STUDENTS' PERCEPTIONS OF THE USE OF DIGITAL TOOLS AND ARTIFICIAL INTELLIGENCE IN LSP: A THREAT OR AN OPPORTUNITY?

STRUČNI RAD / PROFESSIONAL PAPER

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Abstract

Artificial intelligence (AI) has been increasingly utilized in foreign language learning, and of recently in teaching as well. Although the use of Al provides many benefits, such as enhanced possibilities of material development for teachers or additional sources of information for students, it also poses considerable challenges, such as the reliability and accuracy of information. Therefore, the aim of this research is to investigate how students perceive the use of digital tools and AI in foreign language learning and teaching. The research included students of undergraduate and graduate studies at the Faculty of Economics and Business in Rijeka. Students' perceptions were gained through a questionnaire investigating the usage of digital tools and AI for the purposes of foreign language instruction. In addition, their perceptions of the reliability of provided materials were examined. Furthermore, students were also asked whether they believed that digital tools and AI would replace traditional methods of foreign language teaching and learning and whether they thought that the use of digital tools and AI for the purposes of studying was justified. The findings indicate that most students use digital tools and AI, particularly Google Translate and ChatGPT, for the purposes of foreign language learning. A notable proportion of students believe that the information provided by such tools is reliable and accurate, and that digital tools and AI may replace traditional methods of foreign language teaching and learning. Finally, more than half of the surveyed students hold that the usage of digital tools and AI for the purposes of studying is justified.

Keywords: artificial intelligence (AI), digital tools, foreign language learning, LSP teaching, students' perceptions

1. INTRODUCTION

Artificial intelligence (AI) has been increasingly utilized in foreign language learning, and of recently in teaching as well. It is considered to be one of the "emerging technologies", which "have led to new and increased digital literacy requirements on the part of the citizen" (Vuorikari et al., 2022, p. 1). This trend has also been reflected in foreign language teaching and learning. New methods of foreign language teaching, such as flipped classroom or project-based learning, allow for a more interactive environment for students (Kaira et al., 2024). Teaching is more technology-based, providing teachers with opportunities to create more modern content and exercises (Azamatova et al., 2023; Kaira et al., 2024; Sharifuddin & Hashim, 2024). Furthermore, the use of digital tools enables collaboration, creation and sharing of projects among students and teachers (Azamatova et al., 2023). In addition, digital and Al-driven tools are often utilized for translation, text analysis and rewriting and summarizing (Burkhard, 2022; Cotton et al., 2023). AI helps both teachers and students check their spelling and correct their grammar mistakes (Burkhard, 2022; Schmidt & Strasser, 2022; Sharifuddin & Hashim, 2024), while tools such as Grammarly also offer linguistic recommendations and feedback (Schmidt & Strasser, 2022).

Studies examining students' perceptions of digital and Al-driven tools yield two main findings. On the one hand, some findings point to the fact that students use digital and Al-driven tools, such as Google Translate, Grammarly, Duolingo or ChatGPT, as they find them useful and effective for foreign language learning (Benek, 2025; Lee et al., 2024; Pikhart et al., 2024; Slamet, 2024; Vo & Nguyen, 2024). Benek (2025) and Pikhart et al. (2024) also found that students use digital and Al-driven tools often or on a daily basis. On the other hand, students encounter challenges when using these tools. For example, the students participating in Lee at al.'s (2024) study reported that the tools sometimes provide inaccurate translations or unnatural expressions. Inaccuracy was also mentioned as a disadvantage by the students participating in Slamet's (2024) and Vo and Nguyen's studies (2024). Other challenges mentioned by students are the lack of human interaction (Vo & Nguyen, 2024), the lack of training and support regarding the usage of digital tools (Slamet, 2024) and screen fatigue (Pikhart et al., 2024).

Given the increased usage of digital and AI-driven tools in foreign language learning and teaching, the aim of this study is to examine students' perceptions and attitudes towards the usage of these tools for foreign language learning and teaching.

To address this aim, the following research questions were formulated:

- 1. Which digital and AI-driven tools do students use to aid them in foreign language learning, why and to what extent?
- 2. What are students' perceptions regarding the reliability and the justification for digital tools and AI usage?

- 3. Do students believe that digital tools and AI will replace the traditional foreign language teaching methods?
- 4. What are students' perceptions on how to change the traditional teaching and assessment methods in line with the technology developments and the increasing usage of AI?

2. CONTEXT

The research was conducted at the University of Rijeka, Faculty of Economics and Business (EFRI). EFRI offers two bachelor's and two master's study programmes: Economics and Business Economics, which enrol around 2,000 students. The Business Economics study programme includes five study tracks: Entrepreneurship, Finance, International Business, Management and Marketing. In addition to these Croatian-taught tracks, the Faculty also offers an English-taught track in International Business.

As part of these study programmes, students can choose among three foreign languages: English, German and Italian. While English is the obligatory foreign language for first- and second-year students, they may choose between German and Italian as their second foreign language in the third year of their undergraduate studies and first and second year of their graduate studies.

All foreign language courses comprise two 45-minute classes per week and carry three ECTS credits. Since English is a mandatory course, it enrols around 300 students per course. In contrast, German and Italian are elective courses, and thus the groups are smaller, with up to 50 students.

3. STUDY

Our study included 540 full-time undergraduate and graduate students at the Faculty of Economics and Business in Rijeka. Students' perceptions were gained by means of a questionnaire investigating the usage of digital tools and AI in foreign language learning. The questionnaire was made available to students of all study years and study programmes via the Moodle platform. It consisted of three parts and was developed based on the questionnaire utilised in a study conducted by Krželj et al. (2024).

The first part of the questionnaire addressed general information: gender, age, year of study, enrolment status (full-time or part-time), study track, and place of residence. The second part included six questions requiring the respondents to select one or more options from a list. This section investigated which tools the respondents used, the reasons behind their use, frequency of use, their reliability, and justification for use. The last question looked into whether the students thought that digital tools

and AI would replace the traditional foreign language teaching methods. The third part of the questionnaire contained an open-ended question inviting students to suggest how traditional teaching and assessment methods could be altered in view of new technological developments and the increasing usage of AI.

The questionnaire was created using Google forms. The reasons behind the choice of this platform lie in its ease of use as it is easily accessible to a large number of participants, has a simple interface and is cost-effective. In addition, responses can be automatically downloaded as an Excel file which allows for a more efficient processing of obtained data. The questionnaire link was shared with students during classes, and participation was anonymous. Students' responses were downloaded in an Excel file. Quantitative data were sorted and analysed, while responses to the open-ended question were compiled into a Word document, grouped by content, and later analysed thematically. After multiple readings, the meaning of the data was interpreted.

4. FINDINGS

The distribution of students' responses regarding the use of digital tool(s) for foreign language learning is presented in Figure 1. According to the collected data, 504 (93%) students opted for Google Translate, 232 (43%) for ChatGPT, 15 (3%) for Google Gemini, 9 (2%) for Microsoft Copilot, and 37 (7%) students named other digital tools, such as Glosbe, Duolingo, Grammarly and different (digital) dictionaries. Nine (2%) students said that they had not used any digital tools for foreign language learning.

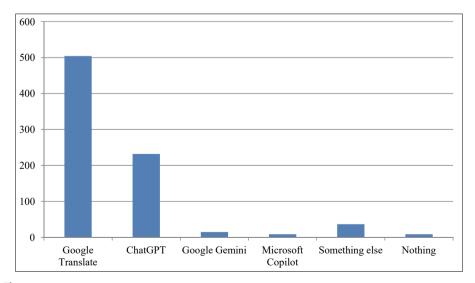


Figure 1Using Digital Tools for Foreign Language Learning

When asked why they used the digital tools in foreign language classes, 418 (77%) students stated that they used the digital tools in order to check the spelling, 403 (75%) to solve and check grammar exercises, 278 (51%) to create a seminar paper/essay/CV/other written assignments, 266 (49%) to create a presentation, 192 (35%) to prepare for the written midterm/final exam/test, 144 (27%) to prepare for the oral midterm/final exam/test, and 123 (23%) to prepare the presentation speech. Twenty-eight students (5%) described other purposes, such as to translate certain words, to check the pronunciation of certain words or to practise their speaking skills. An overview of their responses is presented in Figure 2.

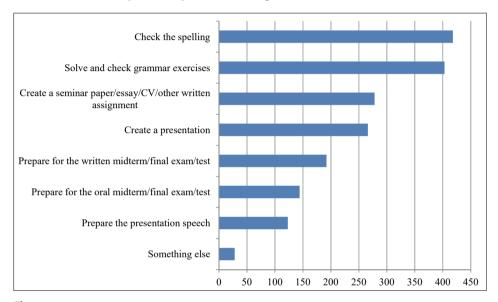


Figure 2Reasons for Using Digital Tools for Foreign Language Classes

Concerning the frequency of use, an overview of students' responses is shown in Figure 3. As for Google Translate, 354 (65%) students said that they used it sometimes, 136 (25%) said that they used it every day and 50 (9%) students said that they used it rarely. Regarding ChatGPT, 329 students (61%) said that they used it sometimes, 149 (28%) rarely and 62 (11%) daily. The results for Google Gemini and Microsoft Copilot are very similar. Ninety-four per-cent of students (506 students for Google Gemini, and 507 for Microsoft Copilot) said that they used them rarely. Everyday use of Google Gemini is marked by nine students (2%), whereas just five students (1%) use Microsoft Copilot daily. Google Gemini is sometimes used by 25 students (4%), and 28 students (5%) use Microsoft Copilot sometimes. As for other digital tools, 339 students (63%) said that they used them rarely, 157 (29%) sometimes and 44 (8%) every day.

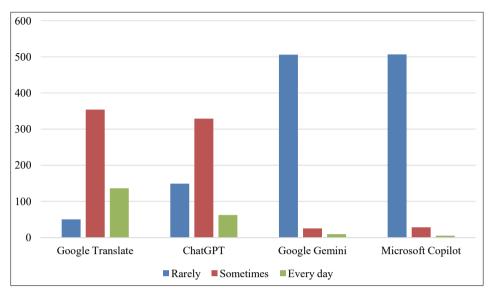


Figure 3Frequency of Use of Digital and Al-Driven Tools

Regarding whether they considered digital tools and AI reliable sources of information regarding foreign language learning, as shown in Figure 4, 263 (49%) students marked yes, 184 (34%) students said that they did not know, and 93 (17%) students marked no as their response.

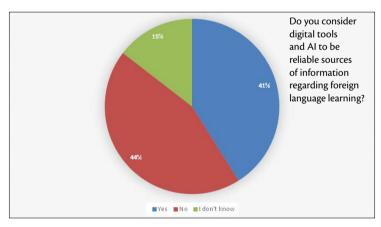


Figure 4Students' Perceptions of the Reliability of Digital Tools and AI

When asked whether they believed that the usage of digital tools and AI for the purposes of studying was justified, 325 (60%) students said *yes*, 133 (25%) students did not know and 82 (15%) of students said *no* (see Figure 5).

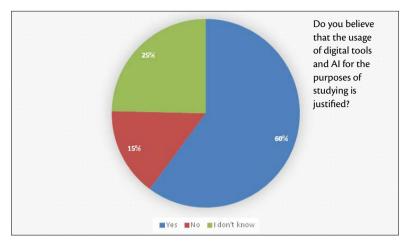


Figure 5Students' Perceptions of Whether the Use of Digital Tools and AI for Studying Is Justified

In regard to students' perceptions on whether digital tools and AI would replace traditional foreign language teaching methods, 226 (42%) students said *yes*, 200 (37%) said *no*, while 114 (21%) said they did not know, as shown in Figure 6.

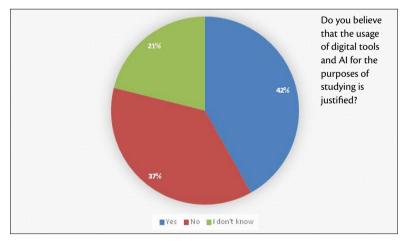


Figure 6Students' Perceptions of the Possibility of Replacing Traditional Foreign Language Teaching Methods With Digital Tools and AI

Concerning the open-ended question asking students to suggest ways to alter the traditional teaching and assessment methods in line with the technology developments and the increasing usage of AI, 114 (21%) students did not answer the question, 130 (24%) students said that they did not know or had no idea how traditional teaching and assessment methods should be changed, while 82 (15%)

students thought that traditional teaching and assessment methods were good and that nothing should be changed. The remaining 214 respondents (40%) provided suggestions for change.

Students' responses were translated verbatim, and the number which is provided in the brackets after each of the students' responses denotes the students' code (assigned for reasons of anonymity). The following responses outline the general viewpoint of the 82 students who said that nothing should be changed:

- I don't think anything should be changed. (40)
- I don't think that technology should replace the traditional teaching and assessment methods. (73)
- I believe traditional teaching and assessment ways are better. However, AI is increasingly used, so I suppose that it will be incorporated into assessment with time. (325)

Out of the 214 respondents who provided suggestions for change, 109 (20%) students explain that digital tools and AI should be used more during classes. The following comments sum up students' perceptions on potential digital tools and AI usage:

- Online activities created with the help of Al, such as different games and quizzes, should be used more in order to make the learning process more interesting and fun. (4)
- Al should upgrade traditional ways of teaching and learning, but it shouldn't replace them. By upgrading the traditional ways of teaching and learning, human work will be brought to perfection. (169)
- Al could be used for case study simulation. Also, chatbot could help students
 prepare for their exams: a chatbot can answer our questions and explain
 certain vocabulary items. (223)
- There could be short quizzes at the beginning of each class which would serve as revision of what was done before. (295)

Eighty-five (16%) students believe that the teaching approach should be changed. Their suggestions are reflected in the following statements:

- There should be more oral exams. (111)
- There should be more group work activities, where we collaborate, discuss and do research together. (192)
- Teachers should be more creative, not just stick to the book. (435)
- There should be more practical exercises, and less theory. Students learn the theory, but they don't know how to use it in real life. (524)

Finally, 20 (4%) students state that they should be taught how to use digital tools and AI:

- Students should be taught how to use AI, and it should be emphasized that AI is just a tool which can help us, not do something instead of us. (7)
- Students should be trained to use digital tools and AI to find useful information.
 This should be supervised by teachers, who should tell us which tools to use and where to find information we can use for the purposes of our studies. (144)
- Teachers should teach us how to use AI, not just forbid us to use it. (226)
- Kids should be taught how to use AI. It is more extensive than books because it combines different sources when providing information, so it is actually better than books. (347)

5. DISCUSSION

As stated in the introduction of this paper, digital tools and AI are becoming a reality in foreign language instruction and learning, which is also confirmed by the students in this study. Similar to the findings of Lee et al. (2024) and Pikhart et al. (2024), the participants of this study mainly use Google Translate and ChatGPT for foreign language learning. These tools are mostly utilised to aid students in preparing their written assignments and for checking grammar and vocabulary (spelling), where accuracy and efficiency are most needed. As extracted from the collected data, the students do not use them so often for oral assignments. This is in line with the findings of Vo and Nguyen (2024), where students also report on the effectiveness of ChatGPT in improving their reading and writing skills more than in improving their listening and speaking skills. Furthermore, considering the frequency of usage, over 60% of the respondents use Google Translate and ChatGPT sometimes, which differs from the findings of Benek (2025) and Pikhart et al. (2024) where students report on using the tools often or on a daily basis.

Concerning the reliability and justification of digital and Al-driven tools usage, around half of the students consider the tools to be reliable, and even more than half (around 60%) believe that the use of such tools for the purposes of studying is justified. This may be the result of the increased use and acceptance of digitization in everyday life. In view of the students' opinions on whether digital tools and Al would replace traditional foreign language teaching methods, almost half of the participants (42%) believe that this might happen. In their responses to the open-ended question, their suggestions go towards changing the teaching approach as to include more digital and Al-driven tools during foreign language classes. The reason behind all these responses may be that Generation Z is more inclined to use these tools for foreign language learning. The findings of this study point to the fact that students would like digital tools to be used more during the teaching process. However, they value the help and the support of the teacher, which is in line with the findings of Dolenc and

Brumen (2024), where the role of teachers was found to be irreplaceable, in spite of the rising usage of digital and Al-driven tools.

Additionally, the findings of the same study, as well as the findings of Slamet (2024), reveal that some students find teachers' guidance and support necessary because they are not sure about how to use digital tools effectively. The students participating in our study also suggest more interactive activities, such as oral exams, group work activities, games and quizzes. This is in line with the findings of Vo and Nguyen (2024) and De la Vall and Araya (2023) who found that one of the main challenges of using AI in teaching and learning processes is the lack of human interaction. This again highlights the advantages, and even a need for human-to-human versus human-to-machine communication. Therefore, assessment methods should be guided more towards in-class activities, rather than out-of-class activities. This is also confirmed by different scholars who recommend changes in assessment strategies and a shift towards more project-oriented tasks (George, 2023; Lodge et al., 2023; Sesay & Sesay, 2024).

Another challenge addressed by researchers is the academic integrity and the misuse of AI tools (Ateeq et al., 2024; Kizilcec et al., 2024). Even though there are tools designed to identify AI-generated text, it is still not entirely possible to detect students' usage of AI either as an assistant or a content creator in their final output, which makes it difficult for the teaching staff to assess their written assignments, such as seminar papers, presentations or essays. In order to tackle all these challenges, language teachers should insist on smaller size groups, where students would have more opportunities, freedom and time to use and practise the language. In addition, students should be instructed how to use digital and AI tools as support tools, and not as the main creators of their written assignments. One of the potential ways to overcome this challenge is to modify teaching and assessment methods in order to foster critical thinking and personal expression by balancing between traditional teaching methods on the one hand and new digital technologies and tools on the other hand.

6. CONCLUSION

In recent years, the use of digital tools and AI in LSP has been rising, which, in spite of the benefits, poses considerable challenges for both students and teachers. Therefore, the aim of this study was to investigate students' perceptions and attitudes towards the usage of digital and AI-driven tools in foreign language learning and teaching.

The findings show that digital tools, especially Google Translate and Chat GPT, are moderately used by students. They consider them to be reliable sources of information and a useful assistant in their studies, especially in the field of LSP. This

is supported by the findings of other studies, where digital and Al-driven tools have been considered to be beneficial when it comes to foreign language learning (cf. Azamatova et al., 2023; Benek, 2025; Lee et al., 2024; Slamet, 2024; Vo & Nguyen, 2024). However, the findings of our study also show that there are challenges which need to be tackled, including the lack of necessary knowledge of how to efficiently use digital and Al-driven tools, how to avoid misuse and plagiarism and how to maintain academic integrity. Therefore, the students conclude that the role of the teacher might somewhat change in the future, but that it is still very significant in guiding students and providing support, not only when it comes to acquiring content (whether language or other), but also when it comes to adapting to the new technological environment. It can thus be concluded that students see digital and Al-driven tools not as a threat, but as an opportunity for both teachers and themselves.

The findings of this study were based on the responses provided by a specific group of students (studying economics), which could be seen as a limitation, since they are generally perceived to be less tech-savvy compared to students in more technology-oriented fields. Therefore, further studies should investigate whether students in different scientific fields share perceptions and attitudes concerning the usage of digital and Al-driven tools, and whether they consider digital and Al-driven tools to be an opportunity or a threat.

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PERCEPCIJE STUDENATA O UPOTREBI DIGITALNIH ALATA I UMJETNE INTELIGENCIJE U NASTAVI STRANIH JEZIKA STRUKE: PRIJETNJA ILI PRILIKA?

Umjetna inteligencija (UI) sve se više koristi u učenju stranih jezika, a u posljednje vrijeme i u poučavanju. Iako uporaba UI donosi brojne prednosti, poput poboljšanih mogućnosti za razvoj nastavnih materijala za nastavnike ili dodatnih izvora informacija za studente, istovremeno predstavlja i značajne izazove, kao što su pouzdanost i točnost informacija.

Cilj je ovog istraživanja stoga ispitati kako studenti percipiraju uporabu digitalnih alata i umjetne inteligencije u učenju i poučavanju stranih jezika. Istraživanje je obuhvatilo studente prijediplomskih i diplomskih studija Ekonomskog fakulteta u Rijeci. Percepcije studenata prikupljene su putem anketnog upitnika koji je istraživao korištenje digitalnih alata i UI u nastavi stranih jezika. Ispitana su također i njihova mišljenja o pouzdanosti informacija dobivenih putem digitalnih alata i UI. Nadalje, studente se pitalo i smatraju li da će digitalni alati i umjetna inteligencija zamijeniti tradicionalne metode poučavanja i učenja stranih jezika te smatraju li opravdanom uporabu digitalnih alata i UI u svrhu učenja. Rezultati pokazuju da većina studenata koristi digitalne alate i UI u nastavi stranih jezika, posebice Google Prevoditelj i ChatGPT. Značajan udio studenata smatra da su informacije koje pružaju takvi alati pouzdane i točne te da bi digitalni alati i umjetna inteligencija mogli zamijeniti tradicionalne metode poučavanja i učenja stranih jezika. Na kraju, više od polovice anketiranih studenata smatra da je uporaba digitalnih alata i UI u svrhu učenja opravdana.

Ključne riječi: digitalni alati, percepcije studenata, poučavanje jezika struke, učenje stranih jezika, umjetna inteligencija (UI)