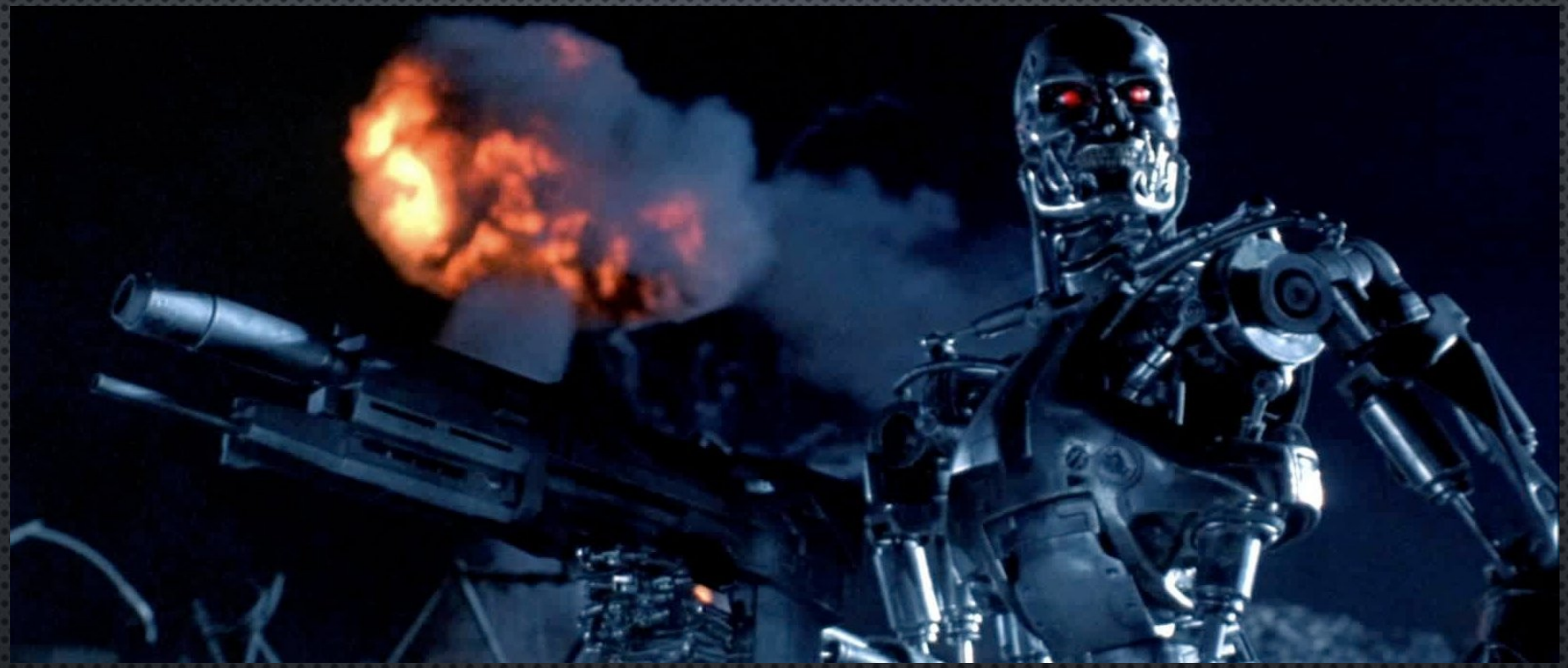


Tým "A", Alias:

Zuzana Červenková, Ondřej Herudek, Zuzana Kobrová, Lucie Škrípová

BSS411 - Moderní technologie a bezpečnost

Rizikové vlastnosti AI

- Nedostatečná právní úprava použití a zodpovědnosti
- možná zneužitelnost - teroristé
- Vyvinutí nevhodné metody pro dosažení cílů
- Post-projektová zkušenost a náročné předvídání vývoje jednotlivých AI
- Náročná kontrola autonomních systémů - možná ztráta kontroly (lokálně, obecně)
- Při dostatečné sofistikovanosti systémů samostatné přeprogramování se (scherer 2016)

ARTIFICIAL INTELLIGENCE

Let the games begin..

Právní aspekty

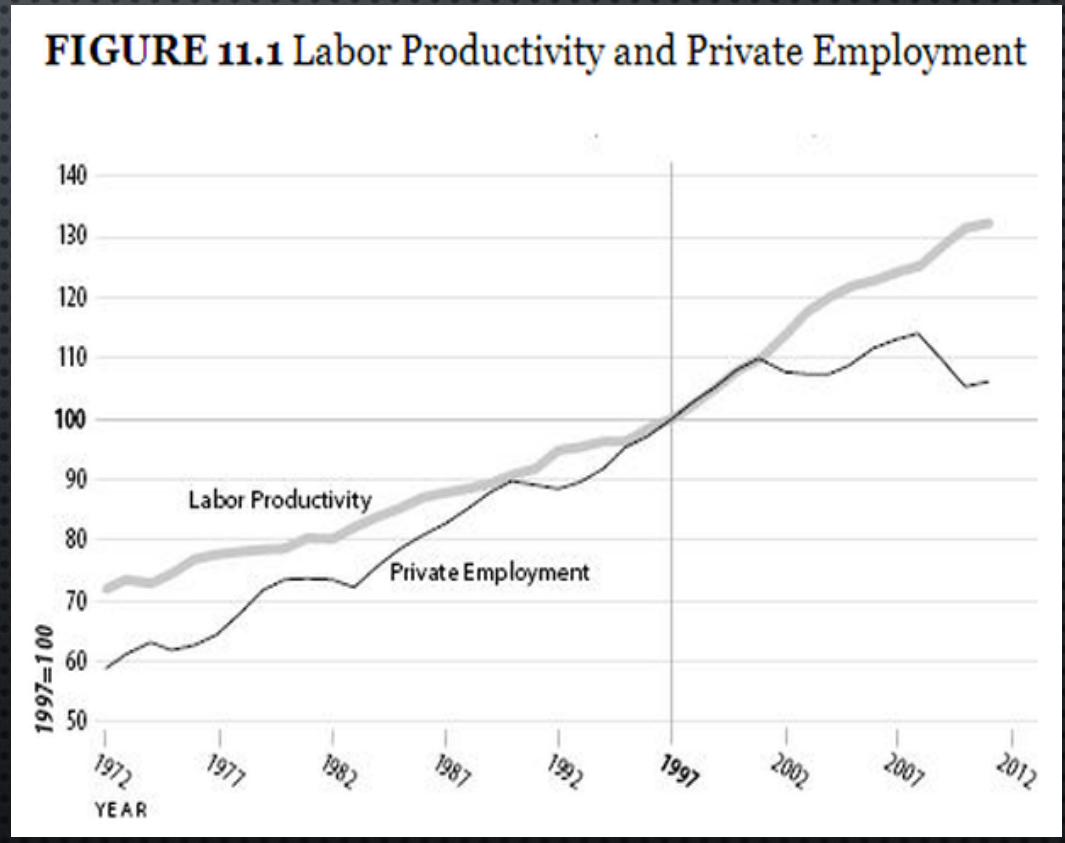
- Zákony obtížně reflektují rychlý vývoj umělé inteligence
- Nutnost jednotného globálního právního rámce
- Kdo bude zodpovědný za škody způsobené AI?
- Autonomní zbraně nejsou v souladu s mezinárodním lidským právem (Human rights watch, 2012)

MY LOGIC

IS UNDENIABLE

EKONOMICKÉ ASPEKTY

- SCHOPNOST JEDNAT SAMOSTATNĚ BEZ LIDSKÉ PRÁCE - PRŮMYSL 4.0
- ZNIČÍ VÍCE PRACOVNÍCH MÍST NEŽ VYTVOŘÍ - PRODUKTIVITA PRÁCE STOUPÁ, ALE POČET ZAMĚSTNÁNÍ KLESÁ (BRYNJOLFSSON IN: HEATH)
- MŮŽE ZCELA NAHRADIT NĚKTERÁ ZAMĚSTNÁNÍ - PŘEKLADATELÉ, ŘIDIČI



Změna bojiště

- Chyby v identifikaci cílů - zaměření a útok jako výlučně lidská činnost
- Potenciál collateral damage stále stejný (Sharkey, 2012)
- BAE Systems Dron Taranis – možnost autonomního dronu (Del Prado, 2015)
- Autonomní pilotní systém Alpha - Cincinnatská Univerzita a společnost Psibernetix (Baraniuk, 2016)
- Otevřený dopis týkající se autonomních zbraní - "Research Priorities for Robust and Beneficial Artificial Intelligence"

HOW TARANIS WORKS

BAE Systems Taranis

Length: 12.43 m (40 ft 9 in)

Wingspan: 10 m (32 ft 10 in)

Maximum speed: Mach < 1

Armament: 2 x internal missile bay provision

A semi-autonomous unmanned combat aerial vehicle (UCAV), the Taranis is designed to fly intercontinental missions, and will carry a variety of weapons, enabling it to attack both aerial and ground targets

1 Taranis will use artificial intelligence to reach the search area via the most effective route

2 Onboard sensors will allow Taranis to automatically evade threats such as SAM missiles

3 When Taranis identifies a target it sends a signal to mission control for confirmation

4 A human operator at mission control can verify the target as legitimate and give the go-ahead to attack

TARANIS THE STEALTH CHALLENGE

TARANIS

BAE SYSTEMS INSPIRED WORK

Design

Taranis has been designed in a shape which enables it to stay off radar while ensuring it retains its aerodynamic performance and controllability.

Tackling these design challenges is built upon learning from manned aircraft including the Jaguar and EAP – the technology demonstrator which led to Typhoon – as well as the Raven and Corax unmanned aircraft.

Communications

Communications on Taranis ensure a human is always in the loop to command, control and monitor the aircraft without compromising its ability to stay off radar.

Intakes

The Taranis air intake is configured in a way to reduce its appearance on radar whilst ensuring engine air is of a high enough quality to retain the engine's performance.

It is the product of significant advances in aeronautical, acoustic and signature engineering and manufacturing.

Materials

The design and manufacturing techniques used on Taranis are the product of 20 years of research programmes.

Affordability has been at the heart of the design and manufacture of the structure of the aircraft.

Exhaust

The Taranis exhaust system is set up to reduce the 'signature' of emissions at the same time as ensuring the engine performs effectively. This has been achieved through significant advances in aero, thermal, signature and materials engineering.

Avionics and autonomy

Taranis strikes a balance between having the autonomy to achieve its performance and having 'Ethical Human Authority' - a man in the loop.

Its mission commander will always have authority for any attack or weapon release.

Sensors

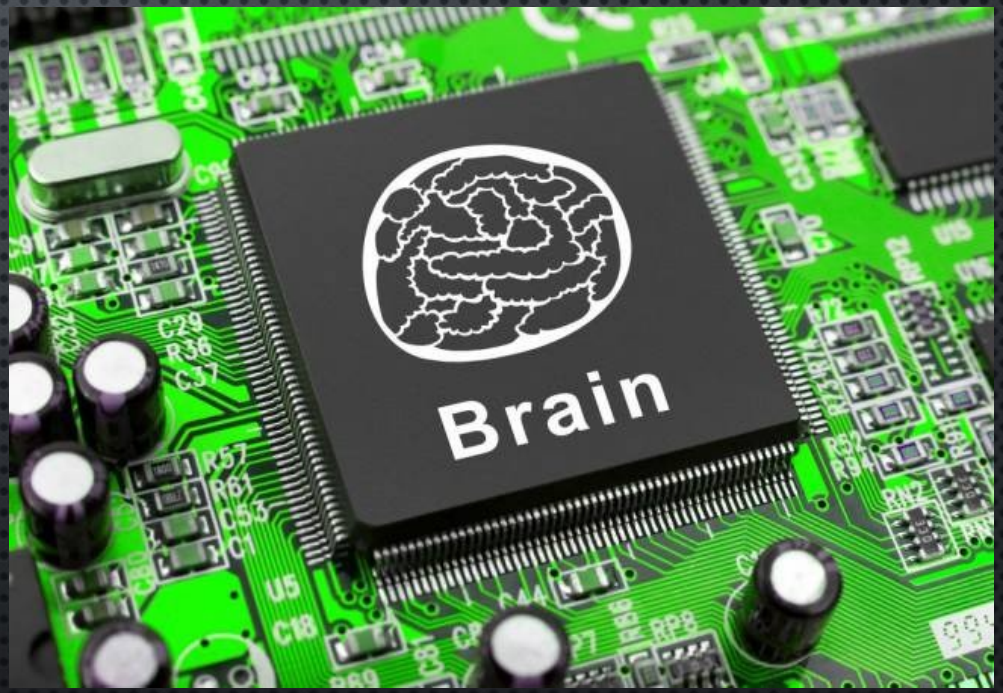
How Taranis's sensors operate without compromising the ability of the aircraft to stay off radar.

EXISTENČNÍ RIZIKO

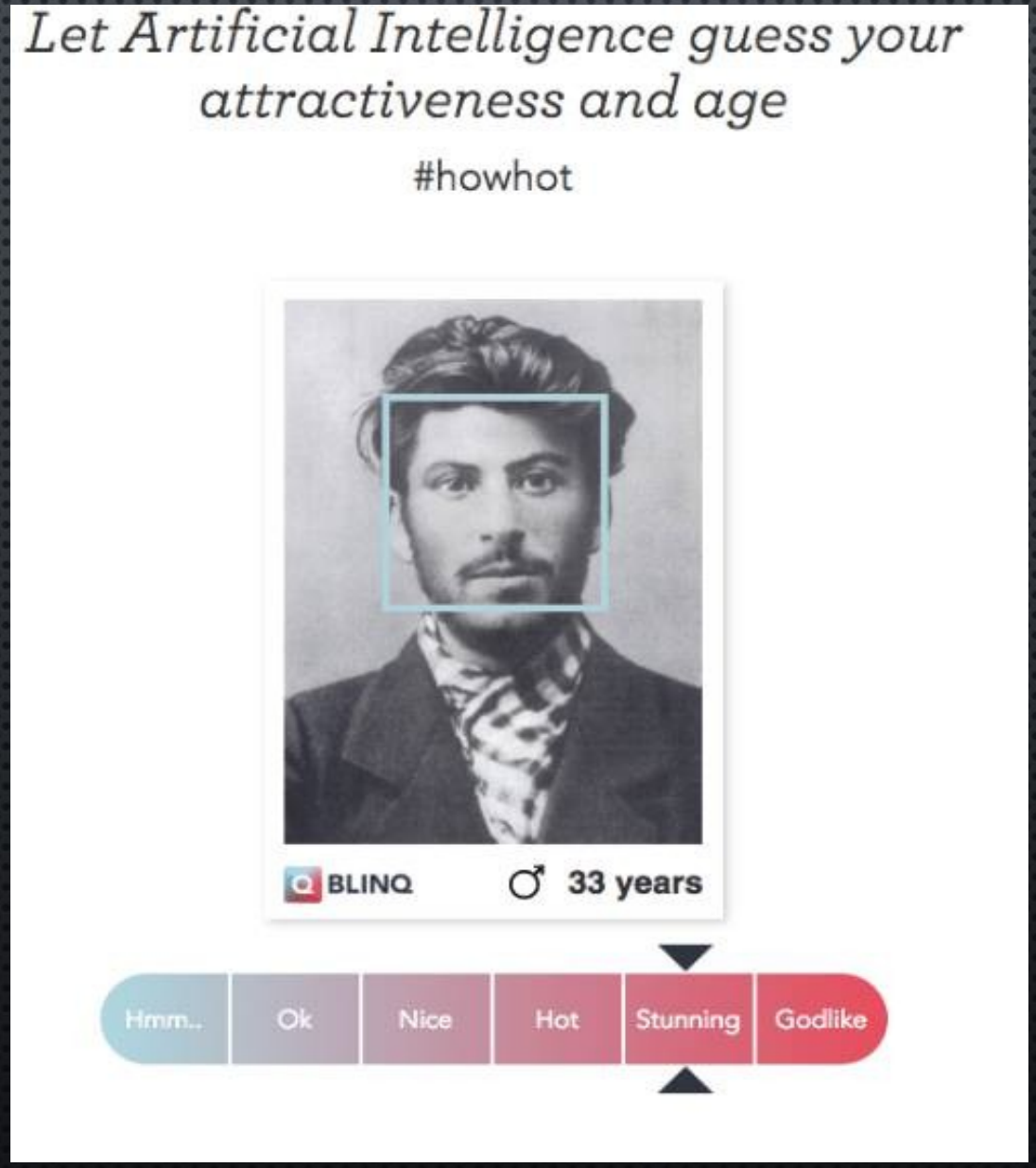
- MOORŮV ZÁKON V KONCÍCH?
- TURNIGŮV TEST VS. ARGUMENT ČÍNSKÉHO POKOJE

- DALŠÍ ZTRÁTA SOUKROMÍ - BIG BIG DATA

- REPLIKACE?
- ČLOVĚK JAKO HOSTITEL URČENÝ K LIKVIDACI
- TECHNOLOGICKÁ SINGULARITA



DĚKUJEME ZA POZORNOST



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