

Title: Digitization, AI, and the Future of Work: Imperatives for Europe

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Purpose:

To explore the opportunities and challenges that increasing digitization and advances in AI bring for Europe, and provide recommendations on how Europe can capture the benefits of these technologies while preparing for their impact on work.

Introduction:

- Digitization is transforming business models and globalization, but adoption is uneven across companies, sectors, and countries. Leaders are capturing most of the benefits.
- Recent progress in AI and automation brings further opportunities to boost productivity and economic growth. But it also poses challenges for work transitions, skills, and wages.
- Europe risks falling behind US and China in AI, but can still capitalize on digital opportunities.

Methods:

- Analysis of digital adoption across companies, sectors, and countries based on measures of digitized assets, operations, and workforces.
- Assessment of technical potential for work automation using AI and robotics based on analysis of over 2,000 work activities.
- Scenario modeling of automation adoption rates and economic impacts based on technical feasibility, costs, labor dynamics, and social factors.

Main Findings:

- Europe has only captured 12% of its digital potential, translating to €2.5 trillion in unrealized GDP gains, lagging behind the US (18% of potential captured).
- AI and automation can enable productivity growth to counter slowing labor force growth. Applications across sectors can optimize operations.
- About half of current work activities could be automated using demonstrated technologies, affecting most occupations to varying degrees.
- Actual adoption will be slower than technical potential, driven by costs, growth, and social factors. But major transitions will be unavoidable.
- Higher wage occupations will see most job growth, increasing skill

requirements. Income polarization could worsen without sufficient economic growth.

- Digital platforms can support more diverse, independent work, but with some drawbacks around income variability and benefits.

Conclusion and Recommendations:

- Complete the EU Digital Single Market to enable scaling of digital firms across borders.
- Invest to become a leading digital ecosystem, including infrastructure, skills, and emerging tech.
- Spur entrepreneurship, demand, and job creation to offset automation's employment impacts.
- Improve education and retraining to help workers transition, especially in STEM and tech skills.
- Rethink worker supports like benefits and safety nets for the changing nature of work.

Limitations:

Analysis based on currently demonstrated automation capabilities, not theoretical ones. Scenarios depend on hard-to-predict economic, labor market, and social factors.

Reference:

McKinsey Global Institute. (2017). Digitization, AI, and the future of work: Imperatives for Europe.

Introduction

- Digitization is transforming business and globalization but adoption is uneven, limiting benefits.
- Recent AI advances bring opportunities but also challenges for work transitions, skills, and wages.
- Europe risks falling behind US and China in capturing digital gains.

The Digital Opportunity

- Leaders in digitization see faster growth and higher productivity versus laggards.
- Europe has only captured 12% of its digital potential, missing out on €2.5 trillion in GDP gains.
- A completed EU Digital Single Market could double digital trade flows.

The AI Opportunity

- AI and automation can provide a productivity boost to counter slowing labor force growth.
- Applications across sectors optimize operations beyond just labor substitution.
- Europe lags in AI investment and ecosystems compared to US and China.

Impact on Work

- About half of current work activities are technically automatable, affecting most occupations.
- Actual adoption will be slower, shaped by costs, growth, and social factors.
- Major worker transitions across occupations and skill needs will be unavoidable.

Imperatives for Europe

- Complete the Digital Single Market to enable digital firm scale-up.
- Invest to become a top digital ecosystem and destination.
- Spur entrepreneurship, demand, and job creation.
- Improve skills development and worker retraining.
- Rethink worker supports like benefits for the changing nature of work.