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International students' use of online translation tools

INTRODUCTION

In the past decades, language-checking and translation tools such as Grammarly and Google Translate (GT) have achieved ever higher accuracy. Freely available on the internet, these tools enable L2 students to error-correct or translate words, sentences, paragraphs or whole texts with results of reasonably good quality and comprehensibility, often at a level close to what is needed for admission into English-taught university programmes (Groves and Mundt, 2015).

As has been observed, international students increasingly use these tools (Alhaisoni & Alhaysony, 2017; Ducar & Schocket, 2018; Jolley & Maimone, 2015). This could potentially transform learning and teaching, triggering mixed opinions from language teachers (Clifford, Merschel, and Munné, 2013) and tutors of English for Academic Purposes (EAP) for students at (pre-)university level. Some regard translation software as 'just a tool', which

can be of practical use to L2 students facing the challenge of writing in English, similar to the text-copying students sometimes apply before moving onto paraphrasing information in their own words (Currie, 1998). Others, however, perceive the use of machine translation as a threat to language learning (Jolley & Maimone, 2015).

Apart from pedagogical implications, technological language-assisting tools have consequences for university policy on academic conduct: should these tools be allowed, discouraged or forbidden? Even if the original text is written by an author in their L1, translation tends to raise ethical questions about what exactly constitutes 'contributorship', all the more so when the translator is a machine (Luo & Hyland, 2019, p. 39). This applies in particular to foundation and pre-sessional courses, where international students with a conditional offer have to demonstrate a certain language level before being allowed onto their degree course and transition into the English-speaking university community.

In such a case, using language-assisting software – irrespective of authorship – could be regarded as ‘cheating’ (Mundt & Groves, 2016), compromising academic integrity.

EXPLORATORY STUDY

In our context, Birmingham International Academy (BIA) at the University of Birmingham, Google Translated coursework is increasingly considered to have a negative impact on language learning and assessment, with pre-sessional and foundation students sometimes trying to take the ‘shortcut’ of machine-translation to make the grade. The actual intensity of use of translation tools remains unclear, however; ‘evidence’ thus far being confined to anecdote (students quickly switching screens on their laptops when the teacher approaches), informed guesses (teachers noticing a discrepancy in the quality of home-written essays and in-class coursework) and general rumour.

To get a clearer view of the situation, we conducted an exploratory study on the use of translation tools by international students. Using surveys and in-depth interviews, we focused, first, on the question of whether students actually use language-checking and translation software for their studies. We also wanted to know how they use such tools, whether they believe the results of machine-translation are reliable, and whether they think translation tools support their language learning.

RESEARCH DESIGN

To answer our research questions, we organised a Qualtrix-administered survey amongst international students who had successfully completed a pre-sessional or foundation course at BIA in 2017 or 2018.

Ethical considerations did not allow us to sample our current student population, who still had to go through their language assessment. Via our Virtual Learning Environment, we approached ex-BIA students to participate in the survey; 165 students responded. Ten respondents were removed from the database: two did not sign the consent form for their anonymised data to be used for research and eight specified English as their L1. Roughly 80% of the remaining sample were postgraduate students; 20% were undergraduates. These percentages correspond to those typically found on our pre-sessional and foundation programmes. Over 90% of all respondents had needed an overall IELTS score of 6.0+ for university entry (see Table 1).

Table 1 IELTS entry requirement degree programme (N = 155)

Required level	Number	Percentage
IELTS 5.5	7	4.5
IELTS 6.0	31	20.0
IELTS 6.5	86	55.5
IELTS 7.0	27	17.4
Other	4	2.6
Total	155	100.0

The L1 distribution of the respondents is given in Table 2. Circa 90% of all respondents had an Asian language background, with over three-quarters stating Chinese (Mandarin, Cantonese, Chinese) as their L1. We recoded and aggregated other native languages into Other Asian, Arabic and European. The resulting distribution gives a fair representation of our average BIA student population.

Table 2 Language background (N = 153*)

L1	Number	Percentage
Chinese	117	76.5
Other Asian	17	11.1
Arabic	12	7.8
European	7	4.6
Total	153	100.0

*Two invalid answers: respondents gave their first name as their L1 (Kilsoo, Juoyong).

The rest of our questionnaire (see Appendix 1) focused on the general use and frequency of language checking and translation software, use for academic reading or writing, perceived appropriacy and reliability, and whether respondents thought that translation software could help develop their English language skills. To avoid students feeling they had to 'admit' having used translation software to pass their English entry tests, we did not specifically ask them to reflect on their pre-sessional or foundation course or report on current behaviour, but left this open for interpretation.

The final question asked if students would be willing to participate in an in-depth interview. We selected five positive responses: three Chinese students, one Korean and one Greek student, which reflected the L1 distribution in the survey population. Interviews lasted between 30–60 minutes and, with the interviewee's permission, were recorded on a mobile phone. The structured interviews followed a similar pattern to the survey, with the addition that we asked interviewees to demonstrate the translation software they used, allowing for open-ended answers (for an overview of interview questions, see Appendix 2). Interview

recordings were transcribed in Word, and used to add background information to the answers obtained in the survey.

RESULTS

In answer to the survey question whether students use translation software for their studies, the majority (82.5%) reported that they do so frequently or sometimes (see Table 3). This is in line with studies conducted in the USA, Saudi Arabia, and Spain (e.g., Alhaisoni & Alhaysony, 2017; Clifford et al., 2013; Jolley & Maimone, 2015), which show that translation tools are widely used by international students.

Table 3 Frequency of use of translation software

Do you ever use translation software, such as Google Translate, for your studies (for example, reading or writing in English)?	Number	Percentage
Yes, frequently.	63	40.7
Yes, sometimes.	65	41.9
Yes, but only rarely.	14	9.0
No, I never use this.	13	8.4
Total	155	100.0

Of the translation tools used, Google Translate is by far the most popular. Eighteen students (11%) reported using online dictionaries as a form of translation software, indicating that the dividing line

between these and translation tools can be difficult to draw (see Table 4).

Table 4 Type of translation software used

Translation software used	Number	Percentage
Google Translate	120	73.6
Other: Youdao, Baidu, Papago, Oulou, Netease, Bing	25	15.4
Online dictionaries	18	11.0
Total	163	100.0

Next, we asked how students use translation software for reading and writing in English, focusing first on the direction of translation. Not surprisingly, when reading, most students use translation tools to translate from English into their L1 (see Table 5). Over a quarter of all respondents also translated texts from their L1 into English, perhaps to use sources originally published in the L1. In contrast, for writing, translation usually took place from the L1 into English. A sizeable number also used translation software to translate something written in English into their L1, maybe to check on the accuracy of their writing.

Table 5 Use of translation software combined for reading and writing: direction of translation

When reading for your studies, do use translation software for (tick all that apply):	Number	Percentage
Translating texts from English into your first language	121	65.8
Translating texts from your first language into English	40	21.7
I never use translation software.	23	12.5
Total	184	100.0
When writing in English, do use translation software to (tick all that apply):	Number	Percentage
Translate something you wrote in your first language into English	75	43.6
Translate something you wrote in English into your first language (for instance, to check)	56	32.6
I never use translation software.	41	23.8
Total	172	100.0

As to the intensity of use, we asked whether students machine-translate complete reading texts or only parts of them; multiple answers were allowed. Table 6 demonstrates that, when reading in English, over 70% of respondents reported translating parts of texts into their L1; less than 2% translated entire English texts into their L1. For writing, we asked a similar question. The majority of students reported they machine-translated words, short phrases or individual sentences rather than several sentences together, entire paragraphs or texts (see Table 6). This suggests that students mostly use translation software at a lower, sub-textual level and not for straightforward translation of longer stretches of text.

It has to be noted that these answers could reflect a tendency to give socially acceptable responses, as our in-depth interviews revealed a slightly different picture. Clarity could be lacking about whether using translation software for academic tasks is actually allowed, and respondents may have been reluctant to reveal their reliance on these tools. During the in-depth interviews, interviewees suggested that some international students depend heavily on translation tools for reading and writing. For instance, one student reported:

Normally with [reading] news I would just translate single words, but like some paper thesis ... I would paste the whole passage to get the general idea.

Table 6 Intensity of use of translation software

When reading texts in English (such as newspapers, websites, or academic articles), do you:	Number	Percentage
Translate them completely into your own language using translation software	3	1.9
Read them in English, but translate parts into your own language using translation software	110	71
Only read them in English	42	27.1
Total	155	100.0
When writing in English, do you use translation software for (tick all that apply):	Number	Percentage
Words or short phrases	114	52.5
Individual sentences	54	24.9
Several sentences together or paragraphs	24	11.1
Entire texts	5	2.3
I never use translation software	20	9.2
Total	217	100.0

Another interviewee said:

Most of my friends ... just translate this whole article into Chinese and they will just read the Chinese.

The survey data on whether students consider it appropriate to use translation tools seem to confirm they believe this is not really allowed (again, multiple answers were possible). As Table 7 reveals, most students (62% and 61% of all responses respectively) thought it was appropriate to use translation tools for reading and writing parts of texts; only a small percentage (7.7% and 2.6% of all responses given) thought it was appropriate to translate entire texts. Twelve students thought it was not appropriate at all to use translation tools. These were the same students who initially reported never to use translation software (although, interestingly, in the questions on actual use, some of them did state they use translation software to read or write (parts of) texts).

Our respondents also expressed some reservations about the reliability of translation tools. Table 8 shows that nearly 42% thought that translation tools were somewhat or very unreliable – although this does seem to deter students from actually using them. It could well be that translation software is used as a form of language support and, whilst recognising that the results are not perfect, students think that the accuracy of machine-translated text is higher than what they could produce independently. As our interviewees commented:

Most students don't trust themselves when they start or are beginning learning English; when using that programme, I feel more confidence; I trust (GT) more than I.

Another interviewee also observed:

Students in pre-sessional course often used GT to translate everything, but now some of my friends they are used to reading in English.

Table 7 Opinion on appropriacy of using translation software

Do you think it is appropriate to use translation software for your studies? (Tick all that apply.)	Number	Percentage
Yes, for reading parts of texts	96	35.7
Yes, for reading entire texts	12	4.5
Yes, for writing words or short phrases	94	34.9
Yes, for writing individual sentences	35	13.0
Yes, for writing several sentences together or paragraphs	16	6.0
Yes, for writing entire texts	4	1.5
No, it is not appropriate	12	4.4
Total	269	100.0

which suggests that translation software might be useful as a scaffolding and confidence-building tool during earlier phases of language development.

Table 8 Perceived reliability of translation software

How reliable (producing good texts) do you think translation software is?	Number	Percentage
Very reliable	5	3.2
Somewhat reliable	87	56.2
Somewhat unreliable	60	38.7
Very unreliable	3	1.9
Total	155	100.0

This being said, in the survey, opinion was split as to whether translation tools actually help or hinder English language development. Over half of all respondents stated that translation tools can help people improve their English; the rest thought they do not help, as students become too reliant on them (see Table 9). As one interviewee commented:

It helps me understand the article but I think for improving my English I have to memorise the words I don't understand ... so I think if you just translate the whole passage I don't think it will be very helpful to improve your English.

Table 9 Opinion on whether translation software can help to develop language

Do you think translation software can help people develop their English skills?	Number	Percentage
Yes, it can help people improve their English.	87	56.1
No, because people become too reliant on it.	68	43.9
Total	155	100.0

DISCUSSION AND CONCLUSION

This study aimed to assess whether and how former pre-sessional and foundation students at the University of Birmingham use translation tools to assist their studies. The results show that most students use translation software to some extent. Most respondents reported translating only short stretches of texts (words, phrases or sentences) when reading and writing in English. These could be socially acceptable answers, however, as most students think it is not appropriate to use machine translation for reading or producing entire texts. Students were also critical of the reliability of machine translation, although our results indicate that they believe translation tools could support the development of – certain phases in – language development.

It is evident that some ambiguity exists regarding students' understanding of the appropriacy of using translation tools, which poses questions for policy guidelines

and communication with students, assessments and teaching and learning strategies. Although most students consider it inappropriate to machine-translate entire reading or writing texts, they might do so in secret. As our interviewees reported:

Sometimes if I translate ... my English teacher don't know about it; even if I know that something is forbidden and it may help me, I will use it.

This confirms the findings of previous research (e.g., Alhaisoni & Alhaysony, 2017) that students may associate overuse of translation tools with academic dishonesty, but are reliant on them to an extent anyhow. The results of our study and those of other researchers (Maulidiya, 2018) also indicate that, despite students recognising the reliability issues associated with translation software, they trust the accuracy of machine translation more than their own abilities.

The difficulty in policing or controlling the use of translation tools – except from adjusting assessments, such as moving away from ‘take home’ writing tasks towards timed reading into writing exams – suggests that a sensible guideline for academic departments and EAP tutors may be just to acknowledge the situation, and encourage judicious use, rather than try to restrict use of these tools. Our results show that students themselves recognise that overreliance is undesirable. Ducar and Schocket (2018) suggest entering into a dialogue with students, with teachers showing the limitations of translation tools to encourage a discerning attitude towards these resources. Alhaisoni and Alhaysony (2017) and Jolley and Maimone (2015) also note that students generally receive hardly any training on utilising translation software, but would appreciate learning about strategies for effective use.

Teaching could also focus on what translation tools cannot do. For instance, our interviewees recognised certain limits for academic coursework.

The main problem for the translation outcome will be the cohesion issues; I know some people will do it, but even if it's allowed, the flow of the essay won't be very coherent if they use GT.

This echoes the observation made by Groves and Mundt (2015) that translation tools can only translate (stretches of) text, but cannot provide stylistic features, such as academic register or other specialist genre practices. As such, in addition to word and sentence-level language, EAP tutors may wish to focus more heavily on teaching discourse features. After all, their students' target is not just reaching the required level of English proficiency, but also to develop the linguistic communicative competence to participate successfully in the academic community (Hyland, 2018).

LIMITATIONS AND IMPLICATIONS FOR FUTURE STUDIES

Survey and interview responses are potentially limited by participants' lack of English proficiency and understanding of the questions asked. As noted, there could also have been a tendency to give socially acceptable answers on what seems a slightly taboo topic, and on various survey questions the number answering ‘I never use translation software’ fluctuated. In addition, the question whether translation tools help to develop English language skills only allowed for the negative response that students can become too reliant on it, not that they might simply find it useless. As a final point, students did not always distinguish between translation tools and online dictionaries.

Future research may focus on teaching and learning strategies for using translation software as a constructive scaffolding tool, for instance, to practice proofreading or post-editing a machine-produced text for cohesion. Teaching could also concentrate on building students' confidence in their own ability, as one of the problems seems

to be that many students perceive machine-translated writing results as of a higher quality than the language they themselves produce. Students might potentially employ machine translation as an aid, but should reflect critically whether this is really necessary and prevents or enhances their long-term academic English development.

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APPENDIX I SURVEY QUESTIONS

What is your first language?

What is your (intended) degree programme?

What was the language entry requirement for your degree programme?

- a) IELTS 5.5
- b) IELTS 6.0
- c) IELTS 6.5
- d) IELTS 7.0
- e) Other, namely ...

Are you an undergraduate (UG) or a postgraduate (PG) student?

What year of your studies at university are you in?

- a) First year
- b) Second year
- c) Third year
- d) Fourth year
- e) Fifth year or higher

Have you ever used language-checking software, such as Grammarly, for writing in English?

- a) Yes
- b) No

If yes, what was the language-checking software you used?

Do you ever use translation software, such as Google Translate, for your studies (for example, reading or writing in English)?

- a) Yes, frequently
- b) Yes, sometimes
- c) Yes, but only rarely
- d) No, I never use this

If yes, what is the translation software you use?

When reading for your studies, do you use translation software for (tick all that apply):

- a) Translating texts from your first language into English
- b) Translating texts from English into your first language
- c) I never use translation software

When reading texts in English (such as newspapers, websites, or academic articles), do you:

- a) Translate them completely into your own language using translation software
- b) Read them in English, but translate parts into your own language using translation software
- c) Only read them in English

When writing in English, do you use translation software to (tick all that apply):

- a) Translate something you wrote in your first language into English
- b) Translate something you wrote in English into your first language (for instance, to check)
- c) I never use translation software.

When writing in English, do you use translation software for (tick all that apply):

- a) Words or short phrases
- b) Individual sentences
- c) Several sentences together or paragraphs
- d) Entire texts
- e) I never use translation software.

How reliable (producing good texts) do you think translation software is?

- a) Very reliable
- b) Somewhat reliable
- c) Somewhat unreliable
- d) Very unreliable

Do you think translation software can help people develop their English skills?

- a) Yes, it can help people improve their English.
- b) No, because people become too reliant on it.

Do you think it is appropriate to use translation software for your studies? (Tick all that apply.)

- a) Yes, for reading parts of texts.
- b) Yes, for reading entire texts.
- c) Yes, for writing words or short phrases.
- d) Yes, for writing individual sentences.
- e) Yes, for writing several sentences together or paragraphs.
- f) Yes, for writing entire texts.
- g) No, it is not appropriate.

APPENDIX 2 INTERVIEW QUESTIONS

What is your first language?

What is your (intended) degree programme?

What was the language entry requirement for your degree programme?

- a) IELTS 5.5
- b) IELTS 6.0
- c) IELTS 6.5
- d) IELTS 7.0
- e) Other, namely ...

Are you an Undergraduate (UG) or a Postgraduate (PG) student?

What year of your studies at university are you in?

- a) First year
- b) Second year
- c) Third year
- d) Fourth year
- e) Fifth year or higher

I'll now ask you some questions about if and how you use technology for your studies.

Have you ever used language checking software, such as Grammarly, for writing in English?

- a) Yes
- b) No

If yes, what was the language checking software you used? Is that the paid or free version? Can you show me what you use and how it works?

I'm now going to ask some questions about using translation software. Do you ever use translation software, such as Google Translate, for your studies (for example, reading or writing in English)?

- a) Yes, frequently
- b) Yes, sometimes
- c) Yes, but only rarely
- d) No, I never use this

If yes, what is the translation software you use? Is that the paid or free version?

When reading for your studies, do you use translation software for (tick all that apply):

- a) Translating texts from your first language into English
- b) Translating texts from English into your first language
- c) I never use translation software.

When reading texts in English (such as newspapers, websites, or academic articles), do you:

- a) Translate them completely into your own language using translation software
- b) Read them in English, but translate parts into your own language using translation software
- c) Only read them in English

Can you show me what you use and how that works?

When writing in English, do you use translation software to (tick all that apply):

- a) Translate something you wrote in your first language into English
- b) Translate something you wrote in English into your first language (for instance, to check)
- c) I never use translation software.

When writing in English, do you use translation software for (tick all that apply):

- a) Words or short phrases
- b) Individual sentences
- c) Several sentences together or paragraphs
- d) Entire texts
- e) I never use translation software

Is that the paid or free version?

Can you show me what you use and how it works??

How reliable (producing good texts) do you think translation software is?

- a) Very reliable
- b) Somewhat reliable
- c) Somewhat unreliable
- d) Very unreliable

Why do you think it is (not) (that) reliable?

Do you think translation software can help people develop their English skills?

- a) Yes, it can help people improve their English.
- b) No, because people become too reliant on it.

How can it help students develop their English?

Do you think it is appropriate to use translation software for your studies? (Tick all that apply.)

- a) Yes, for reading parts of texts
- b) Yes, for reading entire texts
- c) Yes, for writing words or short phrases
- d) Yes, for writing individual sentences
- e) Yes, for writing several sentences together or paragraphs
- f) Yes, for writing entire texts
- g) No, it is not appropriate