

# How transformative will Artificial Intelligence really be?



"What types of jobs will be eliminated and created?"

### Who will be impacted? Manufacturing Automotive Energy Autonomous planning vehicles Banking & Logistics **Engine control** Insurance Maintenance Healthcare

### **Transportation** & Leisure

### Logistics

Routing **Autonomous** trucks

### Media & **Telecommunications**

- Fake news
- Journalism
- Cyber safety

#### Life sciences

- Diagnosis
- Planning
- Treatment

### Retail

- Stock
- Marketing
- Demand
- Pricing

### Energy, **Natural Resources** & Chemicals

- Smart grids
- Capacity planning

### **Professional** & Business services

### **Public sector**

- Teaching
- Crime prevention
- Social scoring
- Legal issues
- Fraud

 Infrastructure planning

Infrastructure, **Building** 

& Construction

- Intelligent cities
- Connectivity



## What are we expecting?

- The emergence of 'boundary-less' functions and, in time, functionless enterprises
  - The need to reinvent the way work gets done in order to realise productivity gains
    - Critical skills and capabilities we need for the future and how to develop them
  - New leadership capabilities as organisations redefine business models and become agile
    - The impact on society both from a capability need and the consequence of disruption
      - **6** Fairness, equality and shared value across the economy and social sectors

### Getting ready...

Despite doom and gloom scenarios for massive unemployment, cognitive technologies can spur new jobs and enhance human skills and expertise.

The kind of jobs will likely change, however, especially middle-income routine jobs that are likely to be replaced by cognitive platforms.

The challenge for leaders is to integrate and make the most of both kinds of labour.

A five-stage process of inquiry can help leaders systematically think through how the shape and size of their workforce should change.

Arguments range as to whether digital labour will remove or grow jobs, and in truth the jury is still out.



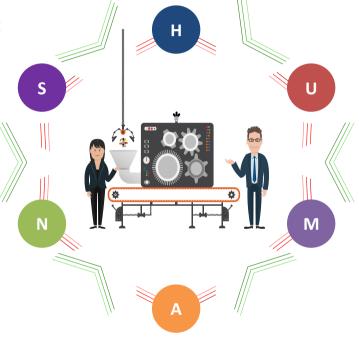


# Humans in the loop...

**Helpful**: Does the use of Al improve a business, medical science, society, ...?

Safe: Will patterns AI algorithms find in data reflect real life and be free from bias? Do we understand current human bias?

Nuts & Bolts: What is needed to take this forward, controls, regulation, technology etc., what skills, capabilities, laws, infrastructure etc. will we need?



**Achievable**: Is this real, and can we find a way of taking a first step?

Understandable: Are we comfortable that machine decisions will be "right"? Can we explain decisions to impacted parties?

Morally right: Have we applied ethical human values to this use case? What impact does this have on society and how will we manage skill-biased technological change?



### A national Al

st



"Stiffilite geoce has become a new engine of economic development."

### **Principles**

- Leadership of Technology
- Systematic Strategy
- Market Orientated
- Open Source

#### **Ambition**

- 2020: Catch up on theory, technology with the best in the world
- 2025: Major breakthrough in AI as driving force behind China's economy
- **2030**: Be at the forefront of AI driven innovation globally

28 page publicly available vision document on how and next steps



"Al Singapore will bring together ... vibrant ecosystem of Al start-ups and companies developing Al products, to grow the knowledge, create the tools and develop the talent to power Singapore's Al efforts."

### **Principles**

- Use AI to address major challenges that affect society and industry
- Invest in deep capabilities to catch the next wave of scientific innovation
- Broaden adoption and use of Al and machine learning within industry



### A national AI strategy & policy for

## Ireland needs to have a public policy on artificial intelligence

If we do not plan properly it will widen the skills gaps and create greater inequality

O Mon, Oct 15, 2018, 15:24

### **Shaun Murphy**



Earlier this year SB Met became the first unmanned vessel to cross the Atlantic Ocean

### THE IRISH TIMES

"AI has the potential to improve our world in so many ways. However, the potential impact of AI on, for one, jobs, is too significant to be left to the developers and owners of AI alone. We debate many public policy issues in *Ireland. It is time for* us to talk about AI. "



Taking action...

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### **Global Stage**

- Al Policy
- Trade
- Services
- Talent
- Data



Ireland

- Education
- Social
- Regulatory
- Legal
- Business



3

### Organisation

- Framework
- Strategy
- Board / 'C'
- Customers
- Staff

