

The Academic Writing Centre and the
Academic Communication Centre
warmly welcome you to the
IOE Academic Writing Seminar Series

#IOEWritingSeminar



A tool does not replace the craft: machine translation literacies for academic writing and some lessons for how we might address ChatGPT developments

Mike Groves, Klaus Mundt

#IOEWritingSeminar



Overview

- Tracing the impact of online translation in HE (especially EAP)
- Looking at what ChatGPT does
- Drawing parallels

Literature Review

- Rensburg et al (2012), Sheppard (2011)- MT has potential, but has very poor quality output
- Groves and Mundt (2015)- Output of a passable standard
- Ducar and Schockey (2018)- Handles high frequency idioms well, but problems with low frequency
- Crossley (2018)- Students write with richer lexis
- Chung and Ahn (2018)- Can help students with prepositions and articles, but not culturally rooted idioms
- Groves and Mundt (2022)- Academic staff are cautiously accepting
- Zhou, Shao and Groves (2022)- Students can be strategic users- parallels with translanguaging

Lee- 2021- Meta Analysis

- Accuracy has vastly improved, (including the semantically opaque)
- Liked (if cautiously) by students
- There is a measurable positive impact

What can online translation do?

- Translate at the level of the sentence
- Far better at written language
- Produce language of impressive accuracy

- Cannot totally compensate for lack of language skills

Ownership. Who owns student/GT output?

- Questions of ownership with automatically translated texts.
- Are there questions of ownership with prominent works written in another language and translated
- Question clearly depends on Learning Outcomes
- Suggestions to ask for declarations of use
- Same for spellcheck? Endnote?

Teaching and Assessment. Do we still need to teach language skills?

- Given online translation, does the average EAP graduate need to have a high level of English?
 - No- Reading, listening, writing, can all be translated
 - Yes- Exams, discussions, incidental learning

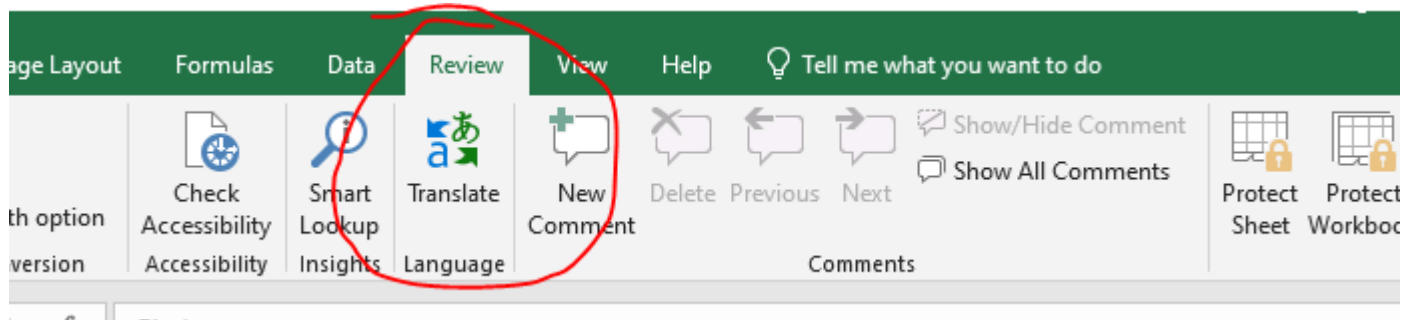
(Not including the idea of mistranslation by the computer. This is far more likely to happen with a student who has been pushed through a listening assessment at the end of a pre-sessional, because he's a nice lad and he tried hard)

Assessment. How do we deal with this?

- Unsupported (exams, discussions)
- Supported (essays, presentations)

Preparation for future study. Are we being realistic?

- Academic staff are comfortable with students using MT- so why shouldn't EAP be?
- They will graduate into a world where MT is embedded into Microsoft Office, Skype and Wechat. What is the point of proscribing it?
- But this is not to suggest techno-utopianism



Machine Translation Literacies

- For the student
 - How to write for MT to translate
 - How to check the output
 - How to use MT as a facilitative technology, rather than a substitutive one
- For the institution
 - How to talk about this with students
 - How to set assessments which recognise when MT can and cannot be used
 - When and where to grade what
 - A developmental mindset

We have always said that GT only works at the level of the sentence

All Images Books Shopping

About 4,950,000,000 results (0.68 seconds)

Chinese (Simplified)

Big to small- the numbers
(building and apartment
number come at the end)

辽宁大连市甘井
子区革镇堡街道
高新园区数码路
北段77号19层24
号

Liáoníng dàlián shì gānjǐng zǐ
qū gé zhèn bǎo jiēdào gāoxīn
yuánqū shùmǎ lù běi duàn 77
hào 19 céng 24 hào

This is the beginning of contextual awareness

- Which brings us to Chat GPT

Chat GPT

- Generative AI
- View points ranging from:
- ‘embrace it’ (Oppenheimer 2023)
 - since it has not significantly changed the dynamics of cheating, since ghost writers were available before
- to
- ‘resist and curtail it’ (Wallbank 2023)
 - since it undermines student voice/agency and the mission of education to instil critical thinking and the generation of new knowledge

An observation

- We generated 26 texts from 3 different OpenAI accounts.
- We asked it questions on different topics and of different specificity.
- These were general questions, like one might ask a search engine.
- We did not specify further parameters (e.g. intended output audience).
- We asked it the same questions from different accounts, a week apart.

What does ChatGPT know?

Is grammar translation a good teaching approach?

The grammar translation method is a traditional approach to teaching a foreign language that emphasizes the study of grammar rules and the translation of written texts. It is often used to teach languages such as Latin, Greek, and other classical languages. The approach is based on the idea that a foreign language can be learned by studying its grammar rules and translating written texts. The grammar-translation method has been criticized by many experts in the field of language teaching, as it may not be the most effective way to teach a foreign language. ...

The Grammar-Translation method is a traditional language teaching approach that emphasizes the study of grammar rules and vocabulary, and the translation of written texts from the target language to the native language. This approach is commonly used to teach languages such as Latin, Greek, and other classical languages. The method has been criticized for not providing students with enough opportunities to practice speaking and listening in the target language, and for not preparing students for real-life communication. ...

Decent start of an answer that is further elaborated in the full response. Quite similar in terms of development and phrasing. The wording will change if the ChatGPT response is re-generated. The content/structure not so much.

Some copying, but not systematic

14 January, account A, 26% turnitin

¹The grammar translation method is a traditional approach to teaching a foreign language that emphasizes the study of grammar rules and the translation of written texts. It is often used to teach languages such as Latin, Greek, and other classical languages. The approach is based on the idea that a foreign language can be learned by studying its grammar rules and translating written texts.

The grammar-translation method has been criticized by many experts in the field of language teaching, as it may not be the most effective way to teach a foreign language. Some of the main criticisms of this approach include:

- It can lead to a lack of fluency in speaking and listening, as the focus is mainly on grammar and written texts.
- It doesn't provide enough practice in the use of the language in context.
- It doesn't help learners to develop communicative competence, the ability to use the language effectively in real-life situations.
- It can be boring and demotivating for students.

Instead, modern ²language teaching approaches such as communicative language teaching, task-based language teaching, and content-based instruction focus on developing students' ability ⁴to use the language in real-life situations and to communicate effectively. They provide learners with opportunities for authentic communication and emphasize the ⁴use of the target language in context,

There can be some copying from web sources and repetition across generated texts, but not as a visible trend.

20 January, account B, 18% Turnitin, incl. similarity to account A output

¹The Grammar-Translation method is a traditional language teaching approach that emphasizes the study of grammar rules and vocabulary, and the translation of written texts from the target language to the native language. This approach is commonly used to teach languages such as Latin, Greek, and other classical languages.

The method has been criticized for not providing students with enough opportunities to practice speaking and listening in the target language, and for not preparing students for real-life communication. It also doesn't help students to develop fluency or a good understanding of the culture of the target language.

However, it can be argued that the Grammar-Translation method is useful for students who are interested in literature, history, or other academic subjects taught in the target language. It can also be beneficial for students who are preparing to read and understand primary texts written in the target language.

It is important to note that there are other methods such as the communicative approach, task-based teaching and content-based instruction that provide more opportunities for students to use the target language in communicative contexts and to develop communicative competence.


20 January, account B, regenerated, 9% turnitin

Grammar-translation is a method of teaching foreign languages that emphasizes the study of grammar rules and the translation of written texts. This approach has been widely used in the past, particularly in the teaching of Latin and other classical languages. However, it has been criticized by many language teachers and experts for its lack of emphasis on speaking and listening skills, as well as its limited usefulness in preparing students for real-life communication in the target language.

Critics argue that this approach is not effective in developing communicative competence, which is the ability to use a language for meaningful communication. They argue that the focus on grammar rules and translation can be memorization-based and not help students understand the meaning and context of the language. Instead, they advocate for communicative language teaching, which emphasizes the use of authentic language in real-life situations and encourages students to actively participate in communication.

There are many other methodologies and approaches to teaching languages that have been developed and are used by teachers and educators such as Task-based Language Teaching, Content and Language Integrated Learning, and Language Immersion. Each approach has its own advantages and disadvantages, and the choice depends on the context, the students' needs and the teacher's expertise.

KL Explain for an academic audience and with references if grammar translation is a good teaching approach.

 Grammar Translation is a teaching approach that has been used for teaching foreign languages since the 19th century. The method is based on the idea that learning a language involves mastering its grammar rules and its vocabulary. Grammar Translation is a traditional approach that is still widely used in language teaching, particularly in settings where students are preparing for exams.

The Grammar Translation approach involves a focus on grammar rules and the translation of texts from the target language to the native language and vice versa. The approach involves a lot of drilling and memorization, with an emphasis on grammar rules, vocabulary, ■

...[Some text omitted]...

Data from 19 February 2023

- Quite simple question.
- Decent content. Decent language.

No referencing till the end.

- Krashen (1982) cited in text and on reference list
- Richards and Rodger (2014) on reference list but not cited in text

Moreover, some researchers argue that the Grammar Translation approach can be demotivating for students, as it does not encourage interaction or creativity, which are factors that can enhance the learning experience. For instance, according to Krashen (1982), students who learn a language through interaction and communication are more likely to develop an innate understanding of the language's grammar and usage, as opposed to students who learn a language through explicit instruction.

Therefore, while Grammar Translation may be useful in certain situations, it is not considered the most effective approach for teaching a foreign language. Instead, modern language teaching approaches, such as communicative language teaching, task-based language teaching, and content-based language teaching, focus on creating a learning environment that emphasizes communication, interaction, and meaningful learning experiences.

References:

Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Oxford, UK: Pergamon Press.

Richards, J. C., & Rodgers, T. S. (2014). *Approaches and methods in language teaching*. Cambridge, UK: Cambridge University Press.

What does ChatGPT know?

What is cryptonormativism?

Cryptonormativism is an emerging concept in the field of legal and governance studies. It refers to the idea that the laws and regulations that govern digital assets such as cryptocurrencies and blockchain technology should be created and implemented in a decentralized and autonomous manner, rather than by traditional centralized institutions such as governments and traditional financial institutions.

Cryptonormativism is a term that refers to the idea that the norms and rules governing behavior in the digital world, specifically in the realm of blockchain and cryptocurrencies, are different from those of the traditional physical world. The term is often used to describe the decentralized and autonomous nature of blockchain-based systems, which operate independently of traditional legal and regulatory frameworks.

Untrue – fabricated answer

An observation

- We found that in our data, ChatGPT showed:
 - Impressive writing for machine generated text
 - Reminiscent of the 'shock' when MT started using neural network technology
 - Some good output in terms of content
- But also:
 - Possible style inconsistencies within the same text
 - Little depth
 - May go off topic
 - Academic referencing on request, but limited and inconsistent
 - No authorial voice
 - No analysis of the data it used
 - Some copying from sources it used
 - Some contrived points (e.g. explains the 'benefits of cancer')
 - Instances of fabrication (although it may sound plausible), presented as truth

Parallels and Opposites

Machine Translation	Chat GPT
Not a silver bullet - needs pre- and post-editing	Output not always reliable or appropriate - needs fact checking Content is un-referenced or referenced with no analytical understanding of the reference
Cannot add organisation, argumentation	Does not produce analysis. Stays at the bottom of Bloom. Arguments tend to be superficial.
Supported vs unsupported use	Supported vs unsupported use
Not a substitute for learning	Not a substitute for learning
Not going away; will improve	Not going away; will improve
Greater concerns over MT as writing tool than as reading tool	Great concerns about generative (writing) AI, no public discussion of reading AI (e.g. Humata.ai)
Usage hard to detect	Usage hard to detect (even with 'detection apps' – how reliable are these?), e.g. https://openai-openai-detector.hf.space/
Does not include content	Adds content
Makes no claims at being correct	Presents its output as truth, even if it is verifiably false
Has not made it into the newspapers much	All over the press

Arising questions

There is a real risk in knee-jerk reactions and, e.g., allegations of academic misconduct based on hunches.

For both the use of MT and generative AI in HE/EAP we can ask:

- Why do students feel the need to use it, and for what purposes?
- Are students with us to learn or to 'survive' or to 'beat the system'?
 - What do/don't we do so a student feels they trust technology more than themselves?
 - Do our modes of assessment 'encourage' its use?
- How can we help them use technology responsibly?
 - Developing own skills vs tech dependency – competence & confidence implications
- An HE degree affords access to the job market. Will such technology be available/used there?

What can we do?

- We can investigate what the technology can do and what its limitations are.
- We can investigate ways in which the technology can be addressed/used constructively in teaching and learning.
- We can expand our own technology literacies to help the students expand theirs (and vice versa) – this can be done in collaboration.
- We can emphasise the need to engage critically with information.
- We can emphasise the difference between ‘surviving university’ and deep learning for lasting effect and transferrable knowledge (see MLE, see job market question).
- We can do that in addition to what we already do to train students to become responsible learners/researchers/writers/professionals.
- We can rethink the ways we teach and assess.

Thank you!

Questions?

Suggestions?

References

- Chung, E. S., & Ahn, S. (2021). The effect of using machine translation on linguistic features in L2 writing across proficiency levels and text genres. *Computer Assisted Language Learning*, ahead-of-print(ahead-of-print), 1–26. <https://doi.org/10.1080/09588221.2020.1871029>
- Crossley, S. A. (2018). Technological disruption in foreign language teaching: The rise of simultaneous machine translation. *Language Teaching*, 51(4), 541–552. <https://doi.org/10.1017/S0261444818000253>
- Ducar, C., & Schocket, D. H. (2018). Machine translation and the L2 classroom: Pedagogical solutions for making peace with Google translate. *Foreign Language Annals*, 51(4), 779–795. <https://doi.org/10.1111/flan.12366>
- Groves, M. and Mundt, K. (2021) 'A ghostwriter in the machine? Attitudes of academic staff towards machine translation use in internationalised Higher Education. *Journal of English for Academic Purposes*. Vol. 50 <https://doi.org/10.1016/j.jeap.2021.100957>
- Lee, S.-M. (2021). The effectiveness of machine translation in foreign language education: a systematic review and meta-analysis. *Computer Assisted Language Learning*, ahead-of-print(ahead-of-print), 1–23. <https://doi.org/10.1080/09588221.2021.1901745>
- Oppenheimer, D. (2023) 'ChatGPT has arrived – and nothing has changed'. *Times Higher Education*, 17 January 2023, <https://www.timeshighereducation.com/campus/chatgpt-has-arrived-and-nothing-has-changed>
- Rensburg, A. van, Snyman, C., & Lotz, S. (2012). Applying Google Translate in a higher education environment: Translation products assessed. *Southern African Linguistics and Applied Language Studies*, 30(4), 511–524. <https://doi.org/10.2989/16073614.2012.750824>
- Sheppard, F. (2011). Medical writing in English: The problem with Google Translate. *La Presse Médicale*, 40(6), 565–566. <https://doi.org/10.1016/j.lpm.2011.02.024>
- Shu, Z, Zhao, S & Groves, M (2022) Towards a digital bilingualism? Students' use of machine translation in international higher education *Journal of English for Academic Purposes*. 60. <https://doi.org/10.1016/j.jeap.2022.101193>
- Wallbank, A.J. (2023) 'ChatGPT and AI writers: a threat to student agency and free will?' *Times Higher Education*, 18 January 2023, <https://www.timeshighereducation.com/campus/chatgpt-and-ai-writers-threat-student-agency-and-free-will>