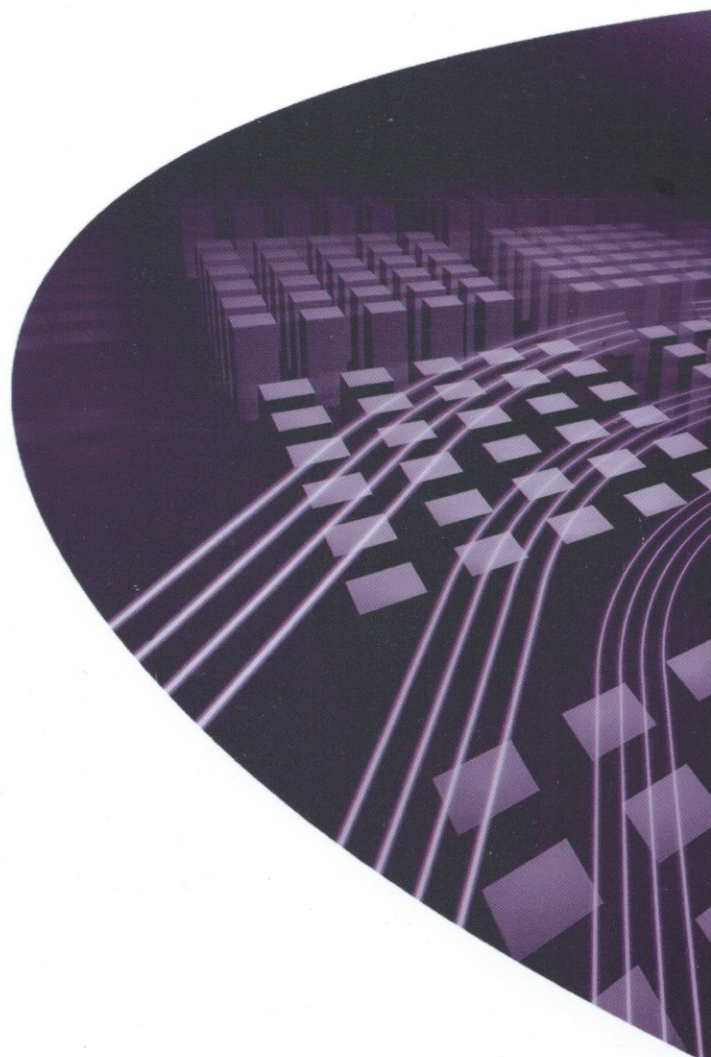


Development and Learning in Organizations

An International Journal



Access this journal online
www.emeraldinsight.com/dlo.htm



The role of curiosity in workplace automation

Alison Horstmeyer

Treating humans as task performers with corresponding costs to be minimized might be conventional wisdom, but firms across industries—such as Southwest Airlines, Toyota, and Costco—realize above-average service, profit, and growth by crafting jobs that make the most of their employees' inherent nature to be social animals and creative problem-solvers. Empowering employees to dismantle status quo frameworks and to unconventionally consider and approach the problem they are trying to understand (and solve) enables them to tap into their own ingenuity, make more sophisticated decisions, and consequentially deliver higher performance. This work is uniquely human and cannot be taken over by robots. This article reviews automation and the future of work, identifies the key skills employees need in an automated workplace, and offers advice to talent professionals wanting to support their organizations in optimally engaging and utilizing employees.

Alison Horstmeyer is based at Intrinsic Curiosity, Santa Monica, USA.

Automation and the Future of Work

Automation refers to developing tools and technologies that yield greater output with less human effort. Examples of automation are plentiful, from the water wheel of the 11th century to the vast array of information technologies available today. Common across these innovations is the focus on converting work performed by humans into work performed by machines, thus improving consistency, quality, and productivity while decreasing unit costs. Automation has been credited with freeing us from mundane and menial labor, making us available for higher-order and enriched tasks, and raising our standard of living. However, the recent surge in artificial intelligence, robotics, and digital transformation has intensified workers' concerns about the nature and availability of work in the future.

The concern is not unwarranted: Ongoing technological advancement does yield dramatic shifts in how work is organized and how we complete our tasks. McKinsey researchers suggest that the demand for social and emotional skills will dramatically increase, with soft skill-intensive occupations accounting for two-thirds of all jobs by 2030, compared to half of all jobs in 2000 ([Bughin *et al.*, 2018](#)).

Skill gaps in organizations' workforce have already emerged across the European Union, the United States, and OECD member countries ([McKinsey Global Institute, 2015](#)). Moreover, while skill gaps generally are noted across organizations worldwide, it is important to acknowledge that the specific soft skills needed in a given workplace will vary based on the roles, team dynamics, culture, and resources unique to that setting. Fortunately, these gaps can be closed using curiosity, defined as recognizing, pursuing, and exploring unfamiliar, unclear, or complex events ([Kashdan *et al.*, 2018](#)).

Using Curiosity to Develop Skills for an Automated Workplace

Three particular skills—creative problem solving, interpersonal skills, and adaptability—will be in high demand in the coming years. The following sections describe how these can be cultivated through curiosity.

Creative problem solving

In business environments characterized by complexity, uncertainty, and an increasing pace of change, creative problem-solving skills are essential for proactively identifying issues and iteratively implementing needed solutions. Creativity and creative problem solving are needed across industries and jobs, and the demand for these skills is anticipated to grow at double-digit rates through 2030—by 19 per cent in the United States and 14 per cent in Europe (Bughin *et al.*, 2018). Creative problem solving is supported by a curious mindset because openness to the unfamiliar, a drive for exploration and experimentation, and the pursuit of new information are central to curiosity (Hardy *et al.*, 2017).

Interpersonal skills and empathy

The demand for nonroutine interpersonal and analytical tasks is anticipated to increase by 24 per cent by 2030 (Bughin *et al.*, 2018). Machines are a long way from mastering such tasks, suggesting that the jobs that will remain in an automated workplace will be soft-skills intensive. Companies like IDEO, IBM, and Cisco indoctrinate the concept of soft skills-intensive jobs using the metaphor of the T-shaped professional, which involves having the depth of discipline-specific technical skill and breadth of empathetic curiosity needed to imagine a problem from another perspective while promoting enthusiasm and interest about other disciplines (Collins and Evans, 2002).

Adaptability and continuous learning

In today's volatile, complex business environments, companies need to be responsive to the emerging opportunities surrounding them, evidenced by findings from McKinsey's survey of more than 3,000 business leaders in seven countries, which underscored the organizations' emphasis on continuous learning and agility (Bughin *et al.*, 2018). For example, Google's ongoing experiments to continuously improve the customer experience demonstrate how the ability to adapt and learn translates into substantial capital advantages. Underlying this ability is exploratory behavior, positive reframing, and resilience made possible through the inquisitiveness, openness to experience, multidimensional and inferential thinking, and stress tolerance endemic to curiosity (Kashdan *et al.*, 2018). Adaptability also is related to a growth mindset, which asserts that human capacities can be developed over time and, in turn, is associated with overcoming challenges, achieving goals, and enhancing productivity (Dweck and Yeager, 2019).

Advice for Talent Professionals

Preparing the workforce of the future will take concerted effort from stakeholders both within and outside the organization. Following are three specific recommendations for organization leaders and training professionals to cultivate these skills in their organizations.

Recommendation 1: Equip and empower employees

Capitalizing on curiosity for organizational gains requires employees who can take independent action and think differently (e.g., nonconventional or nonconformist thinking). To do so, the work environment and culture need to value a curious mindset. In parallel, employees need to be equipped to autonomously uncover and deliver on marketplace

demands. For example, at CarMax, leaders refrain from dictating how problems should be solved. Instead, they tell employees what the problem and key performance indicators are and then allow employees the freedom to iteratively arrive at the solution. Creating this management paradigm requires decentralized decision-making by allowing teams to not only clearly define goals and responsibilities but to also determine the “how”.

Recommendation 2: Facilitate collaborative networks

It is generally understood that the employees who are effective in automated workplaces know how to collaborate with machines. What may be less understood is the need to create sophisticated intra-organizational and cross-organizational employee collaborations. Achieving such collaboration requires the elimination of silos and, instead, the creation of collaboration-supportive employee cultures and mindsets, leadership narratives, and tools and structures. A manifestation of this type of collaboration is a flash team, wherein experts work together to solve specific issues, regardless of their location or organizational affiliation, using web-based software (Retelny *et al.*, 2014). Flash teams reportedly produce faster, cheaper solutions than conventional approaches, which can be particularly helpful when state-of-the-art solutions are needed.

Recommendation 3: Facilitate experimentation and learning

Ongoing automation and digital disruption require companies to maintain an unprecedented degree of experimentation to determine what delivers superior competitive advantage. Experimentation is central to high tech giants like Amazon in their quest to deliver the ultimate platform experience. Sustaining ongoing experimentation requires cultural approaches that support ample communication (e.g., idea sharing, feedback, storytelling), risk and failure tolerance, and project postmortems to support ongoing learning.

Conclusion

Successful employees in an automated workplace need strong soft skills such as creative problem solving, interpersonal skills, adaptability, and continuous learning. Organizations can help employees keep pace through practices such as decentralized decision-making, flash teams, risk- and failure-tolerant environments, and encouragement of curious mindsets. Additional research would be helpful to evaluate curiosity building interventions.

Keywords:
Artificial intelligence,
Automation,
Interpersonal skills,
Curiosity,
Continuous learning,
Creative problem-solving

References

- Bughin, J., Hazan, E., Lund, S., Dahlstrom, P., Wiesinger, A. and Subramaniam, A. (2018), “Skill shift automation and the future of the workforce: discussion paper”, McKinsey Global Institute.
- Collins, H.M. and Evans, R.J. (2002), “The third wave of science studies: studies of expertise and experience”, *Social Studies of Sciences*, Vol. 32 No. 2, pp. 235-296.
- Dweck, C. and Yeager, D.S. (2019), “Mindsets: a view from two eras”, *Perspectives on Psychological Science*, Vol. 14 No. 3, pp. 481-496, doi:[10.1177/1745691618804166](https://doi.org/10.1177/1745691618804166).
- Hardy, J., Ness, A. and Mecca, J. (2017), “Outside the box: epistemic curiosity as a predictor of creative problem solving and creative performance”, *Personality and Individual Differences*, Vol. 104, pp. 230-237.
- Kashdan, T.B., Disabato, D.J., Goodman, F.R. and Naughton, C. (2018), “The five dimensions of curiosity”, *Harvard Business Review*, available at: <https://hbr.org/2018/09/curiosity>
- McKinsey Global Institute (2015), “A labor market that works: connecting talent with opportunity in the digital age”.

Retelny, D., Robaszkiewicz, S., To, A., Lasecki, W., Patel, J., Rahmati, N., Doshi, T., Valentine, M. and Bernstein, M.S. (2014), "Expert crowdsourcing with flash teams", available at: <https://hci.stanford.edu/publications/2014/flashteam/flashteams-uist2014.pdf>

About the author

Alison Horstmeyer, MS, MBA, PhDc, is a former Fortune 500 corporate executive turned executive professional development consultant, certified executive coach, and humanistic researcher. Her doctoral research focuses on curiosity and associated biopsychosocial constructs. Alison Horstmeyer can be contacted at: alison@intrinsiccuriosity.com

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com