AI and Environmental Impact: A Learning Leader's Resource Guide

As AI tools become more integrated into learning and development, it's important not just to ask what they can do—but at what **cost**. Within the AI Ethics Rubric for L&D, *Environmental Sustainability* is one of the ten core dimensions that encourages us to consider the energy, water, and resource impact of the tools we adopt. This guide offers curated resources to help learning leaders and teams explore the environmental footprint of AI—and take steps toward more responsible, sustainable choices in their AI-enabled practices.

Understand the Impact

These explainers and expert insights provide a strong foundation for understanding the environmental implications of AI:

- How is the Tech Industry Thinking about AI's Environmental Impact? – *NPR* (11-minute listen with transcript): https://www.npr.org/2025/03/30/nx-s1-5341467/how-is-the-tech-industry-thinking-about-ais-environmental-impact

- Why the True Water Footprint of AI So Elusive - *NPR Short Wave (*15-minute audio with transcript): https://www.npr.org/2025/05/07/1249592906/energy-water-ai-climate-tech

- A Computer Scientist Breaks Down Generative AI's Hefty Carbon Footprint - *Scientific American:* https://www.scientificamerican.com/article/a-computer-scientist-breaks-down-generative-ais-hefty-carbon-footprint

- Explained: Generative AI's Environmental Impact - *MIT News* (a two-part series on the environmental implications of GenAI) : https://news.mit.edu/2025/explained-generative-ai-environmental-impact-0117

Estimate Your AI Footprint

Want a ballpark estimate of the environmental impact of your AI usage? These tools can help:

- Machine Learning CO2 Impact Calculator: https://mlco2.github.io/impact

- AI Carbon Footprint Calculator - Deloitte UK: https://www.deloitte.com/uk/en/services/consulting/content/ai-carbon-footprint-calculator.html

Offset or Design for Sustainability

If you're looking to offset emissions, or just start more informed conversations about sustainability in your procurement and design processes for AI and other tech products in general:

- Sustainable Design Toolkits and Frameworks - https://www.smashingmagazine.com/2023/07/sustainable-design-toolkits-and-resources/

- Infrastructure Masons, an industry-led group working toward carbon neutrality and ethical standards for the data centre and infrastructure industry with their climate accord. https://climateaccord.org/

For L&D Professionals: Where to Start

- Ask vendors about their energy efficiency practices and data center standards.

- Consider using lighter-weight models or on-demand AI rather than persistent tools.

- Build awareness with your team: environmental ethics belongs alongside data privacy, bias mitigation, and learner agency in AI decision-making.