



CATÓLICA
LISBON
B/SINESS & ECONOMICS

LEADING TODAY.
INSPIRING TOMORROW.

How can we use technology to shape the future of work?

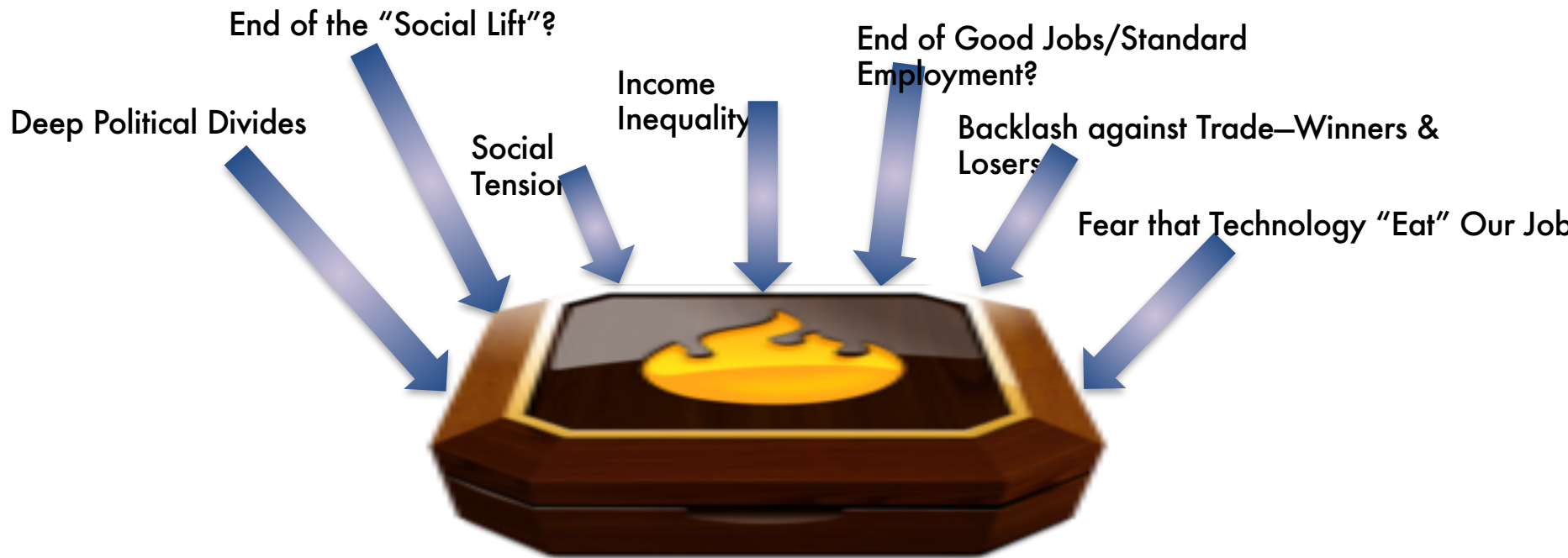
Pedro Raposo

Catolica Lisbon School of Business and Economics

GBSN Conference, November 2019

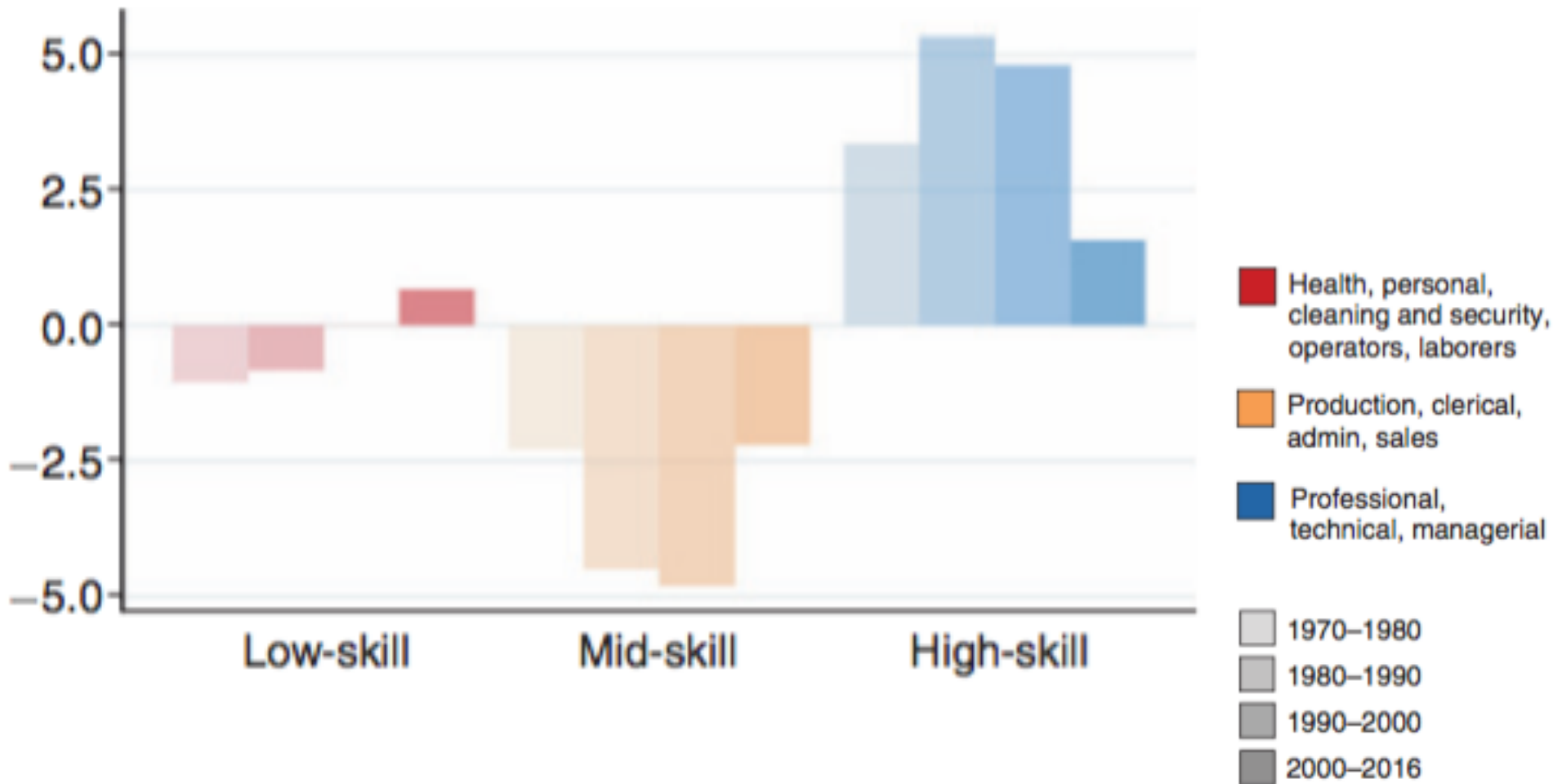


We are Sitting on a Tinderbox



Source: Thomas Kochan, 2019

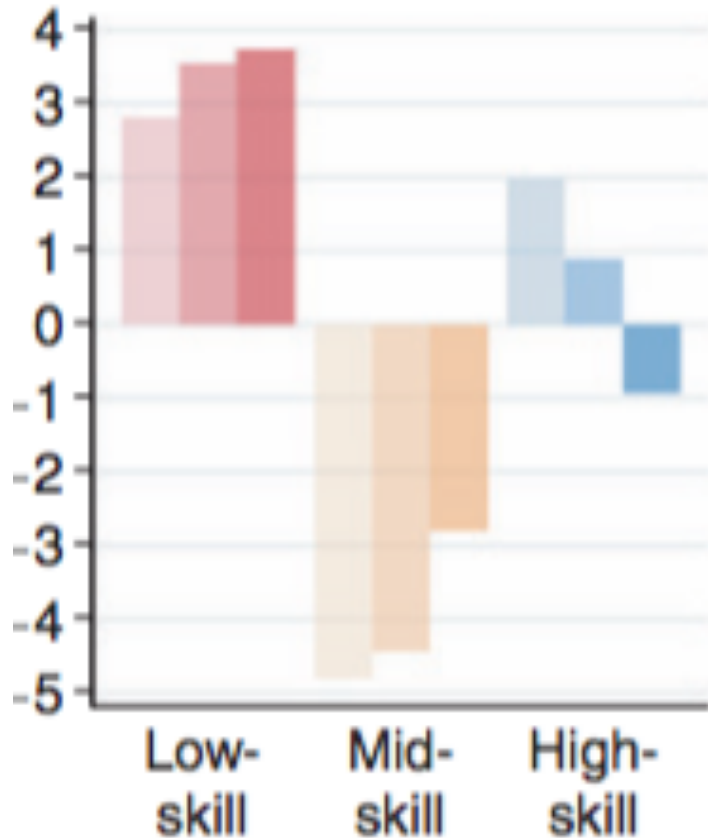
The Future of Work: Structure of work polarized Biased Technological Change



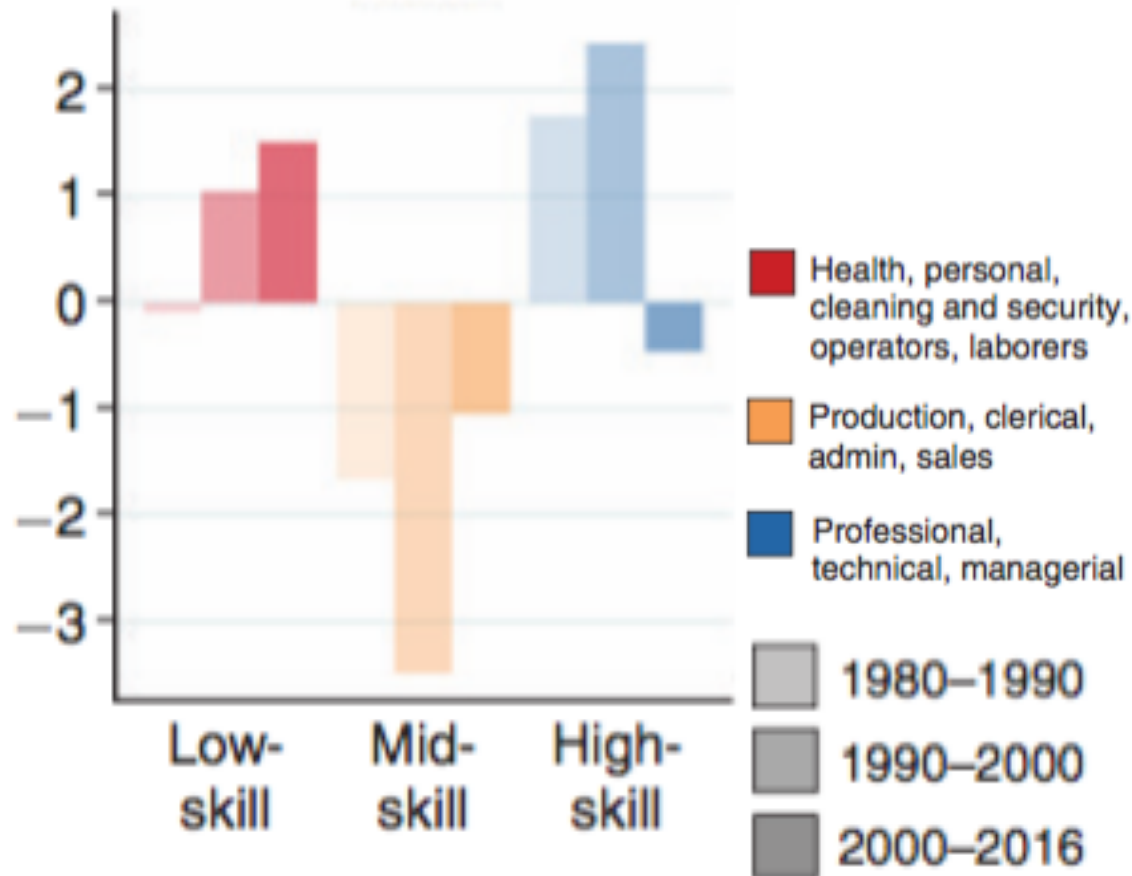
Note: Changes in occupational employment shares among working-age adults, 1970-2016. Source: US data (David Autor, 2019)

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Panel A. Non-college



Panel B. College



Note: Changes in occupational employment shares among working-age adults, 1970-2016. Source: US data (David Autor, 2019)

Routine jobs that could be automated were concentrated in the middle of the skills distribution

- Non-Routine cognitive jobs (manager) paid even better because there are complementarities to computers
- Routine jobs (clerk) have negative shock because they are easily replaced by computers
- Non-Routine manual jobs (janitor) survive because it is not easy to substitute them by computers but they do not benefit from them so their wages stagnate



- The world is changing rapidly.
- A few years ago, artificial intelligence was no more than a fictional HAL 9000 in Space Odyssey.
- Today, there are Alexas and Peppers, and apps that mix real universes with virtual ones.
- At OutSystems, the goal is to keep pace with this ever-changing world. More than that, they strive to be one step ahead.

The software delivery industry is the most **manual** industry in the world.

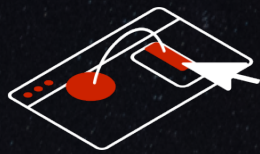




Low-code
is about
applying
automation
to software
delivery.

The Future of Work: OutSystems case study

OutSystems low-code development platform



Visual Full-Stack Development

Get an app really fast...
8 weeks is average



Deploy to Any Touchpoint

Responsive Web Apps
Native Mobile Apps
Voice Assistants/Bots



Full Life Cycle

Create > Deploy >
Monitor > Manage

“Software is eating the world, but AI is going to eat the software”

Jensen Huang, CEO Nvidia

“AI will decode software for everyone”

Paulo Rosado, CEO OutSystems

Now in Outsystems:

AI is helping developers to develop the software the user needs,
proposing new code, finding and correcting bugs

In the future: AI might substitute developers

“If software is eating the world and AI is eating the software, we
might as well have a glass of wine”

Adapted by the House of Beautiful Business, Paulo Rosado CEO Outsystems

- Structure of work polarized and workers adapted
- Outsourcing is transforming the way the software delivery industry works
- AI might substitute the software engineers but according to the humankind history we will adapt
- Time to shift the debate about technology & Future of work:
 - From: Wild predictions of how many jobs digital Tech will eliminate and how many it will create
 - To: How can we use advancing technologies to shape the future of work in productive, equitable and inclusive ways (Tom Kochan, 2019)