

CHAPTER 2

THE SKILLS THAT AI CAN'T REPLACE

ABSTRACT

The increased adoption of artificial intelligence in professional work environments has also led to a need for distinctly human competencies. This chapter examines human capabilities that AI cannot replicate and will remain indispensable.

Critical thinking emerges as a significant differentiator in light of AI's limitations. While AI demonstrates proficiency in data analysis and automation, it lacks the capacity to see across assumptions, evaluate information objectively, and construct robust arguments independently. Individuals must develop the ability to assess AI outputs critically and apply analytical reasoning to complex situations.

Human creativity surpasses contemporary AI's current capabilities. Although AI generates content and solves problems creatively, it encounters difficulties with genuine innovation and human emotional connection. Personal experiences, imagination, and emotional intelligence come together to produce work that resonates profoundly with others.

Humans excel in emotional and interpersonal competencies. AI cannot match human abilities in emotional comprehension, relationship building, and social behaviour. Effective workplace relationships depend on empathy, active listening, and receptive communication—skills preferred when collaborating with both human colleagues and AI.

By Yang Li

© CSMFL Publications & its authors

DOI: <https://dx.doi.org/10.46679/9788196780586ch02>

THIS IS A LIMITED PREVIEW OF THE CHAPTER.

To read the full-text chapter, get access by purchasing this chapter or consider buying the complete book. If your library has subscription to EBSCOhost, this chapter including other chapters of the book can be accessed through your library.

This chapter is a part of the book, *'Human Skills for the Automated Future: Being Human as the Key Eligibility for Future Workplaces'* by Yang Li.

ISBN: 978-81-967805-8-6 (ebk); ISBN: 978-93-49926-23-3 (pbk)

The ebook (ebk) and paperback/softcover print (pbk) of this book is available at:
<https://dx.doi.org/10.46679/9788196780586>

The book and its metadata are available worldwide via EBSCOhost Academic Collection, EBSCO E- books, Google Books, Google Play Books, World Cat Discovery Service/OCLC, Crossref Metadata Search, CSMFL Bookstore, and other leading book resellers and academic content vendors.

detection and identification of human emotions—has been a subject of research (Picard, 2008). In essence, it is open lines inviting further exploration and discourses on the consequences that AI would establish in the emotional aspects of human communication.

REFERENCES

- Cherry, K. (2023, December 31). *5 Key Components of Emotional Intelligence*. Verywell Mind.
<https://www.verywellmind.com/components-of-emotional-intelligence-2795438>
- Cropley, D. (2023). Is artificial intelligence more creative than humans? *Learning Letters*, 2, 13–13.
<https://doi.org/10.59453/ll.v2.13>
- Gaggioli, A. (2017). The Rise of the Creative Computers. *Cyberpsychology, Behavior, and Social Networking*, 20(9), 580–581. <https://doi.org/10.1089/cyber.2017.29084.csi>
- German, K., Limm, M., Wölfel, M., & Helmerdig, S. (2019). Towards Artificial Intelligence Serving as an Inspiring Co-Creation Partner. *EAI Endorsed Transactions on Creative Technologies*, 6(19), 162609.
<https://doi.org/10.4108/eai.26-4-2019.162609>
- Irina Dora Magurean, Anca Monica Brata, Abdulrahman Ismaiel, Barsan, M., Czako, Z., Pop, C., Muresan, L., Alexandra Ioana Jurje, Dinu Iuliu Dumitrascu, Vlad Dumitru Brata, Daniel Corneliu Leucuta, Mihaela Fadygas Stanculete, & Stefan Lucian Popa. (2024). Artificial Intelligence as a Substitute for Human Creativity. *Journal of Research in Philosophy and History (Online)*, 7(1), p7–p7.
<https://doi.org/10.22158/jrph.v7n1p7>
- Komolafe Blessing Funmi, & Qian, X. (2020). Critical Thinking an Antidote to Artificial Intelligence Threat: An Innovation in Teacher Education Practices.
<https://doi.org/10.17501/24246700.2020.6205>

- Krishna Rao, M. R. K. (2005). Infusing critical thinking skills into content of AI course. *Proceedings of the 10th Annual SIGCSE Conference on Innovation and Technology in Computer Science Education*.
<https://doi.org/10.1145/1067445.1067494>
- MIT Horizon. (2024). *Critical Thinking in the Age of AI*.
Horizon.mit.edu; MIT Horizon.
<https://horizon.mit.edu/insights/critical-thinking-in-the-age-of-ai>
- Moore, C. (2019, January 9). *Emotional intelligence skills and how to develop them*. PositivePsychology.com.
<https://positivepsychology.com/emotional-intelligence-skills/>
- Moustaghfir, S., & Brigui, H. (2024). Navigating Critical Thinking in the Digital Era: An Informative Exploration. *International Journal of Linguistics, Literature and Translation*, 7(1), 137–143. <https://doi.org/10.32996/ijllt.2024.7.1.11x>
- Oritsegbemi, O. (2023). Human Intelligence versus AI: Implications for Emotional Aspects of Human Communication. *Journal of Advanced Research in Social Sciences*, 6(2), 76–85.
<https://doi.org/10.33422/jarss.v6i2.1005>
- Orme, G. (2019). *The Human Edge: How Curiosity And Creativity Are Your Superpowers In The Digital Economy*. In *Google Books*. Pearson UK.
https://books.google.co.in/books/about/The_Human_Edge.html?id=WxTQEAAAQBAJ&redir_esc=y
- Picard, R. W. (2008). Toward Machines With Emotional Intelligence. *The Science of Emotional Intelligence Knowns and Unknowns*, 396–416.
<https://doi.org/10.1093/acprof:oso/9780195181890.003.0016>

Pragati Pandey. (2023). Emotional Intelligence skills in the Age of AI – A Review. *International Journal for Multidisciplinary Research*, 5(5).

<https://doi.org/10.36948/ijfmr.2023.v05i05.7196>

Risvold, W., Stratton, M., & Geddy, M. (2024). *How to Evaluate Critical Thinking in the Age of AI* | AACSB. www.aacsb.edu.

<https://www.aacsb.edu/insights/articles/2024/02/how-to-evaluate-critical-thinking-in-the-age-of-ai>

Spector, J. M., & Ma, S. (2019). Inquiry and critical thinking skills for the next generation: from artificial intelligence back to human intelligence. *Smart Learning Environments*,

6(1). <https://doi.org/10.1186/s40561-019-0088-z>
