

Emerging Technology and Digital Ethics

A proposed path for the next 20 minutes



Definitions - Digital Identity and
Artificial Intelligence - **Digital Ethics**

Facts about the technology – Navigating
misconceptions and identifying **real issues/risks**

Facts in the UN – what is the
current **lay of the land?**

UNICC perspective - how can we ensure these
technologies are **implemented correctly?**

History will teach us nothing...

"If he has composed his writings with knowledge of the truth, and is able to support them by discussion of that which he has written, and has the power to show by his own speech that the written words are of little worth, such a man ought not to derive his title from such writings, but from the serious pursuit which underlies them."

Phaedrus, Plato



- 
- The background of the slide features a dark, monochromatic image of several fingerprints. The ridges and valleys of the fingerprints are visible, creating a textured, circular pattern that recedes into the distance, giving a sense of depth and focus on the concept of identity.
- A **digital identity** is information on an entity used by computer systems to represent an external agent. That agent may be a person, organization, application, or device.
 - Advantages
 - SDG Target 16.9: By 2030, provide legal identity for all, including birth registration - imagine being paperless
 - Any (meaningful) transaction requires the establishment of an identity
 - Concerns
 - Security
 - Privacy

Opportunities in the UN context

- Potential **efficiency gains**
 - On-boarding process, from days to hours
 - Pension eligibility checks from 2 months to 2 minutes
- Possible **user stories**
 - Authentication to different UN agency system or platform
 - Physical access to any UN building
 - Secondment or transfers to other UN agencies
 - Portability of academic, language or training certificates

Looking at the mandate of the UN

- Identity is a cross-cutting concern to a number of very interesting and compelling use cases which will likely be of interest in the mid to long term. Digital identity solutions might help some of the UN's current 17 Goals for Sustainable Development



A close-up, low-angle shot of a metal dial with numbers, likely from a watch or a mechanical device. The dial is in the foreground, slightly out of focus, and is set against a dark background of a circuit board with various components. The lighting is dramatic, highlighting the metallic texture and the numbers on the dial.

Cybersecurity

"episodes of cyber warfare between states already exist" and "there is no regulatory scheme for that type of warfare" because "it is not clear how the Geneva Convention[s] or international humanitarian law applies."

"[we need] to have a serious discussion about the international legal framework in which cyberwars take place."

UN Secretary-General António Guterres



Cybersecurity

- Common Secure
- Common Security Operations Centre (cSOC)

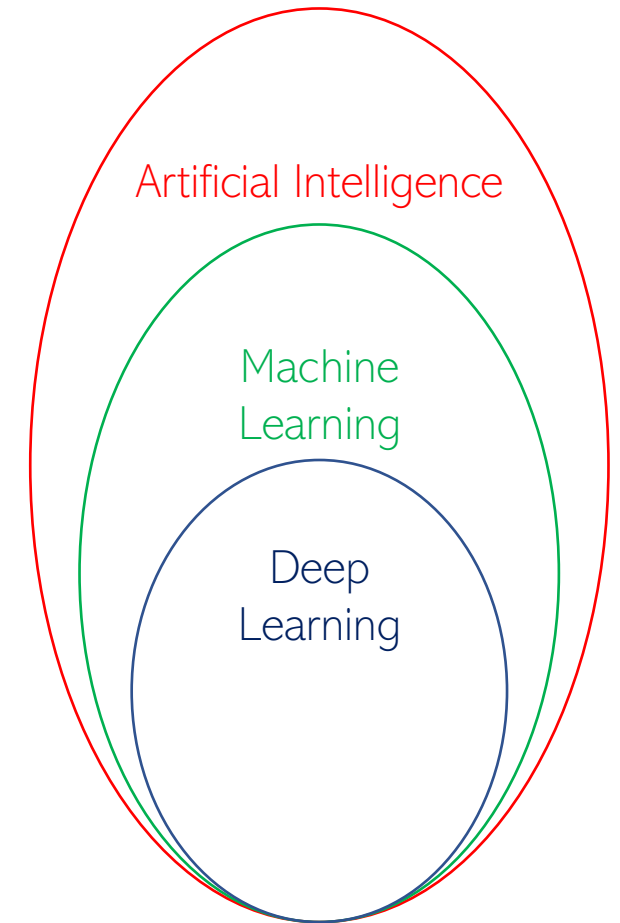
Privacy

- The United Nations System Organizations have agreed to Personal Data Protection and Privacy Principles, adopted by the UN High-Level Committee on Management (HLCM) at its 36th Meeting on 11 October 2018
 - States that “personal data should be processed in a non-discriminatory, gender sensitive manner”
 - Principles include: Fair and legitimate processing, purpose specification, proportionality and necessity, accuracy, confidentiality, security, transparency, accountability



A few definitions...

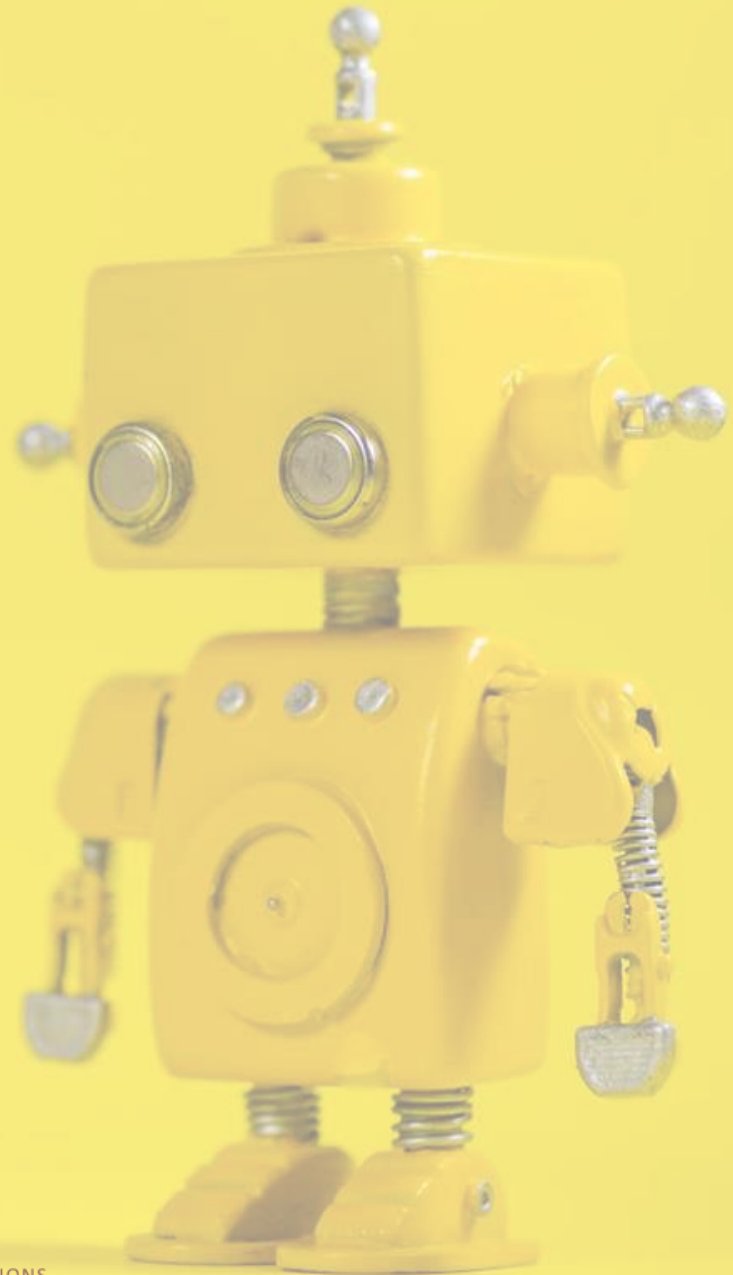
- Think of **artificial intelligence** as the entire universe of computing technology that exhibits anything remotely resembling human intelligence (weak vs. strong-AI).
 - AI systems can include anything from a problem-solving application that makes decisions based on complex rules or if/then logic to a machine that can pass the Turing test.
- **Machine learning** is a subset of AI application that learns by itself. It actually reprograms itself, as it digests more data. It only has one “hidden layer”. They are capable of supervised learning.
- **Deep learning** is a subset of machine learning application with many “hidden layers” that teaches itself to perform a specific task with increasingly greater accuracy without human intervention (unsupervised learning).



IBM taxonomy

Intelligence?

- As machines become increasingly capable, tasks considered to require “intelligence” are often removed from the definition of AI, a phenomenon known as the [AI effect](#).
 - For instance, optical character recognition is frequently excluded from things considered to be AI, having become a routine technology
 - Speech recognition – The Amazon Echos and Google home devices are soon to follow, although there is more than meets the eye...



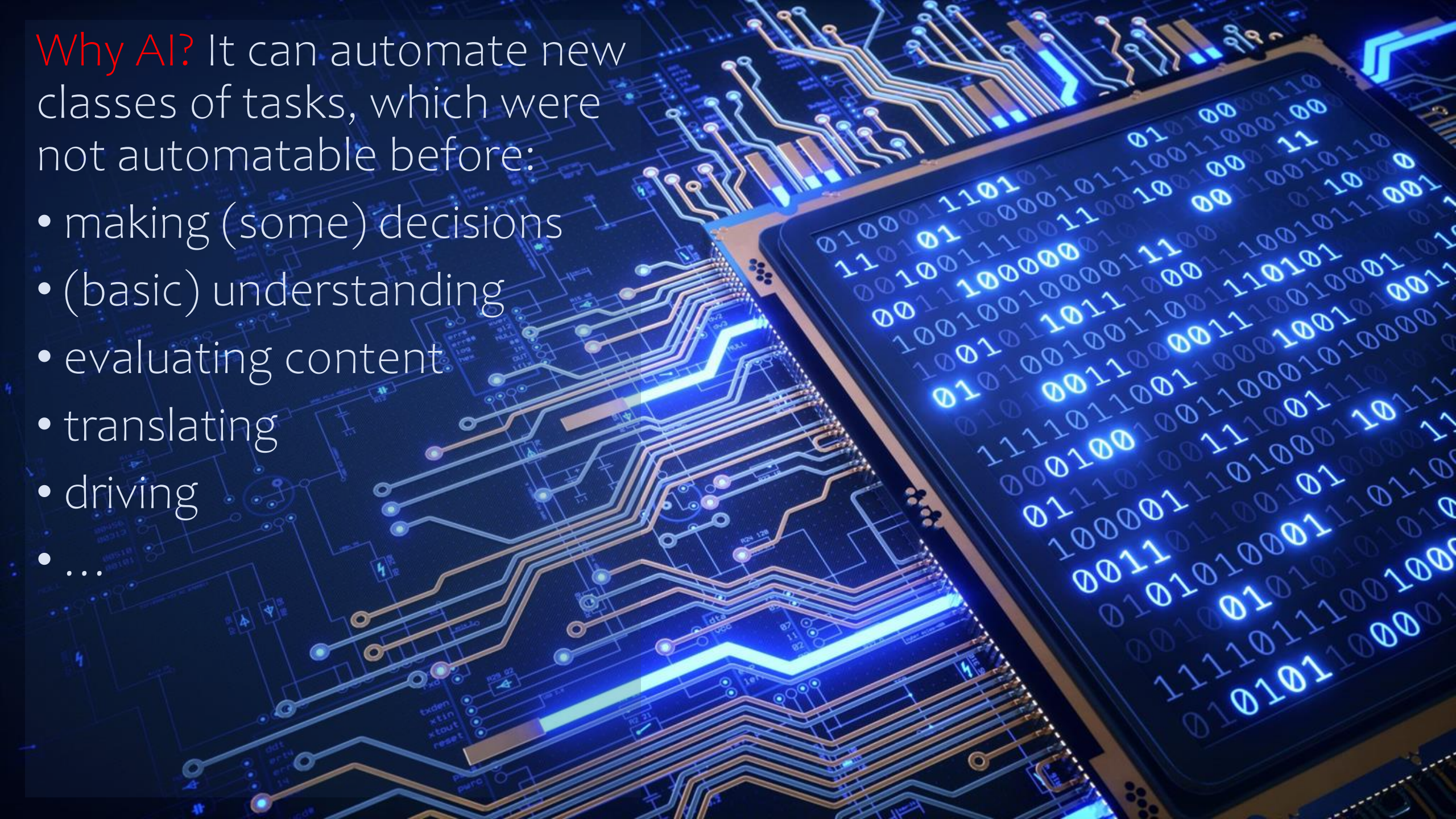
ICC

international
computing
centre

ICT SOLUTIONS
FOR THE
UN FAMILY

Why AI? It can automate new classes of tasks, which were not automatable before:

- making (some) decisions
- (basic) understanding
- evaluating content
- translating
- driving
- ...



Risks/Concerns

- Accountability
- Could inherit bias from datasets
- Could be a black box (deep learning)
- Fragility/vulnerability of AI



UNICC perspective

- UNICC has a “mezzanine” view.
- **Common solutions** that have a strong focus on **compliance**.
- Certification of services to ensure a high level of security and compliance.
 - We are specifically looking at extending certifications to ensure that apps have a higher level of data protection (ISO 27701 - privacy information management)
- UNICC is supporting the UN system on Cybersecurity.

Thank you!



Links

- <https://www.unsystem.org/CEBPublicFiles/UN-Principles-on-Personal-Data-Protection-Privacy-2018.pdf>
- <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- <https://www.unicc.org/news/2020/11/13/un-digital-id-a-building-block-for-un-digital-cooperation/>
- <https://id2020.org/>
- <https://www.ibm.com/cloud/learn/what-is-artificial-intelligence>
- <https://www.ibm.com/cloud/blog/ai-vs-machine-learning-vs-deep-learning-vs-neural-networks>
- <https://www.harvardmagazine.com/2019/01/artificial-intelligence-limitations>
- https://en.wikipedia.org/wiki/Ethics_of_artificial_intelligence
- <https://undocs.org/JIU/REP/2019/5>