

AI Design Issues in Education

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Abstract

Toi Ohomai | Te Pūkenga engaged artificial intelligence (AI) developers in mid-2021 to help kaiako (teachers) convert existing subject content into self-generating adaptive learning material. The AI-generated content helped students learn at their individual levels and paces. Feedback highlighted improved student comprehension, and time savings and positive professional development for kaiako. However, considerations in the design and use of AI requires clarity about the range of open risks, exploitative processes in data extraction and training, and how these applications can encode bias and impact Indigenous and creator rights. This essay is an introduction to unresolved issues in AI design, and for decision makers to consider three key questions when choosing or using AI: how the application is built; who owns the knowledge created; and whose values shaped the training data and application design. Responsible use of AI requires very considered and transparent selection of any training data and model development, even prior to designing the AI application that is built on the model. Importantly, companies designing or deploying AI applications in Aotearoa New Zealand need to consider the Waitangi Tribunal recommendations for practical changes to the law, to include consent and protection for taonga and mātauranga Māori, to protect Māori cultural works, language, arts and heritage against unauthorised access or use.

Keywords: AI design, training data, AI in education, adaptive learning material

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