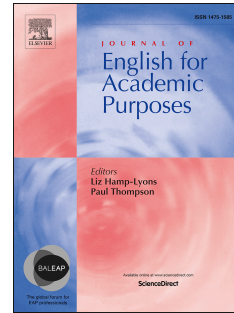


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Nursing and midwifery students' ethical views on the acceptability of using AI machine translation software to write university assignments: A deficit-oriented or translanguaging perspective?

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Title

Nursing and midwifery students' ethical views on the acceptability of using AI machine translation software to write university assignments: A deficit-oriented or translanguaging perspective?

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Competing interest statement

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Title

Nursing and midwifery students' ethical views on the acceptability of using AI machine translation software to write university assignments: A deficit-oriented or translanguaging perspective?

Abstract

This paper focuses on tertiary English as an additional language (EAL) students' ethical choices, and the factors impacting on them, when deciding whether to engage with artificially-intelligent (AI) machine translation (MT) tools for the writing of university assignments. It also investigates how student responses align with either deficit-oriented or translanguaging theoretical perspectives. Via semi-structured interviews, the voices of 23 EAL nursing and midwifery students indicate an array of ethical positions which are based on three key areas of consideration; 1) ownership of language and ideas; 2) fairness and respect; and 3) personal growth. The study highlights the scalar, strategic and dynamic nature of students' ethical decisions and shows that questions of ethicality tap into individual, social and institutional constructs of fairness and respect, skills recognition, lifelong learning and language dominion. The findings also indicate that discussions of fairness should focus not only on differences between non-EAL and EAL students, but also inequalities within EAL cohorts. Student responses provide evidence of both deficit-oriented and translanguaging perspectives. The researchers call for universities to create clear policies concerning use of MT that recognise the levels of reflection that students engage in when writing their assignments and value the full linguistic repertoires that students bring to global educational settings.

Keywords

translanguaging, machine translation, academic integrity, artificial intelligence, EAL

Introduction

This study investigates English as an additional language (EAL) students' ethical views on the acceptability of using artificially-intelligent (AI) machine translation tools (MT) for the writing of nursing and midwifery assignments in undergraduate and postgraduate nursing education in a large Australian university. It also explores the factors that impact on their decision to use MT for writing assignments and the ways in which their responses can be interpreted as deficit-oriented or translanguaging approaches to assignment writing.

For the purposes of this research, 'MT' is defined as technology that enables computer-generated translation of text or speech from one language to another and 'assignment writing' refers to any texts that are required to be submitted for summative assessment as part of students' course requirements. 'Ethics' is used as an umbrella term for moral principles and concerns, while 'academic integrity' describes a narrower set of ethical issues conventionally addressed in university policies and training, such as plagiarism and cheating.

This research is explicitly positioned as critical of the deficit-oriented treatment of EAL students (see Ryan, 2020; Tardy & Whittig, 2017) and interpretation of the data aligns with translanguaging approaches which encourage students to draw on their full linguistic repertoires (e.g., García & Kleifgen, 2020; Paulsrud et al., 2017; Tai & Dai, 2023; Van Viegen & Zappa-Hollman, 2020). As opposed to deficit-oriented approaches that position multilingual students who use MT as outsourcing learning or undermining language acquisition, this study seeks to reveal a counter-discourse that highlights students' use of MT as resources to communicate meaning (see Paterson,

2023), which aligns with translanguaging pedagogical practices. By highlighting the two opposing discourses, the study provides a foundation to address the fact that the ethical use of MT and other newly available technologies remains insufficiently addressed by university policies.

The recently released interface ChatGPT has garnered substantial media attention due to concerns about AI-assisted cheating (e.g. Davis, 2023; Hsu, 2023). Although critiqued by some scholars (e.g. Anson, 2022), the widespread panic regarding AI as enabling academic misconduct highlights the importance of investigating the students' ethical perceptions towards incorporating technology into their studies. This includes AI-based MT tools such as Google Translate which are already widely used (e.g. Dorst et al., 2022; Kilmova et al., 2022). As discussed below, although research is beginning to explore interactions with MT as a productive translanguaging resource (Beiler & Dewilde, 2020; Chen et al., 2019; Heugh et al., 2022; Kelly & Hou, 2022; Tsai, 2022; Vogel et al., 2018; Zhou et al., 2022), little is known about university students' ethical perceptions of using MT for writing assignments, especially beyond language acquisition and translation studies (e.g. Alhaisoni & Alhaysony, 2017; Ata & Debreli, 2021; Jolley & Maimone, 2015; Liu et al., 2022).

In the context of uncertainties surrounding the appropriateness of technologically assisted writing, scholars have called for universities to implement clear policies and guidelines, particularly in relation to MT (e.g., Ata & Debreli, 2021; Dinneen, 2021; Groves & Mundt, 2021; Heugh et al., 2022; Jolley & Maimone, 2015; Paterson, 2023). This includes calls for MT literacy training for both students and academics (Bowker, 2020a, 2020b, 2021; Delorme Benites, 2021; Dorst et al., 2022; Loock & Léchauguette, 2021). A clearer understanding of all stakeholders' views on the use of MT to assist academic writing (including students, educators, and administrators) is a key step in developing such responses (Mundt & Groves, 2016). This study focuses on the perspectives and decision-making of students, while the views of other stakeholders will be explored in future research. Additionally, the paper argues that the routine linking of MT use with plagiarism in some instances (e.g. Dinneen, 2021) can be challenged by translanguaging perspectives, which, as discussed under 'Translanguaging in higher education', considers MT not as a means of cheating but a resource allowing EAL students to access all of their communicative resources, including their multilingual competencies and literacy skills. Translanguaging approaches to post-secondary education therefore afford an "asset-oriented lens to the plurilingual competencies learners possess, rather than focusing on abilities learners are perceived to lack" (Van Viegen & Zappa-Hollman, 2020, p. 174).

Translanguaging in higher education

Translanguaging in both research and pedagogy entails a political orientation. It seeks to challenge the underlying ideologies which have long shaped language attitudes, policies, teaching, and learning (Li, 2022), including definitions of named language(s) (Otheguy, García & Reid, 2015) conceptualisations of bilingualism (García & Li, 2014) and deficit-oriented discourses concerning multilingual speakers in English as language of instruction environments (Lin, 2020). In the context of international tertiary education (Grieve, Ta & Ross, 2022), translanguaging is a theory of language practice and cognition according to which all students, regardless of their language backgrounds draw not on distinct linguistic codes (e.g. languages), but on a unified, integrated, and dynamic repertoire of communicative resources to make meaning (Beres, 2015; García & Kleifgen, 2020; García & Li, 2014; García & Lin, 2017; Li, 2018; Vogel & García, 2017). Translanguaging theory frames 'named languages' as ideologically-mediated social constructs and rejects the notion that language can be categorised into context-free and discrete linguistic systems (Otheguy et al., 2015).

Translanguaging policies and pedagogies seek to facilitate practices in which “all students' whole linguistic repertoires are invited, included, recognised and accepted in the learning act” (Paulsrud et al., 2017, p. 16). Individuals engage in ‘translingual practices’ by, for example, incorporating elements associated with different so-called languages along with other local and semiotic resources, e.g. visual and embodied communication, interactions with artefacts and interlocutors (Canagarajah, 2012, 2013, 2018). Of particular interest for this study, though only recently gaining attention among researchers (see Tzirides, 2021), is the role of technology such as MT in allowing students to employ all of their non-English language resources in their tertiary education, thus enabling and engaging in translanguaging pedagogy and practice.

According to recent studies that discuss translanguaging assisted by MT software (Beiler & Dewilde, 2020; Chen et al., 2019; Heugh et al., 2022; Kelly & Hou, 2022; Tsai, 2022; Vogel et al., 2018; Zhou et al., 2022), a student’s interactions with MT constitute an embodied resource whereby “the product and processes of the bilingual learner-machine translation assemblage are valid and valuable classroom biliteracy instances, and that used appropriately, they can be seen as part of translanguaging” (Vogel et al., 2018, p. 103). In line with Vogel et al. (2018), who emphasise the role of diverse linguistic and non-linguistic resources for communication, in this study MT is conceptualised as part of students' diverse repertoires for communicating, rather than merely auxiliary to them.

MT use has also been found to combine with other resources (e.g. other digital tools, interaction) to aid students' additional language writing (Beiler & Dewilde, 2020). As part of their translanguaging practices, learners can apply a range of skills in their application of MT, including post-editing and critically evaluating MT output (Kelly & Hou, 2022; Zhou et al., 2022). These practices result not only in improved writing due to MT-aided revision (Chen et al., 2019; Tsai, 2022), but also increased access to, and sharing of, knowledge (Heugh et al. 2022).

Student use of machine translation tools

The widespread availability of MT and other online language assistance tools (e.g. online dictionaries, and word processing software), mean that linguistically diverse EAL students can interact with a myriad of technologies when writing for academic purposes (Jeanjaroonsri, 2023; Moore et al., 2016). Of these tools, use of MT in university language studies contexts has, thus far, received the most research attention (e.g., Briggs, 2018; Correa, 2014; Garcia & Pena, 2011).

Often alongside other digital tools (Jeanjaroonsri, 2023; Kennedy, 2021), MT (e.g. Google Translate, DeepL) is widely and frequently used in higher education (Briggs, 2018; Clifford et al., 2013; Liu et al., 2022; Niño, 2020), potentially even if prohibited (Heugh et al., 2022; O’Neill, 2019). Although issues with using MT, such as inaccurate output or over-reliance, are often noted (e.g. Briggs, 2018; O’Neill, 2019; Rangsarittikun, 2022), student attitudes appear to be broadly positive towards the technology (e.g. Bahri & Mahadi, 2016; Delorme Benites et al., 2021). This is consistent with views of contemporary students as ‘app-centric’ learners (Ashford, 2021) and translanguaging perspectives that interpret student interactions with artefacts in their spatial repertoires as a means of allowing them to access diverse semiotic resources (Canagarajah, 2018; Pennycook, 2017; Pennycook & Otsuji, 2014).

Academic integrity and MT

Academic dishonesty is a recurrent theme in the research on MT in language education (see Jolley & Maimone, 2022), with some researchers framing its use as cheating (e.g. Correa, 2014; Harris, 2010; Steding, 2009) and others viewing it as a tool that can be productively incorporated into language learning (e.g. Jolley & Maimone, 2015; Knowles, 2022; Lee & Briggs, 2021). Illustrating concerns regarding academic integrity, Mundt and Groves (2016) suggest that, regardless of the focus of their studies, any student submitting MT-assisted work “is committing an offence in the sense that the work they are submitting is theirs, but could not be truly said to be theirs in totality” (p. 395). Similarly, in the context of Direct Entry English Programs, Dinneen (2021) positions MT (and paraphrasing tools) as problems for academic integrity, describing students’ writing as “the result of an algorithm” rather than their “own cognition” (p. 41). However, Prentice and Kinden (2018) consider use of MT to be “poor academic practice”, but not necessarily plagiarism (p. 13), whereas use of online paraphrasing tools to ‘spin’ uncited source material (i.e. disguising text from plagiarism detection tools through word substitution) is a clear instance of academic dishonesty.

Beyond academic misconduct, scholars have raised concerns about the use of MT in universities, such as negative impacts on the legitimacy of credentials and graduates’ preparedness for the workforce (Groves & Mundt, 2021; Klekovkina & Denié-Higney, 2022). This highlights the importance of expanding discussions about student use of MT at university beyond academic integrity to address other ethical issues, including linguistic gatekeeping and student equity (see Paterson, 2022).

Student academic integrity perspectives

Limited research is available on university students’ ethicality judgements towards MTs and is primarily drawn from the use of MT in language acquisition and translation studies contexts (exceptions include de Vries & Groves, 2022; Dorst et al., 2022). Focusing on survey results from a cohort of 37 students studying Spanish at the University of Manchester, Niño (2020) found that 90.9% of the participants did not think MT is a plagiarism-inducing technology, although some students reported a preference for other language assistance tools, such as online dictionaries and verb conjugation tools. Comparatively, White and Heidrich (2013) found that some students’ reported feeling that they were cheating when using MT for a German as a foreign language writing task, despite having permission to do so. Liu et al. (2022) found that few translation studies students in their study (4.8% of undergraduates and 12.8% of post graduates) agreed that there are no ethical issues involved in the use of MT for assignments, while a majority thought that the extent of modification of MT output affects ethicality.

Language learner attitudes to MT have been found to be reliant on two key variables: length of translated segment and task type. Students perceive shorter translations of words or phrases to be more ethical than longer segments or full texts (Alhaisoni & Alhaysony, 2017; Ata & Debreli, 2021; Jolley & Maimone, 2015). Regarding the type of task, more than half of the language learners in Ata and Debreli (2021) considered it ethical to use MT for reading (54%), writing (53%), grammar (52%), and presentation (56%) tasks. In Alhaisoni and Alhaysony (2017) more students considered it ethical to use MT in writing assignments than for presentations, workbook/lab, or translation assignments.

The situation in non-language-focused disciplinary study areas is less well documented and is predominantly based on questionnaires (e.g. Dorst et al., 2022; Kim & LaBianca, 2018) rather than interview and other qualitative data (for an exception, see Heugh et al., 2022). The few existing studies demonstrate some similarity to the above findings in language acquisition and translation programs. In Kim and LaBianca (2018), a sample of EAL and non-EAL international students rated

word/phrase level translations as more ethical than sentence/paragraph level translations. Similarly, de Vries and Groves (2022) report that EAL undergraduate and postgraduate international students consider writing words or short phrases with MT more appropriate than writing for longer segments of text. The humanities students sampled in Dorst et al. (2022) likewise appeared to be sensitive to the size of translated segment, as well as the context of use.

Overall, available research suggests that researchers, language learners and students from non-language-focused disciplines have mixed and often context-specific attitudes towards the ethicality of using MT for academic writing. Research also highlights that students use MT selectively rather than uncritically and there is uncertainty as to whether translation of one's own writing can be considered a form of fraud or plagiarism that is separate from academic integrity focusing on source materials (Heugh et al., 2022).

This study is motivated by key gaps in current understanding about international and/or EAL students' ethicality judgments towards using MT to write their assignments. While existing literature suggests that students report varied and context-specific attitudes towards the ethics of using MT in language acquisition and translation studies, perceptions of MT in other disciplinary areas remain largely unknown and show mixed results. A growing body of research also highlights the benefits of applying translanguaging perspectives to the study of MT (e.g. Beiler & Dewilde, 2020; Tsai, 2022; Vogel et al., 2018; Zhou et al., 2022), which can provide a counter-discourse to deficit-focused or problem-centric attitudes to international education. There is also a clear need for methodological variation, with the majority of studies focusing on students' ethicality judgments relying heavily on questionnaire data (e.g. Ata & Debrel, 2021; Jolley & Maimone, 2015; but see Heugh et al., 2022). This calls for use of qualitative data collection methods such as semi-structured interviews to enable detailed and nuanced exploration of student experiences and beliefs.

Aims of this study

This study aims to explore the following research questions:

1. What are EAL nursing and midwifery students' views on the ethics of using MT for the writing of university assignments?
2. What factors do EAL nursing and midwifery students take into account when deciding whether to use MTs for their university assignments?
3. How do students' views on the use of MT align with deficit-oriented and translanguaging pedagogical perspectives?

Research paradigm, theoretical perspectives and reflexivity

This qualitative research uses a critical interpretivist paradigmatic perspective, whereby realities are seen to be socially constructed and, therefore, subject to change (Kivunja & Kuyini, 2017). Although numbers are provided for transparency, from an interpretivist qualitative perspective the voices of all students in this study are considered of equal value (Tenny et al., 2022), regardless of the length of interview or the number of codes generated per speaker. Therefore, the results are reported according to concepts and perspectives presented in a large number of extracts.

Linking directly with the researchers' explicit critical paradigm, a translanguaging perspective is used to analyse and interpret the data (especially in response to research question 3). Translanguaging is inherently political because it questions and re-describes assumptions about the boundaries between

languages and normative language practices (Li, 2022; Pennycook, 2019). It is used in this paper to help shift university policy decision-making and societal discussions from a deficit-oriented perspective of international EAL student education (Ryan, 2020) to conceptualising a student's multiple languages as a semiotic resource on which the student might draw in an English-dominant academic language learning environment (Li, 2022).

Method

Instruments

Audio-recorded semi-structured interviews with EAL students enrolled in Bachelor of Nursing and Master of Nursing and Midwifery at an Australian university (n = 23) were conducted either by ZOOM (n = 11) or in-person (n = 12). They were, on average, 25 minutes in length (13 - 60 mins). Topic areas for questions were divided into students' use of MT and other language assistance software (not reported in this paper) and their views on the ethics of using MT in tertiary assignment writings (see analysis section). Semi-structured interviewing allowed the researchers to collect data that was directly comparable to questions asked by previous research via surveys, while at the same time, providing participants the flexibility to discuss their views and the factors that impact on them without being prompted by the researcher.

Participants

In response to the above-mentioned gaps, students enrolled in a non-language focused professional degree and with a high enrolment of multilingual learners were intentionally recruited. Nursing and midwifery students were recruited due to nursing being the biggest clinical workforce in Australia (Australian Institute of Health and Welfare, 2022), with over 40% of the workforce born overseas (Australian Bureau of Statistics, 2022). These numbers are reflected in international university student enrolments, whereby 39,636 students with a Subclass (500) student visa were studying a health-related course in 2021 (Australian Department of Education, 2022).

The criteria for inclusion were:

- enrolment in a nursing or nursing and midwifery degree
- self-identification as being a writer of English as an additional language

In response to a recruitment email sent to students enrolled in a Bachelor of Nursing, Bachelor of Nursing and Midwifery and Master of Nursing Practice, 1 domestic and 22 international students from a range of year levels self-selected to participate in the semi-structured interviews (see Table 1). In response to demographic questions in an anonymous survey, three of the participants identified as male and 20 as female. They were aged between 18 and 36 years (average 24.21 years). The majority of students identified as nationals of Mainland China, Hong Kong and/or Taiwan (n =15), with one of them holding dual citizenship in Hong Kong and Canada. In addition to EAL, these students had formal schooling in Cantonese and Mandarin. Two participants were Farsi speakers with Iranian nationalities with formal education in Farsi and English. The remaining students identified as nationals from Indonesia, Vietnam, Fiji, Kenya, Korea, and Nigeria with formal primary and secondary schooling in Bahasa, Vietnamese, Swahili, Korean, Igbo and English. Years of learning English as an additional language ranged between 4 and 30 years (average 14.6 years), with two students attending primary and secondary school entirely in English. Fifteen of the 23 participants completed an IELTS academic or PTE Academic language test in order to enrol in a tertiary nursing degree in Australia.

Table 1 Interview participant course and year of study

Course	n-size	Year level	No.
Bachelor of Nursing (BN) Bachelor of Nursing and Midwifery (BNM)	n = 17	Year 1	7
		Year 2	9
		Year 3	1
Master of Nursing Practice (MNP)	n = 6	Year 1	5
		Year 2	1

Analysis

The recorded interviews were transcribed using a paid automated online software service (*transcribe by wReally*) and were then checked for accuracy. Ritchie and Spencer's (2014) framework analysis for qualitative data analysis was followed to ensure systematic and flexible analysis of qualitative data, whereby the researchers individually familiarised themselves with the data, met to discuss their interpretations and, based on the team discussions and individual notes, created a framework for thematic analysis.

For this paper, any content relating to the topic of ethics was identified and then coded as per the process described in the previous paragraph. Due to the semi-structured nature of the interviews, the identified extracts were either spontaneously produced by the participant throughout the interviews or elicited in response to questions such as (but not limited to):

- How ethical do you think it is to use machine translation for writing your assignments?
- What are your thoughts on the ethics of using machine translation for writing the whole assignment / a paragraph / a sentence or phrase / individual words or phrases?

A total of 75 extracts for first order themes and sub-themes were elaborated in NVIVO based on further discussions and interpretations of the coded data (see Table 2) and the final coded data set represents quotes from all 23 participants.

Table 2 Number of students* who addressed first order themes and sub-themes

Level 1	Level 2
Ownership of ideas (n = 16)	Own language (n = 8)
	Not own language (n = 9)
Fairness and respect (n = 13)	Other students (n = 10)
	Institutions & society (n = 8)

Personal growth (n = 15)	Work readiness (n = 3)
	Language learning (n = 14)

*Level 1 and Level 2 numbers may not match as some students mentioned both of the Level 2 concepts

In keeping with the critical interpretivist design of this paper and to answer the third research question concerning deficit-oriented and translanguaging perspectives, once the codes and themes in the data had been identified, the researchers met to discuss alignment of the students' ethical views with translanguaging or deficit-oriented educational ideologies.

The study was granted ethics approval by the [Institution Name] University Human Research Ethics Committee (Project No. 26871). To ensure the safety and confidentiality of participants, participant numbers are used for all students and the research data and copies of informed consent forms have been retained electronically on a secure network.

Results

Analysis of interviews revealed three key themes relating to the acceptability of using MT for writing assignments: 1) ownership of ideas, 2) fairness and respect and 3) ethics of personal growth. Within all three themes, student quotes were deemed to reflect a mix of deficit-oriented and translanguaging attitudes towards using MT for writing their assignments.

Ownership of ideas

Ownership of ideas played a key role in determining students' ethical stance towards use of MT, with eight of 16 students positioning themselves as the sole proprietors of their thoughts and language(s). All students considered language as the tool through which knowledge can be expressed. However, student's points of view differed in terms of the degree to which language and knowledge are inextricable and/or a loss of ownership occurs when MT is used.

As exemplified in Extract 1, participants explained that, regardless of the language from which a concept originates, as long as they produced the text in the first instance, the content and words legitimately belong to them. Using this logic, which aligns with a translanguaging pedagogical approach, they believed that use of MT does not contravene university plagiarism policies. Such students articulated a separation between content knowledge and language by emphasizing that the use of MT does not fundamentally change the depth of knowledge or quality of the text.

Extract 1 - Participant 23

I feel it's ok because it's still their own work? ... just write in different language first and then translate it? But / and if they didn't use other people's work, I think it's it's fine. (P23)

An opposing position taken by nine students was that language and knowledge are inextricably combined and therefore use of MT is unethical and results in loss of ownership of both knowledge and language. For some of these students, ethicality was not seen as dichotomous, but was framed as scalar: the greater the "chunk of text" translated, the less ethical it becomes. As shown in Extract 2,

this means that use of MT as a dictionary would be acceptable, however using it to translate text chunks at phrase level and above (e.g. sentences and paragraphs) was considered unethical because both the language and the idea would no longer be owned by the original writer.

Extract 2 - Participant 5

But for translation, usually I would prefer like translating certain keywords or some kinds of words that you don't understand instead of a whole chunk of text. Because if you translate, the whole chunk of text, it's means like those words is not coming from you, from your idea, ... and it's basically following what the internet gave you. (P5)

Students also expressed a non-scalar view whereby any use of MT equals loss of ownership. From this position, ideas and language were seen to be inextricably linked at all levels and language skills that are not in the target language were deemed irrelevant to academic writing. These students indicated that all stages of academic writing have to happen exclusively in the English language, arguing that use of MT or any other “external tool” (Extract 3) from the word level upwards is unethical. They explained that this includes bilingual dictionaries, but not monolingual English dictionaries or grammar correction software as they believed the initial text must be produced in English. However, in Extract 3, Participant 13's use of tag-questions (“It is, right?”) and downgrading of an emphatic “definitely” to an epistemic marker of uncertainty “I think” concurrently indicates some hesitation in this position.

Extract 3 - Participant 13

So, if I type something in Chinese and I translated it into English, with Google Translation? Oh, that's definitely academic integrity violation. It is, right? Because you didn't write your own assignment in English. I think it is a violation ...it's not really your work in English, right? You just wrote in your mother tongue, or your mother language, and you used like an external tool to basically translate your work. So, I just don't think you technically wrote that piece if you use the translation services. (P13)

By creating a separation between English and any other languages, the views expressed by Participant 13 and the other eight students tend to align with a deficit-oriented approach, whereby the possibly extensive non-English components of their linguistic repertoires are not seen as a valuable resource for learning.

While this paper focuses on MT use, it is important to note that the data indicated that some students expressed a distinction between ethicality of use depending on whether a language assistance tool provides monolingual or multilingual support (Extracts 3 and 4). In Extract 4, Participant 16 adhered to the idea that the degree of ethicality of using MT is scalar (i.e. dependent on the length of text being translated), but external tools that focus exclusively on English grammar and spelling correction were clearly marked as ethical. This idea links to the second theme of fairness, whereby those tools that focus on the “minor problems” of English grammar and spelling are equally accessible and valuable to both EAL and non-EAL speakers, whereas MT is of exclusive benefit to EAL speakers.

Extract 4 - Participant 16

I think these are two different topics. Yeah, like fixing the grammar and spelling and translating the whole passage are two different topics ... Because one is about fixing minor

problems like spotting errors. Yeah, and the other is, the other is just, the other is not. The other is not really your own words. (P16)

Fairness and respect

Thirteen of the 23 students indicated that fairness in comparison to other EAL and non-EAL speakers and respect towards institutions and society played a key role in developing an ethical stance towards use of MT. When comparing themselves to non-EAL speakers, they indicated that use of MT levels the playing field in academic writing by enabling them to enhance the clarity of their ideas, save time and organise their thoughts. However, in comparison to other EAL students, their use of MT may exacerbate issues of unfairness.

Fairness - other students

A key factor in ethical positioning is the high-stakes but perceived uneven playing field in which EAL and non-EAL students are performing. Ten of the 13 students indicated that an uneven playing field has been created due to their self-perceived limited linguistic resources (i.e. deficits) in English, which not only hinders them from expressing themselves satisfactorily when writing assignments, but restricts their freedom of choice and “free will” (Extract 5). For example, in Extract 5, Participant 9 indicated the sense of freedom they have when writing in Korean is frustratingly restricted when writing in English and use of MT is one of the few tools they have at their disposal to regain the same degree of independence as those with access to this broad vocabulary would enjoy.

Extract 5 - Participant 9

I think I'm / that's not my free will. There's no free will in writing the assignment these days because it's not because it's just not in / not in Korea. I don't have my free will in writing these days, that's kind of frustrating. (P9)

Participant 3 (Extract 6) describes another aspect of free will in terms of freedom to choose which language assistance tools best suit the student's language and learning needs. They equate their free choice to use MT as a bilingual dictionary to that of a non-EAL speaker's choice to use a monolingual dictionary. They relate ethical positioning to a sense of independence and agency in which both EAL and non-EAL students “can do what they want” in order to complete their required assessments.

Extract 6 - Participant 3

if you're not using it, like Australians are at an advantage, so like it doesn't kind of make sense. I, it's ethical [...] even if I knew actual Australians were using, English to English dictionary and I was able to use Persian to English and English to English at the same time . I'm cool with it. They can do what they want. I can do what I want at that. (P3)

These students indicated that non-EAL speakers hold a privileged position simply by virtue of the fact that they have been raised with English as one of their first languages (Extract 7) and argued that MT provides EAL students the opportunity to equalise the advantages of having had extensive prior socialisation and exposure to the English language. From a translanguaging perspective, these opinions indicate that EAL students are operating in a deficit-oriented educational environment in

which only English language skills are valued, but MT provides an opportunity to move to a translanguaging pedagogical model, where all language skills are able to be accessed for assessment writing.

Extract 7 - Participant 22

if you are like an international student like me and sometime it is unfair compared to the local students because you don't have the privilege of having English as your first language. (P22)

While some of these students adhered to a deficit-oriented view of their own abilities and language backgrounds, others argued that EAL students have had the same exposure to words and concepts, the only difference being that it was not in an English language environment. For example, in Extract 8, Participant 3 indicated they believed all of the languages a student has at their disposal should be accessed, utilised and valued in academic writing. Participant 3 indicated that restricting a students' ability to use MT has moral implications ("morally wrong") - it is discriminatory ("disadvantaged") and nonsensical ("it makes no sense"). They argue that the reasons for MT inhibiting use are not based on reason (i.e. "sense") and place EAL students at a disadvantage.

Extract 8 - Participant 3

Yeah, I think it is ethical. I don't think there is anything morally wrong with it [...] Let's say someone who was born, here, has advantage of hearing those words over and over again from the second they were born and up until the time they were writing an assignment whereas someone like me or someone who's been here for a year or even less than me has not heard those words in their lives and they might obviously know that word in their language because they've heard it, but they do not know it in English [...] we're pretty much disadvantaged because we don't know it [...] let's say that person did not have access to anything then they're not going to be able to get those points across for that p- / for that reason only. So it just makes no sense to not be able to use this stuff and for them to forbid. Oh you can't use the dictionary. why not? you know like (laughs) it doesn't make sense yeah. (P3)

Inequalities in the time it takes for EAL and non-EAL students to write academic assessments was mentioned by two students as another aspect that influenced their ethical stances in the use of MT. They argued that while the overall time students are provided to complete an assignment is the same, the actual time it takes for an EAL student to write in an additional language is longer than that of a non-EAL counterpart. One student (Participant 22) reported a discussion with a non-EAL "local friend" who indicated that they typically spend about 2 hours writing an essay, which compared directly to Participant 22's own experience of needing to spend "like two weeks on it." This argument was applied to the overall writing process, and also to the process of writing the first draft of the text. For example, in Extract 9, Participant 8 indicated that a key means of saving time is writing the assignment in the student's non-English languages, which then needs to be translated and revised again.

Extract 9 - Participant 8

I don't think it's not ethical because say, someone, their first language is not English, of course, they're better at writing in their own language. So they're better at expressing their own thoughts in their own language. So, probably it saves more time and later you can translate. (P8)

At the same time, the time-saving nature of MTs was also used to support claims of unethicity and creation of unfairness by two participants, whereby those students who use MT can complete their assessments faster than those who do not. However, this argument was only made in relation to other EAL speakers. Inherent to their claim is that use of MT shows a student's lack of effort and time investment, which allows them to gain an unfair advantage over other EAL students who choose not to use MT (Extract 10).

Extract 10 - Participant 7

cause you learning English, all the lecture and workshops you do it in English, but in the assessment you write in / like for me if I write in / all in Chinese and translate it's like just not good. It's like, hm. not fair to other students because not everyone will do this. Like my friends if she or he is also Chinese. They will try their best to write the essay in English and use the assessment tools to fix the words but I write all things in Chinese and translate them. So I don't feel good, like, doing this way. (P7)

Students also indicated that by using MT to shorten the length of time required to achieve equal exposure to words and concepts, they will become less reliant on those same tools over time. Independence in this sense referred not to their freedom to write, but their independence from those very tools that assist them to emerge as autonomous writers of English. Students indicated that this process towards independence is linked directly to ethics, particularly in those cases where students do not reduce their apparent reliance on MT. These students argue that use should be a temporary measure that will gradually lead to writing that is independent of translation devices.

Students both explicitly and implicitly indicated that gradual independence from MT that expands their lexical range must logically be linked to increased English language proficiency. Their considerations are, therefore, linked to the ethics of language learning in an English medium of instruction teaching environment. Students indicated that they do not see themselves as passive consumers of suggestions produced by MT and part of their ethical decision-making involves evaluating MT output before incorporating it into their assignments. At the same time, their focus on transitioning to an English-only medium indicates they place low value in the contributions of non-English components of their linguistic repertoires and, therefore, adhere to a deficit-oriented perspective of international and multilingual education.

Respect - institutions and broader society

The broader context of teaching and learning was another factor impacting on students' ethical decision making. Eight of 13 students indicated that issues such as respect for local languages and educational systems play a role in their ethical considerations, particularly in terms of the language that is used in assessment materials (e.g. rubric) and by lecturers, assessors and students. As Participant 24 noted, writing assignments in English is a sign of respect for the country in which they are studying: "but we are studying in an English country, that's / who speak English, so I think we need to respect the language that / in a country. (P24)"

Stemming from a deficit-orientation, for these students this meant that use of a language other than English is unacceptable at any stage during the writing process (e.g. planning) because it does not match with the English medium of instruction (Extract 11). They indicated this creates an ethical

dilemma for which they may feel guilty or bad (Extract 10): they do not believe use of MT is ethical, but, as indicated in another section of Participant 12's interview, they use MT under certain circumstances because the stakes in assessed academic writing are high.

Extract 11 - Participant 12

English is our top language. it's like the tool / communication tool between me and the marker. And I think in terms of advancing your grades, you should always try your best to think in English. [...] it's [...] actually not fair to other students [...] because some students maybe like me, although they struggle with -like fluent English writing, I will still try my best to plan, write in English because it's the school and the lecturers all people are communicating with English language. (P12)

Ethics of personal growth

Unlike fairness, which was positioned in relation to others, ethics of personal growth are exclusively about the self as a lifelong learner, particularly in terms of language acquisition, higher order thinking, and career development post-graduation. However, participants' views differed as to whether using MT could jeopardise or improve their lifelong learning goals.

As exemplified in Extract 12, four students indicated that they believe that use of MT is "good for your thinking" (P4) and, concurrently, accelerates English language acquisition:

Extract 12 - Participant 4

"it can help you keep learning English as well, like, when I do the research like I can learn more English words." (P4)

Eleven other students, however, held the view that using MT might compromise their learning journeys, both in terms of the English language and their disciplinary knowledge. For example, in Extract 13, Participant 12 indicated that reaching their lifelong goals and getting the most out of their time studying and working in an English-medium environment necessitates an English-only mindset whereby they refrain from using their non-English resources. This evokes a monolingual rather than a translanguaging approach to their learning.

Extract 13 - Participant 12

Chinese is also the language, but then I feel like you don't get the most of it. You can't get the best of the assignment experience as in the learning journey. You can't get the best of it ... because in your future career, you're not communicating Chinese. That's why even like for me, I will try my best to think in English and write in English, although sometimes, okay in my brain there are some Chinese to be like waiting for translation, but then I will still try my best. Okay think in English. (P12)

The ethics of personal growth are influenced by several contextual factors such as students' post editing engagement with MTs, purpose of use (i.e. saving time vs. language learning) and users intention to return to their country of origin after graduation. For example, in Extract 14, Participant 4 argues that ethicality depends on how users engage with MT. They indicate that, on the one hand, using MT to save time is unethical. On the other hand, if users engage with all of the texts in the translation process and use them as an opportunity for language learning, MT use is ethical.

Extract 14 - Participant 4

I look [at] both. Not just the Chinese version directly, I look at both ... I always check like how they explain this sentence in my language. So that's a good way for me to learn English as well ... I believe that being a lifelong learner that would be good. So, I always keep learning. So, I prefer to use English. That's the why I study abroad. Okay, so maybe they are lazy, they don't want to do it, it's time-saving, it is too fast for them to finish the assessment. (P4)

Summary of key findings

The above results indicate that students' take three main considerations into account when making ethical decisions concerning the use of MT for academic writing purposes; 1) ownership of language and ideas; 2) fairness and respect in relation to other students, society and institutions; and 3) personal growth. However, the results also indicate that within these key themes, student positionings vary widely, resulting in a range of arguments, conclusions and approaches to the ethics of using MT. While all students seemed cognisant of ethical issues, their views were individualised and divergent. The results show that the students' decisions as to whether to use MT are not dichotomous, but scalar, strategic and dynamic and highlight the importance of expanding discussions about student use of MT at university beyond academic integrity to address other ethical issues, including linguistic gatekeeping and student equity (see Paterson, 2023). Questions of ethicality that move beyond issues of academic integrity tap into broader individual, social and institutional constructs of fairness, skills recognition, lifelong learning and language dominion. The findings highlight not only the complexity of this topic, but also the diversity of factors which students consider when deciding on how to ethically write their assignments.

Discussion

Students in this and previous studies indicate that ethicality is not a blanket 'yes' or 'no' decision, but one that is dependent on variables such as length of text and engagement in post-editing practices (Alhaisoni & Alhaysony, 2017; Ata & Debreli, 2021; Jolley & Maimone, 2015; Clifford et al., 2013; Liu et al., 2022). In line with Dorst et al. (2022), participants in this research did not mention any concerns regarding the translation of confidential or sensitive information, data management/ownership or the handling of cultural references or bias. This study highlights other factors that students take into account that are not linked to the length or content of the text but to their own perspectives and principles of ownership, fairness and personal growth.

Reflecting ongoing societal debates in which the relationship between author and translator in literary contexts remains highly contested (e.g. Zhang & He, 2018), students focused mainly on the degree to which the student or machine retains proprietorship of the language produced. Institutional clarity concerning the point at which a text no longer becomes the sole property of the writer when using MT does not seem to be available to students, whereby university guidelines only highlight the distinction between using technology to revise student writing or generate original work (e.g. Institution Name University, n.d.).

Despite such a lack of clarity in terms of university policies (Dinneen, 2021; Kim & LaBianca, 2018) and institutional failure to prepare students for what they consider to be appropriate use of MT (Heugh et al., 2022), EAL students in this study seemed aware that use of MT is linked to academic integrity. While some students framed use of MT as cheating (Correa, 2014; Harris, 2010; Steding,

2009; Dinneen, 2021), others described MT as a tool that can be honestly and ethically incorporated into writing practices. These students see use of MT as simply a means by which they can express their own thoughts and ideas clearly, thereby supporting, rather than hindering, academic integrity processes.

Uncertainty in terms of the ethics of MT use highlight the fact that definitions of academic integrity (including plagiarism) are both locally and socially constructed, therefore ascertaining ownership is invariably contextually-specific (Anson, 2022). A key contextual factor to be taken into consideration is that of assessment. As highlighted by this and previous studies, while issues of academic integrity arise when the aim of the task is to evaluate a students' linguistic competencies in a particular language (e.g. Correa, 2011, 2014), they are less salient when the aim of the assessment is the display of content knowledge. Students from a non-language-focused discipline in this study, indicated that MT allows clear expression of thought, which means they are more able to devote their cognitive resources to demonstrate their content knowledge and disciplinary competencies (Lee & Briggs, 2021).

Translanguaging and deficit-oriented ideological discourses

Although the students were never directly asked to define their ethical perspectives, their views often align with either translanguaging or deficit-oriented ideological discourse. Similar to the student participants in Heugh et al. (2022), some of the nursing and midwifery students in this study productively drew on multiple languages despite operating within the constraints of an English-medium course. This indicates they viewed their use of MT as an educative (Briggs, 2018; Delorme Benites et al., 2021; Murtisari et al., 2019; Garcia & Pena, 2011) translanguaging resource (Chen et al., 2019; Heugh et al., 2022; Vogel et al., 2018; Zhou et al., 2022) that allowed them to draw on, and advance, their own semiotic resources (Beiler & Dewilde, 2020; Chen et al., 2019; Heugh et al., 2022; Kelly & Hou, 2022; Tsai, 2020; Zhou et al., 2022; Vogel et al., 2018). In other words, by positioning themselves in what could be considered a translanguaging space (Li, 2011, 2018), they are able to draw on all of the linguistic abilities and language tools they have at their disposal (Garcia & Kleifgen, 2020; Paulsrud et al., 2017; Van Viegen & Zappa-Hollman, 2020).

Students in this study also saw global education as an exclusively English-only environment, where the use of multiple languages is discouraged and considered ethically inappropriate. For these students, the 'E' in 'English medium instruction' refers to a static standardised prestigious language system (Kuteeva, 2020), rather than a local practice (Pennycook, 2010) that is malleable to adaptation according to the individualised expression of its users and contexts of use. This aligns with a monolingual English mindset (Clyne, 2005; Sharma, 2021) and a deficit-oriented view of their own language abilities (Ryan, 2020; Tardy & Whittig, 2017), in which students may experience feelings of guilt (Yüzlü & Dikilitaş, 2022) or discomfort (Beiler & Dewilde, 2020) when drawing on their other languages, including any of their post-colonial non-standardised English as lingua franca varieties.

Employment of a translanguaging perspective provides students, faculty and institutions the opportunity to challenge monolingual ideologies and the privileging of English as the sole medium of scholarship (Li, 2022). A translanguaging approach could be a means of overcoming the negative repercussions of a monolingual English mindset (Clyne, 2005) in global education and contribute essential insight into decision-making processes for universities to clarify the parameters of ethical use of MT. From a translanguaging perspective, while languaging and cognition are inextricably

entwined (e.g. Canagarajah, 2018), all of a student's language belongs to a unified repertoire and drawing on MT to access the entirety of this repertoire for the expression of thought is ethical. It follows that using MT does not result in a loss of ownership, instead it enables students to access and expand all of the language resources they have at their disposal. From this point of view, policies and associated training permitting use of MT for tertiary education lay the foundations for all students to be provided equal opportunity to utilise their individual cognitive, linguistic and technological resources in often high-stakes university assessment settings. The degree to which this is effective is, however, dependent on whether access to MT remains paywall free.

This study highlights the need for universities to not only take an informed and clear stance on the use of MT in tertiary education, but, in forming such policies, take highly complex issues of fairness, translanguaging, ownership and individual personal growth into account. Using semi-structured interviews, the study gives voice to the breadth of ethical considerations students orient towards in relation to the use of MT in academic writing, thereby shifting the debate beyond simple considerations of academic integrity. The voices of the students in this study also highlight the depth and complexity of their thoughts when engaging with MT. They do not blindly utilise MT, but reflect and act upon their own informed value-based ethical decision-making processes.

The perspectives of academic educators are equally important and form part of the larger project in which this paper is embedded, as is data focusing on students' actual use of MT and the impact of use of MT and other language assistance software on the perceived quality of a student's writing. While we believe this research provides a valuable snapshot of a range of ethical positionings, it should be kept in mind that data was collected from a small number of self-selecting EAL nursing and midwifery students, rendering it difficult to generalise the findings of this research to all EAL students. Future research could expand the focus beyond nursing and midwifery and, in line with translanguaging approaches to languaging, recruit a wide range of students irrespective of their restrictively defined monolingual or multilingual language backgrounds. Other factors that might mediate students' ethical positionings (e.g. text type, summative versus formative assessments, discipline of study) should also be explored.

Conclusion

This study extends our understanding of EAL and international students' attitudes towards technology beyond the tertiary discipline of language acquisition and translation studies. Analysis of student voices reveal three key themes, which highlight the need to broaden discussions concerning use of MT beyond academic integrity to socio-contextual issues of; 1) ownership of both language and thought, 2) fairness and respect across and within EAL and non-EAL cohorts, institutions and society, and 3) and the ethics of lifelong learning.

In light of calls for universities to develop clear policies and guidelines for using MT and other online tools for the alteration or generation of text (e.g. paraphrasing tools, Grammarly), findings can contribute to the development of evidence-based and productive approaches to the use of MT in higher education. Of particular significance is the need for universities to broaden restrictive definitions of languages as finite entities, to translanguaging perspectives that acknowledge the extensive communicative repertoires that students should be encouraged to draw on in order to complete their studies.

This study shows that EAL students themselves are reflecting on philosophical, legal and ethical questions, and not blindly engaging in practices that could potentially harm their learning. They did not necessarily frame their use of MT as cheating, instead they indicated a variety of ways in which

MT can be applied to academic writing contexts and drawn upon to access the previously undervalued array of linguistic resources they possess. With this increased understanding of how students think critically about their writing processes and use of MT, educators can take an informed, translanguaging and strengths-oriented approach to supporting EAL students' assignment writing, which draws on their expanded repertoire of resources.

In the context of widespread concern that technological advancements will result in students outsourcing their learning (Paterson, 2023), the findings of this study indicate a counter-discourse in which EAL students follow ethical principles of ownership of ideas and language, fairness, respect and personal growth. The study assists, therefore, in moving towards a view of EAL students as "responsible and effective global citizens" (e.g. Institution Name University, 2021, p. 1) possessing a wealth of linguistic and cultural resources and with inherently ethical approaches to their own lifelong learning and self-improvement practices.

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Highlights

- EAL students do not blindly use artificially-intelligent machine translation.
- Discussions of ethical use of machine translation must be expanded beyond academic integrity.
- Student perspectives on using machine translation reflect both deficit-oriented and translanguaging discourses.
- University policies regarding machine translation should adopt a translanguaging approach to promote fairness.

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