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Collective Intelligence - can human and machine intelligence work in unison?

Artificial Intelligence (AI), automation and robotization have the power to exclude but, more importantly, they have the power to enhance our human experience. Understanding the opportunities and threats posed by new technologies from a human-centric perspective will be key to ensuring their acceptance and delivering the maximum benefit to individuals, organizations and society at large.

Technology is rapidly changing the world of work as we know it, from digital assistants to robot colleagues. However, technologies such as AI and automation are not about replacing people. Instead, they can create new opportunities by elevating certain skills and optimizing specific tasks and activities. By automating routine tasks and using AI to gain faster and better data insights, more time becomes available to carry out tasks that humans are great at, such as complex problem solving, critical thinking and creativity – essential skills for the future workspace¹.

To prosper in this new era, organizations will need humans to learn how to work in tandem with AI and robots. By complementing and leveraging each other's strengths, a collective intelligence will emerge that is greater than the sum of its parts. Thomas W. Malone, professor at MIT, refers to this collective intelligence as "*Superminds - the surprising power of people and computers thinking together*". Superminds are a powerful combination of many individual "minds" that can accomplish things that individual humans or machines cannot do alone.

As AI systems become ever more sophisticated, new jobs will also be created that do not yet exist today. Large companies already using or testing AI and machine-learning systems are anticipating the emergence of

new, uniquely human jobs. MIT research² predicts humans in new AI-driven roles will complement the tasks performed by cognitive technology, ensuring that the work of machines is both effective and responsible – that it is fair, transparent, and auditable.

The preparations start now

At this critical time, it is the responsibility of all employers to prepare their employees to adapt and thrive in the workplace. The challenge now is for organizations to develop the appropriate training and reskilling programs that will help their existing workforces adjust and excel in the new working environment.

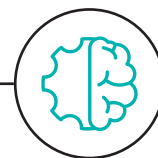
Preparedness will also involve a willingness to consider new organizational structures, flexible working, accessing an increasingly global talent pool and addressing the challenges of a multi-generational workforce. The priority is for organizations to embrace a human-centric approach that will help to accelerate digital transformation and ensure a more meaningful experience for employees.

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¹ *Superminds - The Surprising Power of People and Computers Thinking Together*, Thomas W. Malone (2018)

² *The Jobs That Artificial Intelligence Will Create*, H. James Wilson, Paul R. Daugherty, and Nicola Morini-Bianzino (2017) http://ilp.mit.edu/media/news_articles/smr/2017/58416.pdf



4 steps to embrace a human-centric culture

1 Establish a culture of collaboration

Learning from each other in an environment where it is safe to make mistakes will be essential to ensure new techniques and working practices can be tested.

2 Drive intelligent productivity

Empower employees to focus their time, energy and brain power on the issues that really matter to them and to the organization.

3 Blend artificial intelligence with human intelligence

This is a magic combination. Determine which processes and tasks can be automated and carried out by AI. Start retraining and reskilling employees to deploy their uniquely human skills to translate AI findings into actionable insights.

4 Focus on diversity

Set up diverse teams with a balanced mix of male and female employees and with a mix of technical, analytical and soft skills. This will drive creativity and innovation and avoid bias.

77%

CIOs who are concerned about the impact of automation and digitalization on their organizations.

Atos survey of 100 CIOs (2018)

