Generative Pre-Trained Transformers (GPT-3) and Their Impact on Higher Education

Authors : Sheelagh Heugh, Michael Upton, Kriya Kalidas, Stephen Breen

Abstract : This article aims to create awareness of the opportunities and issues the artificial intelligence (AI) tool GPT-3 (Generative Pre-trained Transformer-3) brings to higher education. Technological disruptors have featured in higher education (HE) since Konrad Klaus developed the first functional programmable automatic digital computer. The flurry of technological advances, such as personal computers, smartphones, the world wide web, search engines, and artificial intelligence (AI), have regularly caused disruption and discourse across the educational landscape around harnessing the change for the good. Accepting AI influences are inevitable; we took mixed methods through participatory action research and evaluation approach. Joining HE communities, reviewing the literature, and conducting our own research around Chat GPT-3, we reviewed our institutional approach to changing our current practices and developing policy linked to assessments and the use of Chat GPT-3. We review the impact of GPT-3, a high-powered natural language processing (NLP) system first seen in 2020 on HE. Historically HE has flexed and adapted with each technological advancement, and the latest debates for educationalists are focusing on the issues around this version of AI which creates natural human language text from prompts and other forms that can generate code and images. This paper explores how Chat GPT-3 affects the current educational landscape: we debate current views around plagiarism, research misconduct, and the credibility of assessment and determine the tool's value in developing skills for the workplace and enhancing critical analysis skills. These questions led us to review our institutional policy and explore the effects on our current assessments and the development of new assessments. Conclusions: After exploring the pros and cons of Chat GTP-3, it is evident that this form of AI cannot be un-invented. Technology needs to be harnessed for positive outcomes in higher education. We have observed that materials developed through AI and potential effects on our development of future assessments and teaching methods. Materials developed through Chat GPT-3 can still aid student learning but lead to redeveloping our institutional policy around plagiarism and academic integrity.

Keywords : artificial intelligence, Chat GPT-3, intellectual property, plagiarism, research misconduct

Conference Title : ICEPTT 2023 : International Conference on Education, Pedagogy, Teaching and Technology
Conference Location : Sydney, Australia
Conference Dates : March 27-28, 2023