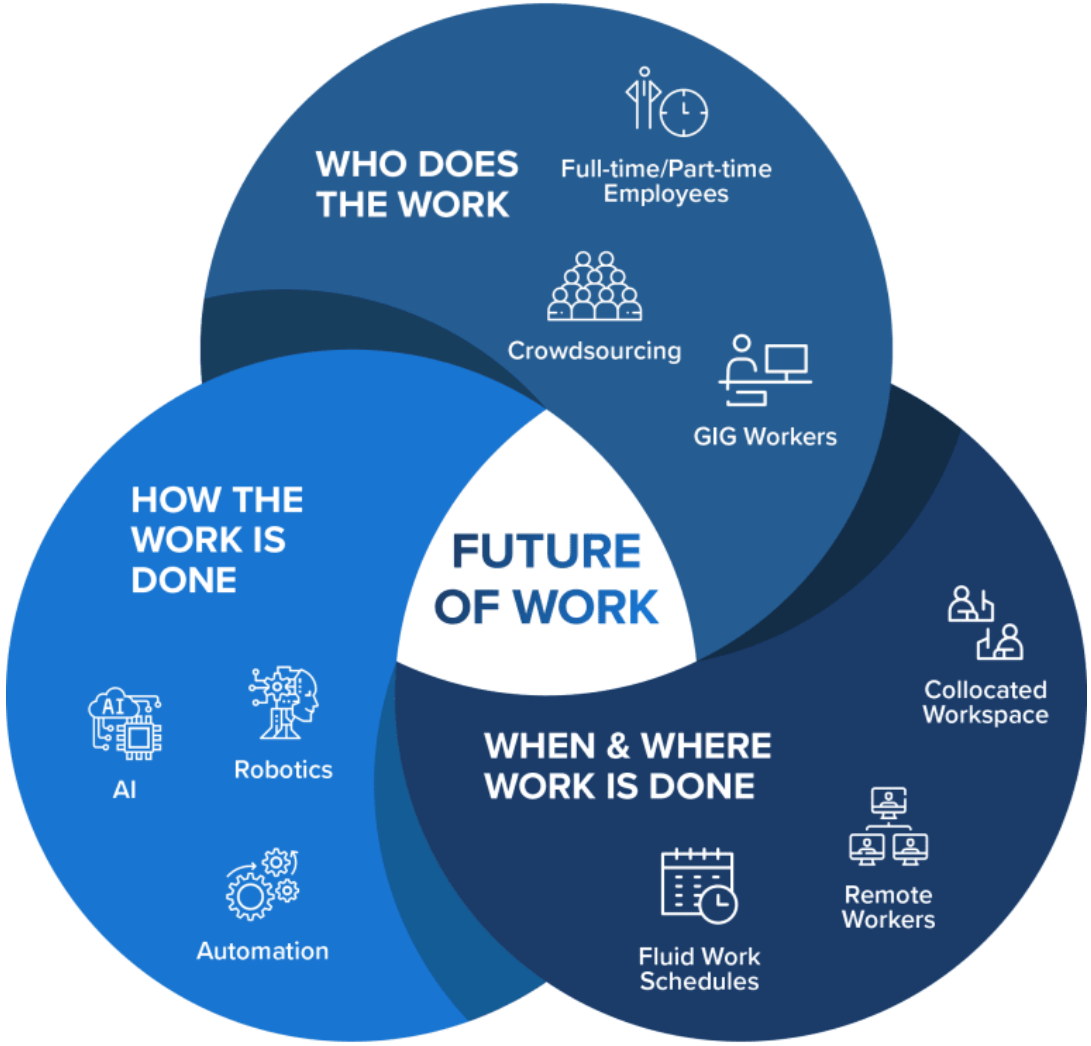
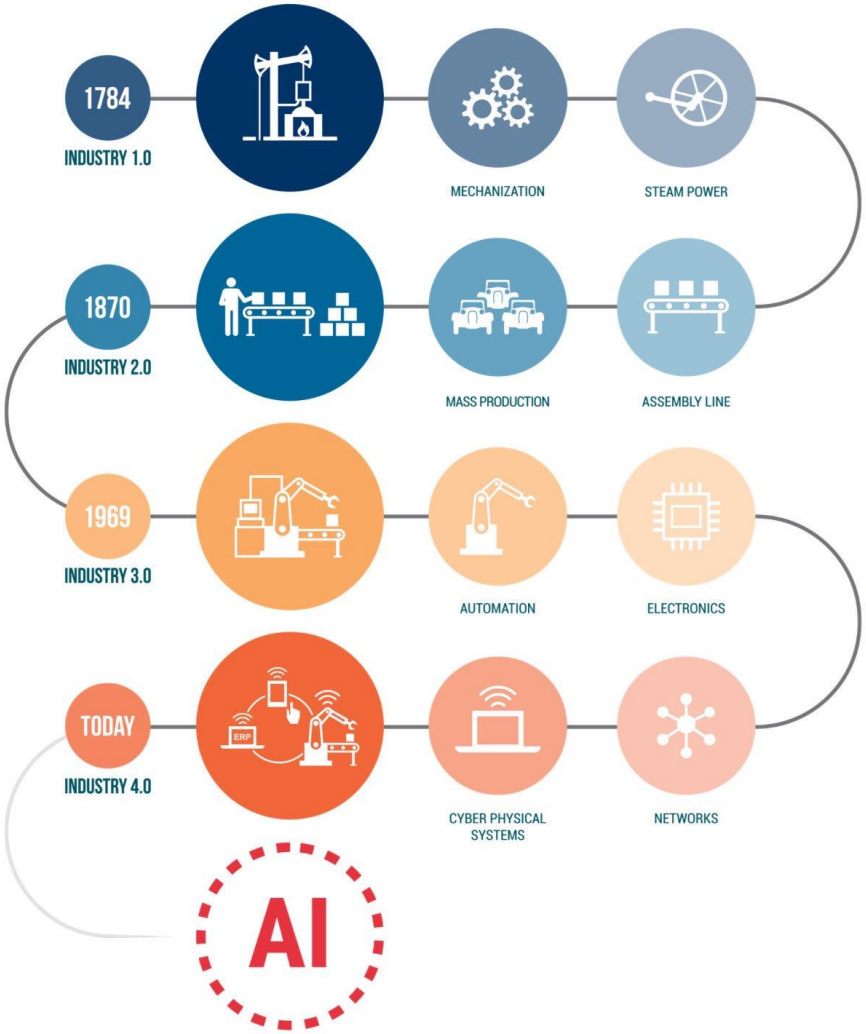
The Impact of AI on the Future of Work

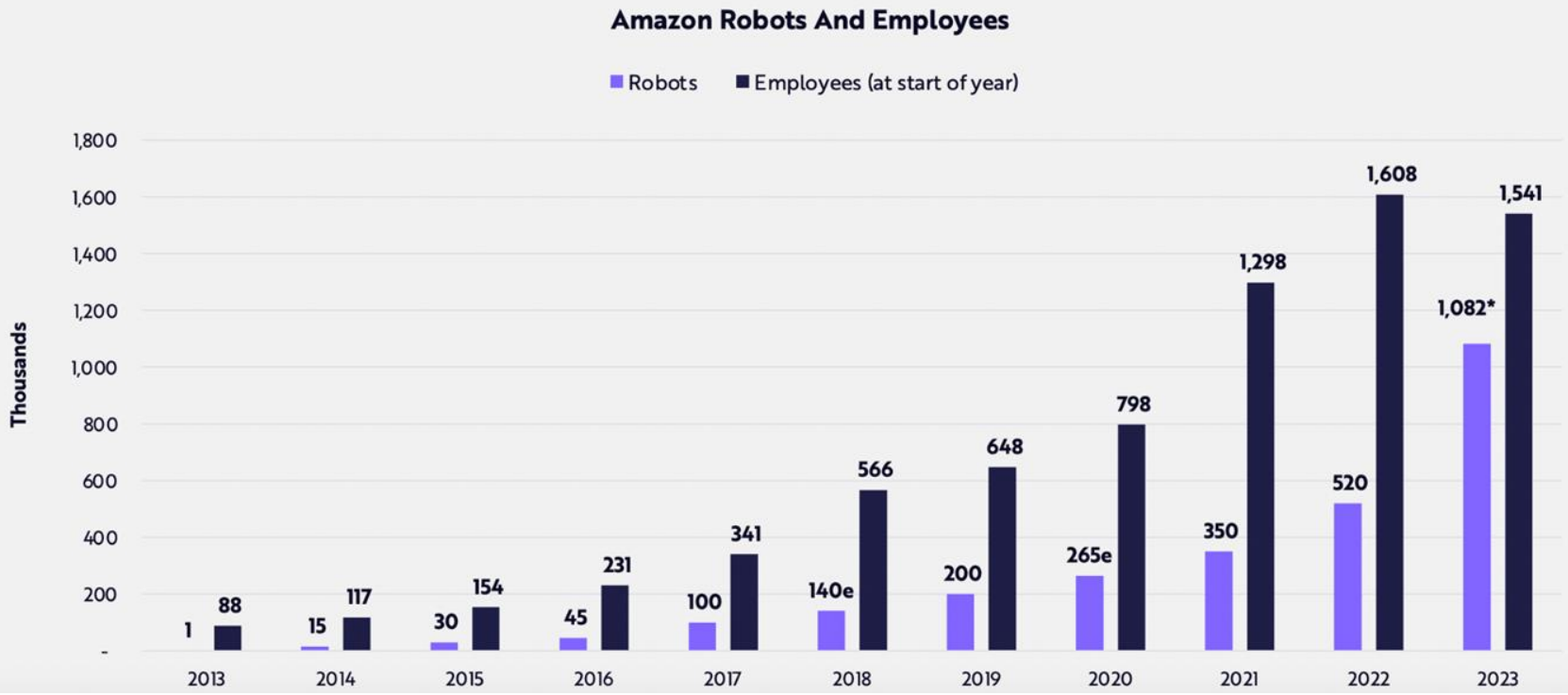
18 June 2024, Malaga


WHO DOES THE WORK
Full-time/Part-time Employees
Crowdsourcing
GIG Workers
HOW THE WORK IS DONE
AI
Robotics
Automation
FUTURE OF WORK
WHEN & WHERE WORK IS DONE
Collocated Workspace
Remote Workers
Fluid Work Schedules


1784
INDUSTRY 1.0
MECHANIZATION
STEAM POWER
1870
INDUSTRY 2.0
MASS PRODUCTION
ASSEMBLY LINE
1969
INDUSTRY 3.0
AUTOMATION
ELECTRONICS
TODAY
INDUSTRY 4.0
ERP
CYBER PHYSICAL SYSTEMS
NETWORKS
AI

Many Companies Are Likely To Deploy More Robots Than Humans

Robots are freeing humans from tedious physical tasks.




🤖 Inside Amazon’s Robo-Revolution: 750,000+ Robots Redefining the Workforce! 🚀🌐

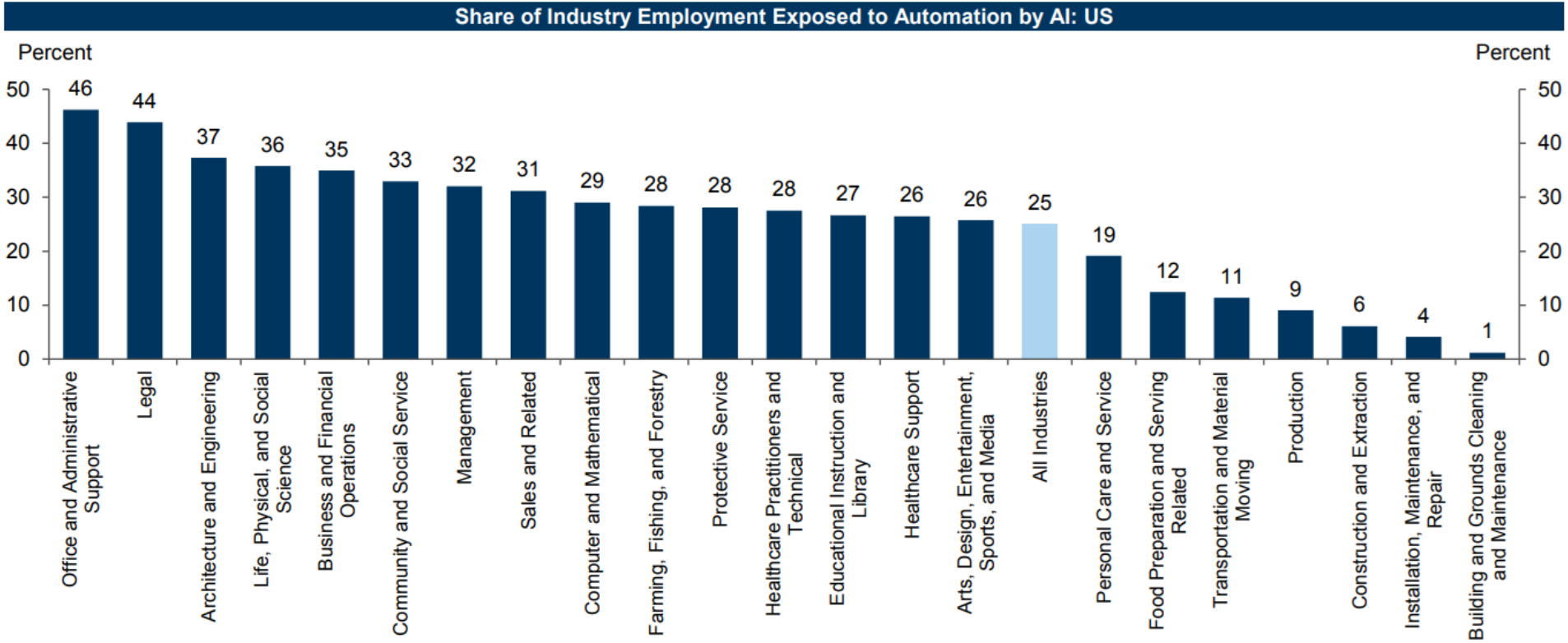
European key trends (jobs)

51 mil.

jobs in Europe are at risk due to **automation**

59 mil.

jobs in Europe are at risk due to the digital transformations accelerated by the **COVID-19 pandemic**


Share of Industry Employment Exposed to Automation by AI: US
Percent
Percent
50
40
30
20
10
0
46
44
37
36
35
33
32
31
29
28
28
28
27
26
26
25
19
12
11
9
6
4
1
Office and Administrative Support
Legal
Architecture and Engineering
Life, Physical, and Social Science
Business and Financial Operations
Community and Social Service
Management
Sales and Related
Computer and Mathematical
Farming, Fishing, and Forestry
Protective Service
Healthcare Practitioners and Technical
Educational Instruction and Library
Healthcare Support
Arts, Design, Entertainment, Sports, and Media
All Industries
Personal Care and Service
Food Preparation and Serving Related
Transportation and Material Moving
Production
Construction and Extraction
Installation, Maintenance, and Repair
Building and Grounds Cleaning and Maintenance

United States key trends (jobs)

63%

of US workers are in jobs where less than half of their tasks could be affected by **generative AI**

7%

of US workers are in jobs where at least half of their tasks could be affected by **generative AI**

AI Engineers

Managers

In the age of AI, job security will largely depend on the ability to adapt, learn, and work with new technologies. Some careers are likely to have more job security than others, particularly those that require creativity, human interaction, and complex problem-solving skills. Here are a few careers that may have the most job security in the AI age:

1. Healthcare Professionals: Doctors, nurses, therapists, and other healthcare professionals will continue to be in high demand as they rely on empathy, human touch, and decision-making skills that are difficult for AI to replicate.
2. Data Scientists and Analysts: As AI systems generate and rely on massive amounts of data, experts who can analyze, interpret, and apply this data will be crucial.
3. AI and Machine Learning Engineers: Professionals who design, develop, and maintain AI systems will be in high demand, as their expertise is essential for the growth and advancement of AI technologies.
4. Cybersecurity Professionals: With the increasing reliance on technology and the internet, the need for cybersecurity experts to protect sensitive information and systems from cyber threats will continue to grow.
5. Educators and Trainers: Teachers and trainers will still be needed to facilitate learning, particularly in areas such as soft skills, emotional intelligence, and interpersonal communication, which are challenging for AI to teach.
6. Creatives: Artists, writers, designers, and other creative professionals are likely to remain relevant as their work relies on unique human perspectives and creativity that AI has not yet been able to replicate.
7. Human Resource Professionals: HR professionals play a crucial role in managing employee relations, talent acquisition, and organizational development, which require a deep understanding of human emotions and behavior.
8. Managers and Leaders: Effective leadership involves strategic decision-making, empathy, and interpersonal skills that are difficult for AI to replicate, making managerial roles more secure.
9. Social Workers and Counselors: Professionals who provide emotional support, guidance, and therapy will continue to be needed, as their work relies on empathetic human connections that AI cannot easily replicate.
10. Skilled Trades: Careers in skilled trades like electricians, plumbers, and carpenters are less susceptible to automation, as they often involve complex, hands-on tasks that require on-the-spot problem-solving.

Data Scientists

HR Professionals

Top 10 fastest growing jobs

WORLD ECONOMIC FORUM

1. AI and Machine Learning Specialists
2. Sustainability Specialists
3. Business Intelligence Analysts
4. Information Security Analysts
5. Fintech Engineers
6. Data Analysts and Scientists
7. Robotics Engineers
8. Big Data Specialists
9. Agricultural Equipment Operators
10. Digital Transformation Specialists

Source
World Economic Forum, Future of Jobs Report 2023.

Note
The jobs which survey respondents expect to grow most quickly from 2023 to 2027 as a fraction of present employment figures

European key trends (skills)

21 mil.

European workers may have to leave declining occupations by 2030 (**reskilling**)

90 mil.

European workers may need to develop new skills within their current roles (**upskilling**)

Global key trends (skills)

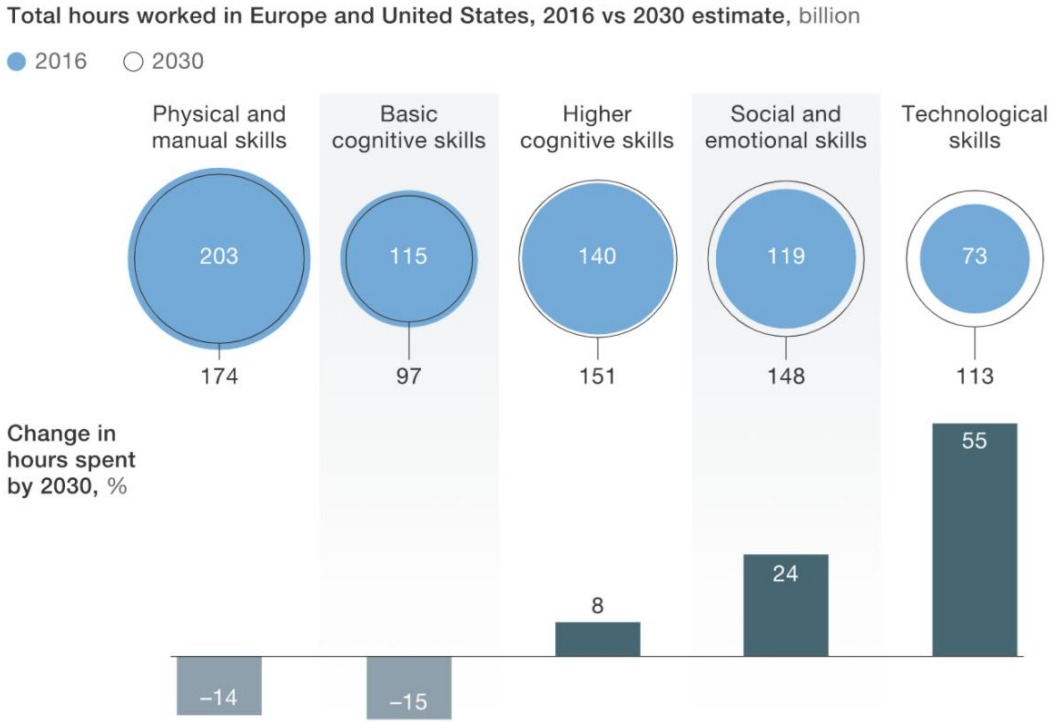
1/3

One-third of the 2030 workforce in the **United States** may need to learn new skills

1/2

Half of the 2030 workforce in **Japan** may need to learn new skills

Automation and artificial intelligence will accelerate the shift in skills that the workforce needs.



Source: Automation and the future of the workforce, McKinsey & Co.

Future-proof skills

People skills

4 Cs (e.g. Creativity, collaboration, communication, critical thinking)

Digital skills

Basic (e.g. Microsoft Office), advanced (e.g. Data Science)

Behavioural skills

Flexibility, adaptability, resilience, grit, and dealing with uncertainty

Top 10 skills on the rise

WORLD ECONOMIC FORUM

1. Creative thinking
2. Analytical thinking
3. Technological literacy
4. Curiosity and lifelong learning
5. Resilience, flexibility and agility
6. Systems thinking
7. AI and big data
8. Motivation and self-awareness
9. Talent management
10. Service orientation and customer service

Type of skill

Cognitive skills | Self-efficacy | Management skills | Technology skills | Working with others | Engagement skills

Source
World Economic Forum, Future of Jobs Report 2023.

Note
The skills judged to be increasing in importance most rapidly between 2023 and 2027

There will not be a shortage of jobs in the future, but rather a shortage of skilled workers to fill newly created roles.


Invest in People

The question is not whether we will have jobs in the future, but whether these will be the jobs we want.


Create Better Jobs

AI won't replace humans in the workplace, but humans working with AI tools will replace humans who don’t.


Work with AI

Resources

Big Ideas 2024, ARK Invest

Artificial Intelligence Impact on Economic Growth, Goldman Sachs

The future of work in Europe, McKinsey & Company

The economic potential of generative AI, McKinsey & Company

The Labor Market Impact Potential of Large Language Models, OpenAI

The Future of Jobs Report, World Economic Forum