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# ARTIFICIAL INTELLIGENCE AND INDIGENOUS (SELF-) REPRESENTATION: A MODEL FOR AGENCY AND AUTONOMY

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## Overview

The recent rise of generative artificial intelligence (Gen-AI) models for cultural production has provided new pathways for those who struggle to generate images and see themselves and their cultures accurately represented. These models contribute to lower entry level requirements and expanding image creation and dissemination to a broader range of potential users. Visual Gen-AI image-making models such as MidJourney, Dall-E, and Stable Diffusion allow users with little formal training in image-making, or technical knowledge about the internal computing processes within generative models, to create images from textual prompts. While some results can be visually impressive and have garnered much attention from the general public and the media, scholars and visual experts have been quick to point out that the images produced reflect the statistical processing of Gen-AI image-making, as well as other structural issues that arise from within the original dataset of images used to train visual models (Salvaggio, 2023). Moreover, the images made with Gen-AI models also raise questions about Gen-AI's internal/baked-in politics of visibility (Gillespie, 2024) as well as the practices used to capture data and how this data is subsequently managed and mined for financial gain, thus drawing criticism for its historical neo-colonial roots and negative impacts (Mejias and Couldry, 2024).

## Aims and Objectives

This paper aims to investigate structural injustices and questions about the visual self-representation of member of Indigenous communities from Abya Yala (the Americas). In doing so it will argue for other potential alternative processes and models for Gen-AI

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image-making that take into account and attempt to minimize (if not counter) the politics of (in)visibility, ownership and management of data and Gen-AI image-making processes. In doing so, the paper promotes an ethical approach to cultural production with Gen-AI rooted in co-creation and work alongside members of Indigenous communities.

**Backdrop and Methods**

The public release of MidJourney in late 2022 was a watershed moment in Gen-AI visual image-making for the general public, but its stereotypical depiction of people from minoritized groups such as Indigenous peoples provided evidence of the model's limitations and structural biases. Soon after, in the early months of 2023, a team of scholars and practitioners from Ireland, Latin America and the UK commenced work on an online practice-based research project with 18 members of Indigenous communities across South America (Argentina, Bolivia, Brazil, Chile and Peru) to discuss the potential of Gen-AI models (MidJourney) to generate self-representational images. The findings corroborated the structural limitations of Gen-AI's tendency for stereotypical depictions, often based on the dataset of Western-made depictions of Indigenous peoples, thus providing little factual accuracy regarding the visual depiction of specific groups nor nuances about socio-cultural traditions. Nevertheless, the project also revealed an unexpected positive reaction from the participants, who despite being disappointed with the images, had a positive reaction associated with perceived notions of higher degrees of autonomy and control over one's self-representation. In short, participants were largely critical of the visual depictions provided by the model but were enthusiastic about the degree of control they exerted in self-representation during the process of making the images.

Based on the initial findings the project team developed a series of customized, personalized, and exclusive Gen-AI visual models designed to provide greater degrees of control, autonomy, and self-determination to participants. The models remain under development, but in its current stage the project allows for three key areas of discussion:

(1) An overview description of the Indigenous Gen-AI model, its current stage of development, and details about the features that make it stand out from other models, such as its self-contained offline processing (based on Stable Diffusion) and the capacity to train and incorporate customized models based on participants' conceptual designs (e.g. textile patterns, facial features, dress and clothing) and generate images based on these;

(2) A discussion of the co-creative production process of image-making developed by the team, with attention to the roles and responsibilities of the stakeholders involved (i.e. scholars, Indigenous artists and an artist-technologist collective), informed by the concept of cultural stewardship and authorship on both individual and collective levels;

(3) An analysis of a selection of images generated by  ndigenous participants, contextualized within their individual projects (how the images are made, how custom

models are trained, and the rationale for their creation), and the impacts the images have achieved through a series of public exhibitions.

## Conclusions and Significance: Applied Digital Buen Vivir

The Indigenous image generator models follow the principles set out in a “Manifesto for Digital Buen Vivir”, written by some of the same Indigenous participants on a separate, but interrelated, research project. The document draws from the principles of Buen Vivir, a post-colonial critique of Western capitalism that is largely centered on notions about Indigenous communities’ wellbeing and integrated perspective towards environmental sustainability, and argues that a better digital life is characterised by “awareness and responsibility regarding social and cultural inequalities”, a broader perspective regarding sustainability and the environment that extends beyond the economic sphere, strong ethical principles regarding data use and cultural stewardship, as well as autonomy and self-determination.

As a practice-based project the Indigenous Gen-AI image generator aims to break with and criticize neo-colonial data practices, the politics of (in)visibility, and limited autonomy and control of image-making by thinking through the issues and creating potential alternatives. In doing so, the project provides greater degrees of autonomy and control to its Indigenous users, as illustrated by the images generated by participants, the Gen-AI models trained by them, and the impacts of the process in their professional and personal lives. Nevertheless, the Indigenous model has also been instrumental in revealing a number of on-going structural problems and issues that characterize Gen-AI image-making more broadly. These include, but are not limited to: (a) the internal structures of personal computing and individualized devices/profiles (e.g. logins, passwords, profiles, data siloing and information design, which are challenging to shared data usage in a remotely accessed machine within the proposed ethical guidelines of cultural stewardship); (b) the infrastructure of the internet across the globe, lower connectivity capacity in the Global South, and inconsistent Gen-AI access; (c) varying degrees of visual production and consumption standards for producers and consumer of images on small (often broken) smartphone screens versus the large screens of desktop computers; (d) varying degrees of digital literacy, distinct cultural approaches regarding digital technologies and Gen-AI, and computing models across users. Our conclusion focuses, therefore, on a set of recommendations for the way forward in terms of Indigenous engagement with Gen-AI technologies for visual self-representation, and an indication of the way that the project will evolve in the next stage.

## References

Gillespie, T. (2024). Generative AI and the politics of visibility. *Big Data & Society*, *11*(2), https://doi.org/10.1177/20539517241252131.

Mejias, U. A., & Couldry, N. (2024). *Data grab: The new colonialism of big tech and how to fight back*. WH Allen.

Salvaggio, E. (2023). ‘How to Read an AI Image: Toward a Media Studies Methodology for the Analysis of Synthetic Images’, *IMAGE: The Interdisciplinary Journal of Image Sciences*, 37(1), https://doi.org/10.25969/mediarep/22328, 83-99.