



Using AI to promote Education for
Sustainable Development (ESD)
and widen access to digital skills:

Annotated List of Resources

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The project is led by

London Metropolitan University (UK)



In partnership with

Coventry University (UK), University of Hertfordshire (UK), University of Staffordshire (UK), Manisa Celal Bayar University (Turkey), Aristotle University of Thessaloniki (Greece), Epoka University (Albania) and University of Elbasan “Aleksander Xhuvani” (Albania).



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As part of this Collaborative Enhancement Project funded by QAA, academic members of staff from this project partner institutions working in collaboration with students have created an annotated reading list of publications, pedagogic resources and case studies which aim to support academic members of staff and students who wish to develop their digital skills by using Artificial Intelligence in terms of Education for Sustainable Development modules and courses in Higher Education.

List of Resources (in random order)

- ✚ Hemming, S., de Zwart, F., Elings, A., Righini, I., & Petropoulou, A. (2019). Remote control of greenhouse vegetable production with artificial intelligence—greenhouse climate, irrigation, and crop production. *Sensors*, *19*(8), 1807.
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- ✚ The Letrus Writing Skills Program, leveraging Artificial Intelligence (AI) to enhance the writing skills of students; A case study. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000380194>
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- ✚ Hassan, J., Devi, A., & Ray, B. (2022). Virtual laboratories in tertiary education: Case study analysis by learning theories. *Education Sciences*, 12(8), 554.
- ✚ Ceccarini, C., Mirri, S., Salomoni, P., & Prandi, C. (2021). On exploiting data visualization and IoT for increasing sustainability and safety in a smart campus. *Mobile Networks and Applications*, 26(5), 2066-2075.
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- ✚ Li, W. (2020). GeoAI: Where machine learning and big data converge in GIScience. *Journal of Spatial Information Science*, (20), 71-77.
- ✚ Godbole, M. V. (2023). Revolutionizing Enterprise Resource Planning (ERP) Systems through Artificial Intelligence. *International Numeric Journal of Machine Learning and Robots*, 7(7), 1-15.
- ✚ Orn, D., Duan, L., Liang, Y., Siy, H., & Subramaniam, M. (2020, October). Agro-AI education: artificial intelligence for future farmers. In Proceedings of the 21st annual conference on information technology education (pp. 54-57).
- ✚ Weltman, H., Hussaina, F., & Marcusb, N. (2017). We Built It and They Came: An Adaptive eLearning Experience.
- ✚ Using AI to Revolutionize Healthcare Education: A Case Study of Coventry University's Virtual Patient Development with PCS Spark's Generative AI Model, available at: <https://cosupport.coventry.domains/vr/revolutionising-healthcare-education/>
- ✚ The Case Study of Using AI in a Problem-Based Learning Session- Hunger Hotspots, available at: <https://microsites.ncl.ac.uk/casestudies/2023/07/11/ai-pbl/>
- ✚ Chiang, T. (2021). Estimating the artificial intelligence learning efficiency for civil engineer education: A case study in Taiwan. *Sustainability*, 13(21), 11910.

- ✚ Camaréna, S. (2022). Artificial Intelligence (AI) for sustainable institutional food systems: implementation of AI tools for school nutrition program management in the United States of America. *Frontiers in Sustainable Food Systems*, 6, 743810.
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