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Friend or Foe, integrating Artificial Intelligence chatbots into curricula, the case of ChatGPT
for Assessment in Apprentice Programmes

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Abstract

The literature around Artificial-Intelligence (AI) and particularly Chat-Generative Pre-Trained-Transformers (ChatGPT) in curricula is limited (Rodolf, Tan and Tan, 2023) with only eight publications focusing on the topic at the time of this paper. The emergence of near human AI tools has the potential to significantly impact assessments in Higher-Education for students and staff. AI-based natural language production systems are now able to produce unique text with minimal human intervention (Straume and Anson, 2022). This paper considers an alternative perspective, that AI tools and ChatGPT could be considered *'friends-not-foes'* and are perhaps the latest innovation that will aid students in creating applied work.

Banks (2011, p.63) argues that *"educators have long-feared that new technological advances will subvert their students learning processes"* and AI is merely the latest iteration of this. In contrast Rodolf, Tan and Tan (2023) argue that little has meaningfully changed within the context of classrooms, arguing that our ancestors would be remarkably comfortable and familiar in a modern-day classroom. While AI has the potential to significantly impact assessment, it may do little to impact teaching methods.

The paper proposes a method to integrate ChatGPT into assessment in a managed and structured way. The proposal is one that should aid students in the early writing of their work, while presenting the opportunity to meaningfully adding additional context and meaning to the arguments presented by AI. Elon Musk described the benefits of *'ChatGPT [as] scary good'* and having the potential to change the world. Universities and business-schools must react (Piper, 2022).

We propose enabling students to make use of AI and ChatGPT for the starting point of their work before asking them to add meaning and context to the generic text to meet the assessment and learning outcomes. Apprentice students will understand the context and limitations of the AI text, as they are employed by their apprenticeship provider. The fictitious case example considers a group of apprentice students who work for the BBC. Rodolf, Tan and Tan (2023) consider serious limitations of ChatGPT at present, as it cannot yet provide sources and quotations. The two elements clearly remain important to academic works.

We aim to spark debate among academics as to the limitations, benefits, and challenges of adopting ChatGPT as a tool to aid assessment in business-schools. Whilst considering that students are likely to be adopting the same tools, in the same way that students of mathematics can use calculators.

Introduction

Rodolf, Tan and Tan (2023, p.15) argue that ChatGPT is the next stage of evolution in technology. They contend that we had *'hand-held calculators, [which initially presented] much concern about the end of people's numeracy skills [and] today, they are [...] integral to teaching maths and on every smartphone.'* Further, they argue that *'students and academics alike use spell[ing] and grammar checkers, thesauruses and Wikipedia'* and while this has aided our learning, it has not replaced it. Perhaps ChatGPT has similar potential for education providers and learners.

The potential impact is unlimited. ChatGPT has been heralded as the solution for journalists who are tasked with short deadlines and pressures for delivery of short new stories (Akim, 2023), abolishing homework for school level students (Cavendish, 2023) and even the exciting prospect of replacing politicians with chatbots (Thomas, 2023). However, while the potential benefits are clear, there are doubts as to the ease in which it can be truly adopted, Ribeiro (2023) argues the automated processes as offered by ChatGPT also have the potential to make work more complex *'generating new tasks that many workers might perceive as mundane.'*

In the context of higher education and business school apprentices, consider the case of assessment for a group of students who are employed by the BBC and studying a management apprenticeship programme. For context and transparency, neither university have such students from this employer. The context of the assignment is a typical business environmental scanning module, where the students are required to consider the internal and external environments of their organisation as part of a Business Studies degree programme. Typically, the students may complete the usual environmental scanning tools that are available, such as PESTEL/DEEPLIST and Cultural Webs or Value Chains (Scholes, Whittington and Johnson, 2019). The students may complete this task at Level 4 before building on the same arguments during later study, perhaps at Level 5 or 6 to develop a full strategic review or strategic direction.

The students typically consider the role of the internal and external environment and come to a natural conclusion as to the main challenges, opportunities and threats presented by the environment and the resources and competences of the business. The completion of this task requires research skills and the ability to extract information from company reports and industry reports. There is skill in discriminating against data that is relevant for inclusion and important. The students who complete the most detailed research and present this in a written narrative, perhaps with critique and evaluation, typically score the most favourably from a grading perspective. Presently, ChatGPT cannot complete this task fully, but it can begin to construct the arguments in relation to the environmental challenges and opportunities. The text that follows demonstrates text that is currently available as AI from ChatGPT, and could be used as the starting point for academic writing.

Italics Indicates ChatGPT provided text.

Introduction

The British Broadcasting Corporation (BBC) is a public service broadcaster that has been providing news, entertainment, and educational programming to the British public since 1922. The BBC is an important institution in the United Kingdom and is responsible for shaping public

opinion on a wide range of issues. In this essay, we will examine the internal and external environment of the BBC and how these factors impact the organization.

Internal Environment

The internal environment of the BBC includes the organization's culture, leadership, structure, and resources. The BBC is a large organization that employs over 22,000 people, and it operates under a unique funding model where it is financed by a license fee paid by every household that owns a television set in the United Kingdom.

Culture

The BBC has a strong culture of impartiality and professionalism, which is reflected in its editorial policies and programming. The organization has a reputation for being trustworthy and reliable, and it takes its public service obligations seriously. The BBC's commitment to impartiality is enshrined in its editorial guidelines, which state that the organization must be free from political bias and that its reporting should be accurate and fair.

Leadership

The BBC is led by a director-general, who is responsible for the overall management of the organization. The director-general is appointed by the BBC Trust, which is responsible for overseeing the organization and ensuring that it delivers on its public service obligations. The current director-general of the BBC is Tim Davie, who was appointed in 2020.

Structure

The BBC has a complex organizational structure, with multiple divisions and departments responsible for different areas of the organization's operations. The organization is divided into several divisions, including BBC News, BBC Studios, BBC Radio, and BBC iPlayer. Each division is responsible for a specific area of the organization's operations, and they work together to deliver programming and content to the British public.

Resources

The BBC has significant resources at its disposal, including a large workforce, state-of-the-art facilities, and a substantial budget. The organization's funding model ensures that it has a reliable source of income, which allows it to invest in programming, technology, and infrastructure.

External Environment

The external environment of the BBC includes the political, economic, social, and technological factors that impact the organization. The BBC operates in a complex and rapidly changing environment, and it must adapt to these changes to remain relevant and effective.

Political

The political environment in which the BBC operates is complex, and the organization must navigate a range of political pressures and constraints. The government has a significant influence on the BBC's operations, as it sets the organization's funding level and has the power to appoint the BBC Trust and director-general.

Economic

The economic environment in which the BBC operates is also important, as the organization's funding model relies on the license fee paid by British households. The organization's income is not directly tied to advertising or subscription revenue, which provides some stability but also limits its ability to invest in new programming and technology.

Social

The social environment in which the BBC operates is constantly evolving, as the British public's expectations and attitudes towards media consumption change. The rise of social media and online platforms has had a significant impact on the way people consume news and entertainment, and the BBC must adapt to these changes to remain relevant and effective.

Technological

The technological environment in which the BBC operates is rapidly evolving, with new technologies and platforms emerging all the time. The organization must stay up-to-date with these developments and invest in new technologies and infrastructure to remain competitive.

The text as is currently available from Chat GPT does not adequately meet basic academic traditions. There is limited connection to theory, there is no underpinning, and the arguments are not cited. Further, ChatGPT opted to include a PEST framework which may or may not have been covered by the module teaching. In some cases, there is significant opportunity for students to erroneously submit work that does not meet the basics of the criteria. Further, as is made clear by ChatGPT when using the service, the programme has *'limited knowledge of the world and events after 2021.'*

However, the text as demonstrated above is well written, and easily *'reviewable'* by students. This means that ChatGPT has the potential to provide students with an effective and well written first draft of their arguments and assignments. Clearly, it can be seen that the arguments presented by the programme have the potential to be underpinned, edited and improved to meet academic traditions and support learning. One of the significant limitations of the model that human intelligence is able to easily overcome is that GPT models are based on a statistical approach that learns patterns from a large data set of text, which can perpetuate biases and stereotypes present in the data (Dale, 2017; Lucy and Bamman, 2021). This means that faculty can make use of such AI tools to help students with writing and research, but not as a replacement for critical thinking and original work (Rodolf, Tan and Tan, 2023).

Anson and Straume (2022) argue similarly, that this is a genuine opportunity to embed AI programmes into higher education, claiming that that students may begin with an AI draft and through tutor feedback, the process of *'leading students through processes of invention, drafting, and multiple revisions using peer feedback [can] begin with AI-generated text, the subsequent effort to shape and repurpose them would represent significant cognitive (human) effort—and learning.'*

The author proposes a framework where students are encouraged to engage with ChatGPT as has been demonstrated in the BBC case example. The students would be encouraged to download an AI script and then edit the wording to meet academic tradition, learning outcomes and underpin the arguments. The example above from the BBC demonstrates the starting point for such positions and demonstrates where students would need to add *'human intelligence'* and meaning. This approach to AI supported writing may be to the essay writing what the calculator was to mathematics. Perhaps the future of work will include the submission of *'raw'* ChatGPT text as an appendix, for comparison alongside the updated and authored arguments.

The author seeks to ignite a debate about the suitability of such approaches to assessment, the limitations, challenges and benefits of these approaches and the perspectives of the academic community. The following questions are therefore key;

- What are the challenges of adopting AI/ChatGPT for Staff and Students?
- What are the benefits of adopting AI/ChatGPT for Staff and Students?
- How can assessments be protected against mis-use of AI?
- How can AI/ChatGPT deliver meaningful value for students, whilst not detracting from their learning?
- What is the academic community's (BAM) perspective on the effectiveness of ChatGPT as a study aid?

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