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The Future of Work in a Jobless Society: Globalization, Smart Digitalization, and Cognitive Automation

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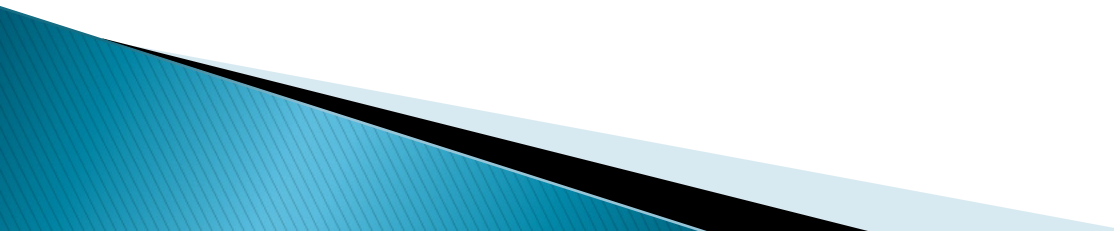
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- ▶ The future of work is undoubtedly one of the toughest challenges faced by many researchers and managers all over the world.
- ▶ The new human-machine frontier will determine a different outlook work in a jobless society, where many roles become automated, while human's role in these processes is minimized.



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- ▶ In our opinion, globalization and impact of artificial intelligence on the future of work will be significant.
 - ▶ In this paper we try to analyse and clarify the issues in question in terms of smart digitalization, cognitive automation, human-machine frontier and changing employment types.
 - ▶ In order to fulfil our goal, we apply the methods of comparison, analysis, deduction and our estimates for identifying the trends that are shaping the future of jobs and the evolution of jobs caused by technological change.
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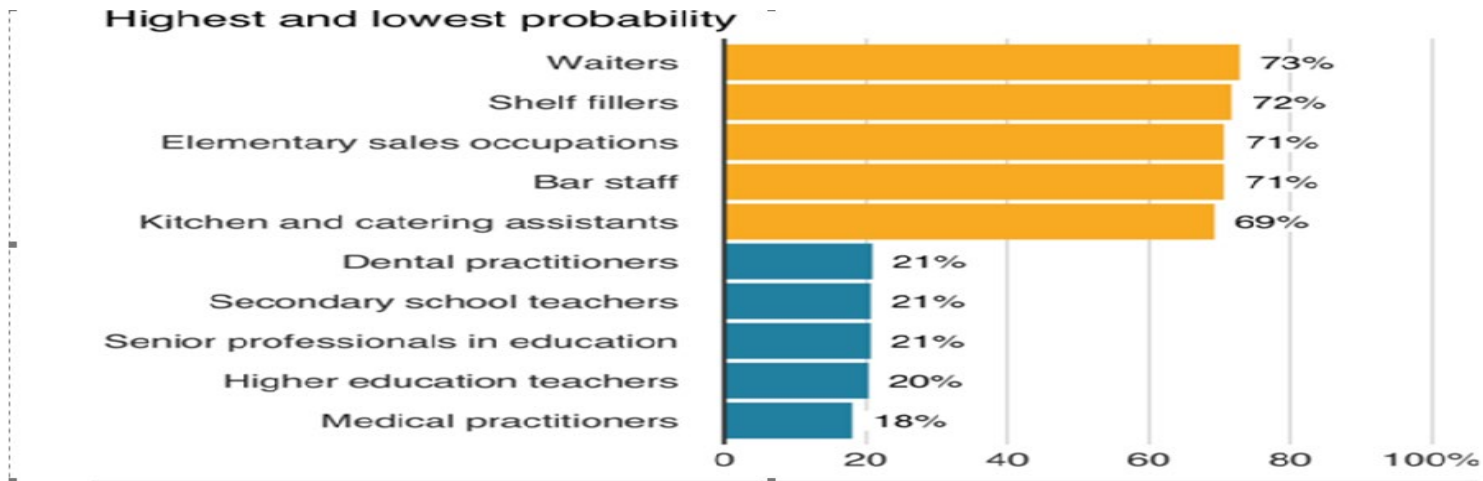
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- ▶ The current trend of labour market is changing as a result of **three simultaneous important shifts** [1]:
 - ▶ A demographic shift, including an aging population;
 - ▶ The economic shift of digital globalization, that creates digital platforms and changes the economics of doing business across borders;
 - ▶ A technological shift, driven by the Internet, including artificial intelligence, big data and cloud computing.

[1]: Peters, M.A. (2020). Beyond Technological Unemployment: The Future of Work, Educational Philosophy and Theory,

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- ▶ Current technologies will affect jobs all over the world, but some industries could be more affected than others.



- ▶ **Fig.** Jobs at risk from automation in England (2017)

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Table 1. New jobs and new skills required on the job market in 2019 (%)

Data analysts	25
General and operational managers	21
Computer specialists	20
Digital marketing specialists	18
Big data specialists	13
Other	3

Sources: Market Research; our survey among 2,500 individuals conducted July-August 2020.

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Table 2. Work tasks performed by employees in 2019 (%)

Decision-making	51
Coordinating, developing, advising	21
Communicating and interacting	17
Administering	9
Others	2

Sources: Market Research; our survey among 2,500 individuals conducted July-August 2020

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Table 3. The new human-machine collaboration estimated up to 2022 (%)

Information and data processing	45
Performing complex and technical activities	30
Performing physical and manual work	20
Others	5

Sources: Market Research; our survey among 2,500 individuals conducted July-August 2020



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The future of jobs cannot be predicted for sure, but the implementation of the digital technology continues to accelerate and the future of work is predominantly online, using digital platforms in some specific industries, such as: **insurance, finance, accounting, banking, etc.**

The new **digital accelerated technology will reshape jobs** all over the world with significant impact over businesses and recruitment.



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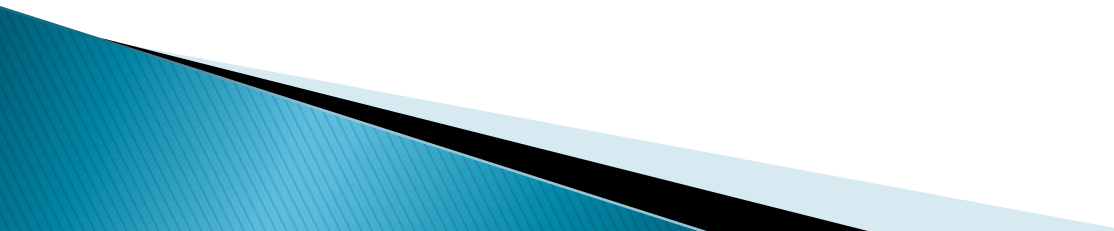
In the last decades, **the future of work in the digital activities has become uncertain** due to disruptive technologies that will allegedly create jobless growth and worldwide unemployment.

The future of work is changing as the result of globalization, smart digitalization and cognitive automation.

Thus, there are many alarming predictions about the changing nature of work and skills in the digital age and **strong challenges will be faced** by many researchers and managers all over the world.

CONCLUSIONS

Conclusions and implications

- Globalization and digitalization will create new jobs and additional opportunities will appear on the labour market.
 - The impact of digitalisation on the workforce is changing mentality and culture all over the world, and many jobs are likely to disappear in the near future, but some others types of jobs are being created.
 - Innovation continues to accelerate and new workers benefit from the digital transformation for **new jobs**, like **computer specialist, data analyst, big data specialist, robotic engineer, blockchain specialist, Internet of Things architect, etc.**
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CONCLUSIONS

The decision to invest in the workforce reskilling is crucial.



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▶ THANK YOU !

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