

## Summary Post

Artificial intelligence (AI), dating back to 1956, now appears ubiquitous because of generative AI (GAI), notably ChatGPT (Russell & Norvig, 2021). GAI started in 2014, rooted in generative adversarial networks (GAN), diffusion models, and Google's Transformer neural network (Omdia, 2023). Propelled by Industry 4.0 (4IR) advancements like cloud, natural language processing (NLP) interfaces provided the accessible human-machine collaboration for Industry 5.0 (5IR) (Peres et al., 2020; Noble et al., 2022; Omdia, 2023).

Despite ChatGPT's peak in May 2023, AI could annually contribute \$17.1-\$25.6 trillion globally, with \$6.1-\$7.9 trillion from generative AI-enabled worker productivity (Carr, 2023; Chui et al., 2023). Generative AI's relevance, however, varies by sector and job function.

In media and entertainment, generative AI could add \$60-\$110 billion, particularly within sales, marketing, and software engineering (Chui et al., 2023). The sector already integrates AI in predictive analytics, personalized recommendations, and engagement measurement. Video streaming anticipates increased AI adoption, especially in audience insights, content personalisation, and advertising, but predicts job losses will match job creation (Kanji, 2023).

In addition to 4IR's "automation", streaming requires 5IR's "augmentation"—combining subject matter expertise with AI (Peres et al., 2020; Noble et al., 2022). While Universal Basic Income (UBI) addresses loss of money, upskilling addresses loss of meaning (Susskind, 2023).

AI brings ethical and regulatory implications. Predictive AI, when trained on data biased by prior success, can bias against creativity (Mehrabi et al., 2022). Uncompensated creative-derived training data poses ethical and copyright issues (Isidore, 2023; Lnu, 2023). Despite guidance from the World Ethical Data Foundation (2023), there are no global standards, regulation varies by region and approach, and international agreements remain under evaluation (Hutson, 2023).

GAI has advanced AI's ubiquity and accessibility, but AI's economic potential still requires ethical use and creative safeguards. Balancing automation with augmentation enables both economic growth and societal well-being.

## References:

Carr, D.F. (2023) *ChatGPT Drops About 10% in Traffic as the Novelty Wears Off*. Available from: <https://www.similarweb.com/blog/insights/ai-news/chatgpt-traffic-drops/> [Accessed 29 July 2023].

Chui, M. et al. (2023) *The economic potential of generative AI The next productivity frontier*. Available from: <https://www.similarweb.com/blog/insights/ai-news/chatgpt-traffic-drops/> [Accessed 29 July 2023].

Hutson, M. (2023) Conflicting Visions for AI Regulation, *Nature* 620: 260–263. Available from: <https://www.nature.com/articles/d41586-023-02491-y.pdf> [Accessed 24 August 2023].

Isidore, C. (2023) *AI is a concern for writers. But actors could have even more to fear*. Available from: <https://edition.cnn.com/2023/07/18/business/ai-actors-strike/index.html> [Accessed 30 July 2023].

Kanji, K. (2023) *Attitudes to AI in the OTT Industry*. Available from: <https://www.linkedin.com/pulse/attitudes-ai-ott-industry-kauser-kanji/> [Accessed 13 August 2023].

Lnu, D. (2023) Artists enable AI art - shouldn't they be compensated?, *The Gradient* [Preprint]. Available from: <https://thegradient.pub/should-stability-ai-pay-artists/> [Accessed 13 August 2023].

Mehrabi, N. et al. (2022) A Survey on Bias and Fairness in Machine Learning. Available from: <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing> [Accessed 15 August 2023].

Noble, S.M. et al. (2022) The Fifth Industrial Revolution: How Harmonious Human–Machine Collaboration is Triggering a Retail and Service [R]evolution, *Journal of Retailing* 98(2): 199–208. DOI: <https://doi.org/10.1016/J.JRETAI.2022.04.003>.

Omdia (2023) *The Generative AI Revolution: Understanding, Innovating and Capitalizing*. Available from: [https://omdia.tradepub.com/free/w\\_omdi228/prgm.cgi](https://omdia.tradepub.com/free/w_omdi228/prgm.cgi) [Accessed 6 August 2023].

Peres, R.S. et al. (2020) Industrial Artificial Intelligence in Industry 4.0 -Systematic Review, Challenges and Outlook, *IEEE Access* [Preprint]. DOI: <https://doi.org/10.1109/ACCESS.2020.3042874>.

Russell, S. and Norvig, P. (2021) *Artificial Intelligence: A Modern Approach, Global Edition*. 4th ed. Pearson Education, Limited.

Susskind, D. (2023) Work and meaning in the age of AI. Available from: <https://www.brookings.edu/articles/work-and-meaning-in-the-age-of-ai/> [Accessed 18 August 2023].

World Ethical Data Foundation (2023) *Me-We-It: An Open Standard for Responsible AI*. Available from: <https://openletter.worldethicaldata.org/en/openletter/> [Accessed 13 August 2023].