Insight Centre for Data Analytics, <https://www.insight-centre.org/>



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Transfer Insights from Artificial Intelligence to Business

Transfer of Insights of Big Data for Artificial Intelligence as Success Factor of Smart Home Infrastructures

The Importance of BIG Data for Artificial Intelligence

Insight View on Data Systems to Machine Intelligence Evolution

Starting Point:
„Good“ Data Source =
Data contains
relevant observations

Models & Taxonomy

Cloud Computing
Devices
Internet

Data Sets
Events Detection

Data Series
Data Analytics

Data Streams
Complex Analysis

Data Torrents
AIRE Research
High Performance Data-Analysis

Insight Galway

NUI Galway
OE Galway

Galway Training

Ref: Insight Centre for Data Analytics, <https://www.insight-centre.org/>



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Many thanks for your patience
Q & A to follow

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