Studiosity 2024 - 2025 Al and Environmental Social Governance (ESG) Policy

Reviewed by the Studiosity Senior Leadership Team.

See full ESG Policy

Executive summary:

- Studiosity is a domain-specific AI service and therefore is able to minimise environmental impact and operational costs.
- Closed-system platforms reduce training costs and environmental footprints compared to un-customised large language models, therefore meeting the demand for sustainable technology in higher education.

Context

Al presents a growing environmental challenge, especially as data centres increase in size and demand to cope with the required energy necessary for the development and operation of sophisticated Large Language Models (The Economist, 2024, Cohen, 2024, Schwartz et al., 2019.) At Studiosity, we recognise the importance of this challenge to society at large and its interest to our institutional and Government partners, educators, students, our own team, and stakeholders.

Studiosity ensures that our institutional education partners are able to do their due diligence and satisfy requirements for AI using Studiosity's intentional design and our domain-specific, fit-for-purpose AI system.

Studiosity's AI design choices and ESG materiality

Because Studiosity seeks to increase the life chances of every student in the world, our leadership team acknowledges that the 'Social' and 'Governance' criteria in ESG are therefore most material to the impact we can have in the world.

Leadership is also aware and will stay updated on the relevance of 'Environmental' footprint. For now, the future discussion for Studiosity senior leadership is that 'Environmental' (**E**-SG) considerations in our policy will become more material than they have been in the past given the need to closely monitor the rapid innovation around generative AI. Our teams will continue our approach of Green-in AI, to deliver an academically-robust platform that is both cost and energy-efficient for our partners in education.

Comparing AI models, LLMs and Domain-Specific

Large Language Models (LLMs) have enormous energy footprints that vary between platforms - taking into account model size, computational resources (e.g. hardware), training hours, infrastructure including data centres, tuning, the efficiency of the algorithms, and other key factors. (Mehta, 2024) To run for each user, LLMs require substantial data storage and computational resources, which, in turn, have significant energy and carbon footprints.

By comparison, domain-specific models are generative AI platforms that are often designed for mission-critical industries. Important use cases include education, health, and finance.

Studiosity is a domain-specific AI service - customised to adhere to standards in the high-stakes, higher education / further education environment. As an example, in 2024, the Salesforce AI Research Team found that smaller models are more cost effective, easier to fine-tune, and operate faster, improving the user experience. (Gamazaychikov, 2024)

As a pre-trained, closed system model, Studiosity eliminates the need to repeat resource-intensive phases and actions. By reducing the computational resources needed for processing new systems repeatedly in universities around the world, by avoiding frequent large-scale re-training, optimising for specific tasks, requiring less data and fewer updates, and utilising more energy-efficient hardware, closed systems like Studiosity tend to have a smaller environmental footprint compared to broad, general-purpose Al platforms.

For mission-critical sectors like **healthcare** and **education**, where the focus is on delivering high-value, task-specific outcomes, the environmental benefits of domain-specific, closed system AI are increasingly evident.

A "Green in AI" approach is material to our organisation

Green-in AI focuses on developing energy-efficient AI systems through algorithm optimisation, hardware improvements, and sustainable practices to minimise environmental impacts, aligning with the growing demand for sustainable and efficient technologies. (Schwartz et al, 2024; Bolón-Canedo et al, 2024). Higher education leaders, educators, and students expect a cost sustainable platform for learners that prevents unnecessary waste and meets the institution's own ESG and risk criteria.¹

¹ For context - although not material to Studiosity's mission - a *Green "by" Al* approach refers to Al technologies that are specifically designed first to positively impact the environment. One example might be Al for precision farming and agriculture, where this Al technology has a specific mission to reduce consumption and associated waste.

Looking ahead: AI in higher education

As expertise in domain-specific AI services grow, and as the demand for cost-effective and environmentally-sustainable AI technologies increases, education leaders are prioritising closed-system, pre-designed platforms: For example, this often looks like:

- Universities choosing to use custom platforms and services which have a significantly smaller footprint (e.g. 'green at production time'), and also reduce upfront and ongoing costs.
- Universities preferring a 'one-to-many' model, which reduces the need for additional energy and resources to train individual systems multiple times across many larger institutions (e.g. 'green at training time').

Guided by the feedback and advice from our 250+ education partners:



References

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