

ChatGPT's implications for TLA

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Photo by Stefan Els

Reflections

1. Some responses
2. Some caution
3. Our graduates
4. Our position (with thanks to colleagues in LTE)
5. Going back to the basics and what could it mean in practice?

1. Some responses....

Fight / Flight

- **Ban**
- **“catch-out”** and **“outsmart”**
(Plagiarism detection and proctoring software)
- Go back to **pen and paper** and **invigilated sit-down** exams
- Focus on what it **cannot do**

Learn from the past

- Calculator
- Internet
- Wikipedia
- Do not believe all the hype....

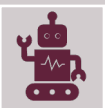
Rather re-imagine / re-think / re-focus

- **Academic integrity** and ethics, copyright, originality, authenticity....
- **Human-Machine relationship** and what makes us human (creativity, critical thinking, common sense, reasoning, social connections, application of knowledge in real life, problem solve in context, consciousness, morality, etc.)
- How should we **prepare students?**
- **Information Literacies** and writing
- **Partnership** and what it can do
- And as with any partnership.... **Remain critical of the partner and self-aware....**



As a language model, ChatGPT can be utilized in various ways in higher education for teaching, learning, and assessment. However, there are some challenges that need to be addressed when using ChatGPT in these contexts:

2. Some caution....



What was the **body of material** on which this AI was trained? In other words, what has this AI read and absorbed, to make its “assumptions” of what strings of words make “sense”?



Who, and what, has been **excluded from this body of material**, and therefore, potentially, the text generated?



What **assumptions, biases and injustices are embedded in this material**, and therefore, potentially, in the text generated?

(Lucinda McKnight,

<https://www.timeshighereducation.com/campus/eight-ways-engage-ai-writers-higher-education>)

On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? 🦜

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1. Quality of the Input: The quality of the input provided by users can greatly affect the accuracy of ChatGPT's responses. If the input is poorly phrased, unclear, or contains errors, ChatGPT may provide inaccurate or irrelevant responses.
2. Limited Domain Expertise: While ChatGPT has been trained on a vast amount of data, it may not have deep domain expertise in specific subject areas. This could limit its ability to provide accurate responses to complex or specialized questions.
3. Bias in Training Data: Like all AI models, ChatGPT is only as unbiased as the data it was trained on. If the training data contains biases, these biases may be reflected in ChatGPT's responses, which could perpetuate and amplify existing inequalities.
4. Lack of Personalization: ChatGPT may struggle to personalize responses to individual students, as it is not able to take into account a student's unique learning needs, preferences, and history.
5. Ethical Considerations: The use of AI in education raises ethical questions around issues such as privacy, data security, and fairness. It is important to ensure that ChatGPT is used ethically and responsibly, and that students are informed about how their data is being used.
6. Language Barriers: ChatGPT is currently trained to understand and respond in English, which may pose a challenge for students who do not speak English as their first language.

Overall, while ChatGPT has the potential to be a useful tool in higher education for teaching, learning, and assessment, it is important to be aware of these challenges and work to mitigate them in order to ensure its effective use.

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<https://www.timeshighereducation.com/news/ai-writer-ways-engage-ai-writing-education>

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Critical thinking

3. Our graduates: DRAFT NEW SU Graduate profile

Enquiring Mind

- **Curious , lifelong learners** who think **critically and creatively**, using **systematic, disciplinary-based methods of scientific discovery, knowledge-building and problem-solving**

Engaged citizen

- **Actively involved** in their communities and **contribute to the well-being of society**

Dynamic professional

- **Personal and intellectual autonomy** to use the knowledge gained at university and beyond to **solve complex problems in diverse contexts**

Caring Being

- Embrace **SU values** of Compassion, Accountability, Respect, Equity and Excellence

Digital knower

- has **digital agility** by displaying a willingness to continuously develop digital consciousness, knowledge and expertise rooted in a critical awareness of the relationship and positioning of machines in uncertain future scenarios.
- An SU graduate should evolve as a digital knower by **continuously developing an understanding of the positioning and relationship of machines in social and work scenarios** as well as the entrepreneurial implications. Graduates are **continuously aware of the social, entrepreneurial and ethical implications of the human non-human relationship and are aware of and practice responsible and inclusive digital citizenship.**

ChatGPT and AI in Higher Education Teaching-Learning-Assessment

AI like ChatGPT is here to stay. It will only get more powerful. Students will use it. Although there are concerns, we believe that embracing AI could present exciting opportunities to rethink and reimagine our approach to TLA at SU so that we can equip our graduates with the necessary skills to work responsibly with AI.

DLTE @ SU, January 2023

KEY TERMS

AI
Artificial Intelligence
GPT
Generative Pre-trained
Transformer
HE
Higher Education
TLA
Teaching-Learning-
Assessment
DLTE
Division for Learning
Teaching Enhancement
CTL
Centre for Teaching and
Learning
CLT
Centre for Learning
Technologies

What is ChatGPT?

ChatGPT is an easy-to-use AI chatbot that can 'read' and 'answer' posed questions and prompts in natural, written language. It can also produce code, essays, poems, and stories, or solve problems in code and identify faults in calculations. It is important to note that this technology is not cognisant but rather retrieves information and linguistic patterns from the data it was provided by its human creator. Incorrect data can therefore be perpetuated as fact, which means that this technology can be described as 'a-moral' – it might present incorrect statements as true facts, make up academic references and perpetuate biases found on the internet.

Because it creates tailor-made 'answers' on command and does not store or share its responses, it cannot currently be traced by plagiarism detection software such as Turnitin. The January 2023 version of ChatGPT was trained on datasets that predate 2021 and it cannot retrieve information by browsing the most up-to-date version of the internet. Although it can provide in-text references and sources in its responses many of these may be falsified, wrongly referenced, and untraceable.

Why take note of it?

Generative pre-trained transformers (GPTs) are not a new technological phenomenon and have been in development and use for many years. Similar AI technologies form the foundation of many educational tools we already use, such as SUNLearn and Turnitin. ChatGPT is, however, one of the first GPT models to become highly accessible and it highlights the ease with which these tools can be used by ordinary individuals. AI like ChatGPT is here to stay and will improve rapidly. Given that this will become a part of our students' future careers and everyday lives, it may not be sensible to prohibit its use outright. Is it not perhaps our responsibility to teach students how to engage with such tools in a critical manner, as we do with information literacy?

The immediate implications of ChatGPT on TLA at SU include both concerns and exciting opportunities. One of the most obvious **concerns is regarding assessment**, and more specifically **non-invigilated summative assessment tasks**, such as essays on common topics, take-home exams, quizzes, critical responses to standard texts or summaries. The most common responses to this concern are to

4. Our position



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www.sun.ac.za/lte

5. Going back to basics of TLA

(New Draft) Teaching and Learning Policy

A **learning-centred approach** is focused on learning as a **partnership**, where students are seen as **co-creators of knowledge** and learning environments. The emphasis is placed on the **process of learning** and **knowledge building** [by the student] rather than on the *transmission of knowledge* [by the teaching academic] (Von der Heidt and Quazi, 2013), including a focus on **life long, life-wide and life-deep learning**.

- Teaching-learning-assessment is a **shared endeavor**
- Foregrounding **context and responsiveness** to enable students to be the best **for** the world in service of society

Assessment policy

1. Assessment **OF** learning (**summative**) producing valid conclusions about student progress, achievement and mastery of material. (reliability and replicability, fairness, transparency)
2. Assessment **FOR** learning (**formative**) allowing students to **judge their own progress** before final summative assessment includes adequate **learning-centred feedback** (one-to-one, lecturer generated, automated, self- or peer generated)
3. Assessment **DURING** learning (**sustainable**) to develop the skill of **lifelong learning**, delivering students who can **assess their own work and that of others fairly** (self- and peer assessment)

Focusing on the PROCESS, CO-CREATION, PARTNERSHIP, CRITICAL THINKING and CREATIVITY and not only the PRODUCT/OUTPUT

5. What could it mean in practice?

Focusing on the PROCESS, CO-CREATION, PARTNERSHIP, CRITICAL THINKING and CREATIVITY and not only the PRODUCT/OUTPUT

- Encourage students to use ChatGPT (and similar technological tools) for **peer learning and feedback**
- Encourage creative “**prompt engineering**” (asking good questions) and search optimization
- Encourage **critically evaluating the answers** provided in terms of bias, factual inaccuracies
- Use the generated text to **formulate own opinions / own critical stance** towards a specific topic

In summary

1. Some responses → • Do not ban / catch-out / cannot do, but rather re-imagine
2. Some caution → • Remain critical (bias, assumptions, privacy, etc.)
3. Our graduates → • Graduate profile and purpose of HE
4. Our position → • Exciting opportunities to re-think TLA practices
5. Going back to the basics → • Learning-centered TLA with focus on process, co-creation, partnership, critical thinking and creativity (the things that make us human....)

“What is humanity’s value proposition [to TLA]? To put this slightly differently, what do humans [*lecturers, students and graduates*] have to contribute when so many of their professional and personal [TLA] outputs can be completed by machines?”

Jason J. Gulya, [https://www.highereducationdigest.com/the-humanities-in-the-age-of-ai-a-professors-reflection/?ct=t\(EMAIL_CAMPAIGN_8_3_2022_22_5_COPY_01\)](https://www.highereducationdigest.com/the-humanities-in-the-age-of-ai-a-professors-reflection/?ct=t(EMAIL_CAMPAIGN_8_3_2022_22_5_COPY_01))

And ChatGPT's opinion about implications?



Overall, the use of ChatGPT in teaching, learning, and assessment has the potential to support more personalized and interactive experiences for students, as well as more efficient and effective approaches for teachers and instructors. However, it's important to note that these potential uses of ChatGPT are still relatively new and untested, and further research is needed to fully understand their potential benefits and limitations.

Let's continue the conversation!

Thank you
Enkosi
Dankie



Photo by Stefan Els