

LEARNING ACCESSIBILITY AND GEN AI:

The past, present, and possible futures



Hannah Brown

Resources and Bibliography

bit.ly/AI-Accessibility

WHERE ARE WE NOW?

Since the term Artificial intelligence (AI) was coined by computer scientist John McCarthy in 1956 there have been many questions on what AI can and will do for humanity (Anderson, 2024). Despite the worries of a dystopian future often portrayed in the media, there has been a lot of promise for what Generative (Gen) AI can do to aid accessibility in learning environments.

While some doubt and uncertainty of the potential impact of Gen AI still exists, it has already been adopted and applied within the education environment (Alasadi and Baiz, 2023; Chen et al., 2020).



WHAT IS THE POTENTIAL OF GEN AI IN CLASSROOM ACCESSIBILITY?

Gen AI has the opportunity to assist educators in many aspects, including administration, instruction and learning (Chen et al., 2020). An example is the ability of Gen AI to create tailored educational content based on learners needs (Alasadi and Baiz, 2023). This could lead to gen AI adapting lesson plans and education material for individual students, which could improve educational accessibility for individuals. This could be said to be akin to a personalized Universal Design approach. Karpouzis et al. (2024) looked at this in more detail, finding promising results around effectiveness of Gen AI created lesson plans.

Additionally, Gen AI could also be used to provide recall time feedback to help learners improve, and also help with language barriers that can occur in classroom.

WHAT BARRIERS COULD WE FACE?

There are several barriers and concerns around accessibility in higher education. Firstly, currently there are many online AI systems that are free, what happens when/if they start charging for their services (Alasadi and Baiz, 2023)? One factor that makes higher education inaccessible related to cost, and thus increasing use of paid Gen AI tools adds another equity barrier to marginalised groups accessing higher education.

Additionally Gen AI can not be relied upon to produce reliably factual content that is needed within an educational context (Michel-Villarreal et al., 2023). As teachers we have domain-specific expertise, so must fact check any AI generated content.



Welker 2023 highlights the need for an ethical and policy based approach to Gen AI to avoid harm. Gen AI systems may perpetuate bias, create echo chambers, and invade privacy.

SUMMARY

Gen AI shows many areas of opportunity to improving accessibility within higher education. While it cannot fix every accessibility issue, if approached with ethics and caution it could help make higher education environments more accessible for many people.

This topic is still an area of much debate, with a February 2024 newsletter by Jakob Nielsen titled “Accessibility Has Failed: Try Generative UI = Individualized UX” generating multiple critical responses, which can be found in the resource list.

So time to think and reflect, how could I use AI to improve accessibility in my teaching?