

STOA Workshop:
Humans vs machines
Ehtical challenges and promises for development

Ekkehard Ernst

20 March 2019



@ekkehardernst

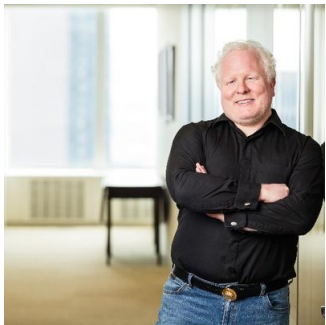


ernste@ilo.org



**SOCIAL JUSTICE
DECENT WORK**

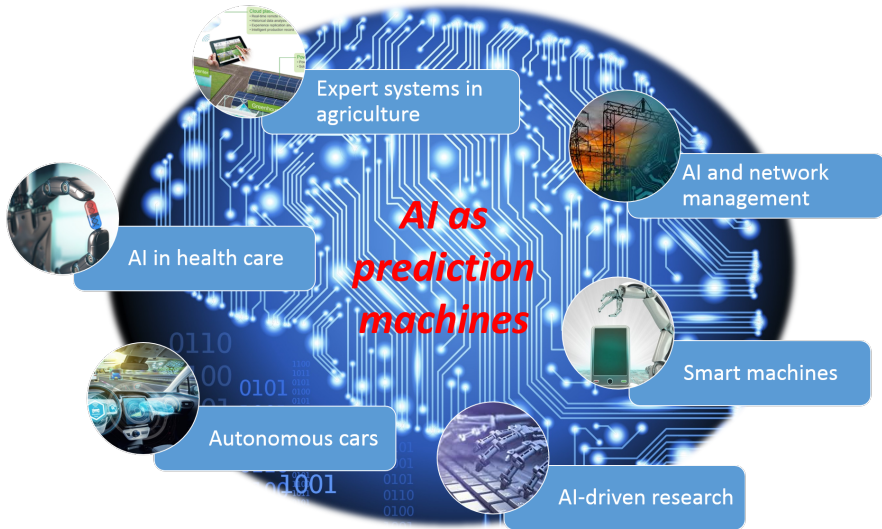
Should we be afraid of AI?



“Large neuronal networks today have a maximum of 1 million nodes but consume the energy of a nuclear power plant. The human brain has 84 billion neurons and runs on a slice of bread.”

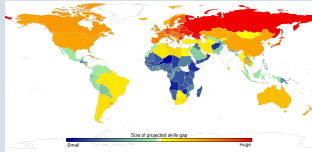
Chris Boos, AI expert and founder of Arago

Where can we see current uses?



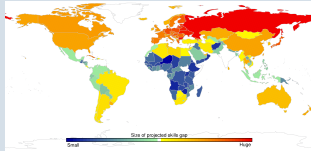
SDG 10 - The four inequality challenges of AI

Rising demand for skills

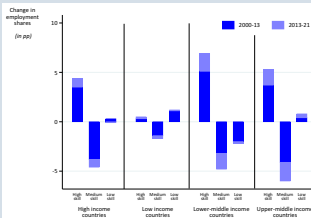


SDG 10 - The four inequality challenges of AI

Rising demand for skills

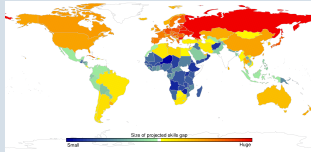


Job polarization

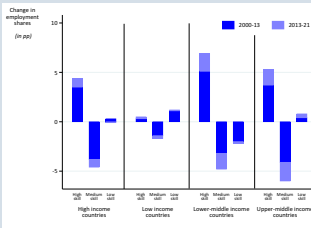


SDG 10 - The four inequality challenges of AI

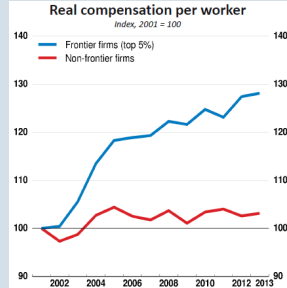
Rising demand for skills



Job polarization

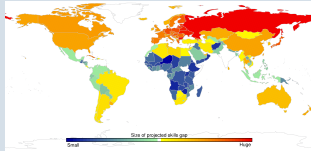


Winner-takes-all with AI

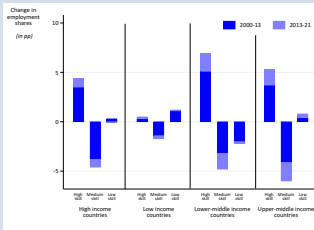


SDG 10 - The four inequality challenges of AI

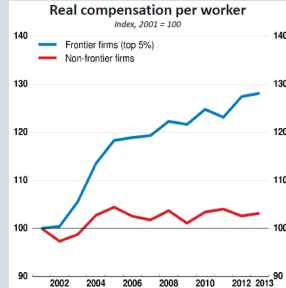
Rising demand for skills



Job polarization



Winner-takes-all with AI

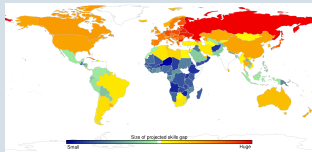


Granular discrimination

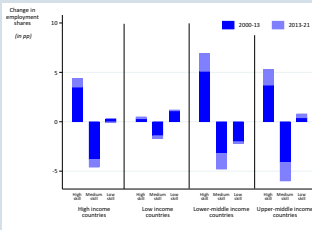
- ▶ Enhances matching efficiency....
- ▶ ...but increases price discrimination
- ▶ and perpetuates historical biases

SDG 10 - The four inequality challenges of AI

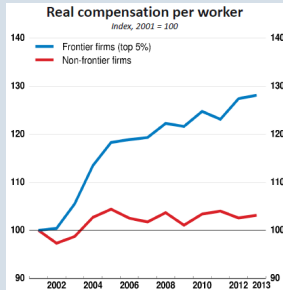
Rising demand for skills



Job polarization



Winner-takes-all with AI



REUTERS



Amazon scraps secret AI recruiting tool that showed bias against women

Granular discrimination

- ▶ Enhances matching efficiency....
- ▶ ...but increases price discrimination
- ▶ and perpetuates historical biases

SDG 8 - Promises of AI for development

Structural transformation

...is a constant feature of our economies
...might bring more inequality

AI promises large productivity gains

...including in low-skilled sectors
...with strong boost for developing countries

Preparing businesses

...prepare workforce to use digital technologies
...be aware of significant up-scaling costs

AI transforms capitalism

...creates challenges for sharing wealth
...and requires international cooperation

Want to know more?



The economics of artificial intelligence: Implications for the future of work



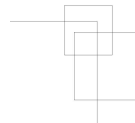
Thank you!



RESEARCH DEPARTMENT WORKING PAPER NO. 36

Robots worldwide: The impact of automation on employment and trade

FRANCESCO CARBONETTO
ERIKHARD ERNST
ENZO WEBER



OCTOBER 2018