

## Summary Post

by Mariam Ibrahim Ismail Hasan Almarzooqi - Saturday, 18 October 2025, 7:33 PM

This week's discussion delved into the ethical and cultural dimensions of deep learning technologies, particularly as they become more deeply embedded in creative and decision-making processes. A primary concern was the issue of accountability in AI-generated content. While deep learning systems can mimic human creativity producing realistic visuals and human-like dialogue they lack inherent ethical reasoning. This creates a grey area in determining who is responsible for content that may be misleading or harmful (Forner & Ozcan, 2024).

Cultural appropriation emerged as another critical issue. Since AI models are trained on vast datasets sourced from the internet, they may unintentionally distort or exploit cultural elements without proper context or consent. This raises questions about authenticity and respect, especially when cultural symbols are commercialized or misrepresented through AI (Diro et al., 2021). Furthermore, as users increasingly engage with AI-generated material, there is a risk that human creativity and originality may be devalued, leading to a shift in how society perceives artistic and intellectual efforts.

Despite these concerns, the potential for positive impact was acknowledged. Deep learning offers significant benefits, particularly in accessibility such as supporting individuals with disabilities demonstrating how these tools can extend human capabilities when applied thoughtfully (Kufel et al., 2023).

Peer contributions emphasized the importance of ethical design and regulatory frameworks. Proposals included implementing transparency mechanisms like explainability-by-design, maintaining detailed documentation, and ensuring culturally representative datasets. Psychological impacts were also discussed, especially the societal effects of over-reliance on machine-generated content.

In conclusion, while deep learning presents complex ethical challenges, participants agreed that through responsible design, inclusive data practices, and public digital literacy, AI technologies can be developed in ways that promote creativity, protect cultural identity, and uphold human values.

References:

### References:

Diro, A., Chilamkurti, N., Nguyen, V., & Heyne, W. (2021). A comprehensive study of anomaly detection schemes in IoT networks using machine learning algorithms. *Sensors*, 21(24), 8320. <https://doi.org/10.3390/s21248320>

Forner, D., & Ozcan, S. (2024). Examination of overlapping boundaries of innovation systems using a deep neural network and natural language processing. *IEEE Transactions on Engineering Management*, 71, 9481–9495. <https://doi.org/10.1109/TEM.2023.3310198>

Kufel, J., Kocot, S., Koźlik, M., Bartnikowska, W., Janik, M., Czogalik, Ł., Dudek, P., Magiera, M., Lis, A., Paszkiewicz, I., Nawrat, Z., Cebula, M., & Gruszczyńska, K. (2023). What is machine learning, artificial neural networks, and deep learning?—Examples of practical applications in medicine. *Diagnostics*, 13(15), 2582. <https://doi.org/10.3390/diagnostics13152582>