ROLE OF ARTIFICIAL INTELLIGENCE IN LEARNING ROMANIAN AS A SECOND LANGUAGE FOR INTERNATIONAL STUDENTS

Ana Cristina Lemnaru
Researcher, The National University of Science and Technology POLITEHNICA Bucharest, Pitesti University Center

Abstract: Learning a less used foreign language as a second language has become increasingly important in today's globalized world. Romanian as an L2, in particular, has gained popularity in recent years as the number of international students who choose Romania to continue their bachelor, master and PhD studies has significantly increased. As the demand for effective language learning methods grows, so does the integration of artificial intelligence (AI) into language education. Our article explores the benefits and challenges of using AI to learn Romanian as a second language (L2) for international students and delves into the benefits and challenges of integrating AI into learning Romanian as a less used foreign language.

Keywords: Romanian, L2 learning, artificial intelligence, effective L2 learning methods, spontaneous learning techniques

Introduction:

Learning a less used L2 has become an essential skill in today's interconnected world. As people become more globally mobile and businesses expand internationally, the ability to communicate effectively in multiple languages is highly valued and adds a plus value to resumes. Among the numerous languages spoken worldwide, Romanian has gained significant popularity at the higher education level due to its widespread usage and cultural influence.

With the increasing demand for effective and innovative L2 methods that focus on spontaneous learning techniques, traditional learning requires a powerful tool to enhance L2 acquisition during classes. AI technology has the potential to revolutionize the way we learn Romanian as a second language (L2), particularly for international students.

The integration of AI into language education offers numerous advantages for learners. One significant benefit is the ability to provide personalized learning experiences. AI-powered platforms can analyze the international student's individual needs, preferences, and learning pace to create tailored lessons. These personalized lessons ensure that international students receive instruction specifically designed to meet their unique requirements, ultimately leading to more efficient and effective language learning.

Problem Statement:

Moreover, AI technology enables adaptive learning, where platforms can adapt to the international student's progress and adjust the difficulty level accordingly. This adaptability ensures that international students are consistently challenged but not overwhelmed, thereby promoting continuous L2 improvement. By providing targeted feedback and adjusting the learning materials based on the international student's performance, AI-powered systems optimize the L2 learning experience.

Purpose of the Study:

AI technology also enhances Romanian acquisition through its ability to analyze pronunciation and provide immediate feedback. International students enrolled in the Preparatory programme of Romanian language for foreign students often struggle with proper pronunciation, which can hinder effective communication. AI-powered systems use speech recognition to assess Romanian pronunciation accuracy and provide real-time feedback. This feature enables international students to refine their pronunciation skills and gain confidence in speaking Romanian.

Research Methods:

A significant advantage in learning Romanian as an L2 is the use of virtual language tutors through voice or text, which simulates real-life conversations. This technology provides an immersive language learning experience, allowing international students to practice their language skills in a supportive environment. Narakeet[1] easily converts any written text to speech free, online. In addition, no registration is required, and it has 600 text-to-speech voices in 90 languages. Through Narakeet, international students can engage in interactive dialogues, improving their comprehension and fluency in Romanian. To this, we add the use of natural language processing (NLP): "As far as the Romanian language is concerned, efforts in the field of natural language processing are made in a few academic centres in Romania and the Republic of Moldova. Among the NLP applications developed, we mention the syllabus application for words, automatic flexing applications (FAVR modelling in the Mac-ELU environment, AnMorph system)"[2].

Furthermore, we may incorporate gamification elements to enhance international students' motivation to learn Romanian as an L2. Gamified language learning platforms integrate rewards, challenges, and leaderboards, transforming the learning process into an enjoyable experience. LINGO PLAY makes Romanian learning fun and interactive. Innovative technologies encourage active participation and increase international students' engagement. https://www.lingo-play.com/en/ro

Additionally, DRUID[3] is a powerful chatbot that plays a crucial role in L2 learning. This intelligent chatbot provides instant conversation responses to students' queries, creating an interactive learning environment by simplifying the international student's life, empowering L2 teachers, and streamlined operations. International students can practice their conversational skills and receive immediate feedback, thereby improving their language proficiency. The chatbot's ability to understand and respond to students' questions fosters a sense of autonomy and independence in their Romanian learning journey.

Although AI holds immense potential in language education, there are also challenges and limitations to consider. One challenge is the potential lack of human interaction. While AI technologies offer personalized learning experiences, they cannot fully replace the benefits of teacher-student interaction in language acquisition: "For foreign students learning Romanian, there are a number of difficulties that cannot be overcome easily without a number of auxiliary materials. For example, it is difficult for a foreign student to identify which gender a noun belongs to in Romanian until the student becomes familiar with the abbreviations, which for a beginner is complicated enough"[4]. Human interaction allows for cultural exchange,

[1] https://www.narakeet.com/languages/text-to-speech-romanian/#trynow, accesat la data de 01.09.2023.

[2] Berghia, Ștefania-Eliza, Pahomi, Bogdan, Volovici, Daniel, 2019. *Understanding Romanian Texts by Using Gamification Methods*, International Journal of Advanced Statistics and IT&C for Economics and Life Sciences June 2019 * Vol. IX, no. 1, , file:///C:/Users/Owner-PC/Downloads/33-Article%20Text-81-1-10-20191205.pdf, accesat la data de 26.08.2023.

[3] https://www.druidai.com/

[4] Pruneanu, Magdalena Dănuța, 2019. *Ways to Vocabulary Enrichment During the Preparatory Program of Romanian for Foreigners*, The European Proceedings of Social & Behavioural Sciences EpSBS, ISSN: 2357-1330, https://doi.org/10.15405/epsbs.2019.08.03.244, p.1990.

nuanced understanding of language usage, and the development of interpersonal skills, all of which are crucial for effective language learning.

Another challenge is the need for AI systems to incorporate intercultural aspects. it involves understanding cultural nuances and context. AI systems may struggle to fully capture these cultural elements, potentially leading to a limited understanding of the language and its cultural implications.

Romanian learning as a less used L2 goes beyond vocabulary and grammar: "There are a lot of studies that focus on the L2 acquisition of gender, and there is no study focusing on L2 acquisition of gender in Romanian"[5].

Looking ahead, the future of AI in Romanian learning is promising. The integration of virtual reality (VR) technology with AI has the potential to create immersive Romanian language learning experiences. VR can simulate real-life scenarios, allowing international students to practice their language skills in authentic contexts and enhancing their cultural understanding.

Findings:

1. Understanding the L2 learner, in our case, the international students that must acquire a B2 level of the Romanian in one academic year:

1.1. Individualized Romanian Learning: AI technology allows for personalized learning experiences tailored to each international student's needs, learning pace, and preferences;

1.2. Adaptive Learning: AI-powered systems can adapt to the international student's progress, providing targeted feedback on speaking, writing, and listening techniques and adapting the difficulty level accordingly.

2. Enhancing Romanian Language Acquisition for the B2 level in one academic year:

2.1. Romanian Pronunciation and Speech Recognition: AI-based Romanian language learning platforms can analyze international students' pronunciation and provide immediate feedback, helping them improve their Romanian speaking skills;

2.2. Natural Language Processing: AI technologies enable international students to interact with virtual language tutors through voice or text, simulating real-life conversations and enhancing their language comprehension.

3. Gamification and Engagement:

3.1. Gamified Romanian Language Learning: AI-powered platforms of Romanian as a less used L2 incorporate gamification elements such as rewards, challenges, and leaderboards, making the learning process more engaging and enjoyable.

3.2. Intelligent Chatbots: AI chatbots provide instant responses to international students' queries, creating an interactive learning environment that encourages active participation.

4. Romanian Language Assessment and Progress Tracking:

4.1. Automated Assessment: AI algorithms can assess international students' Romanian language skills, including grammar, vocabulary, and comprehension, providing immediate feedback and tracking their progress over time;

4.2. Data-driven Insights: AI technologies collect and analyze large amounts of data on international students' performance, enabling higher education teachers to identify patterns, gaps, and areas for improvement.

5. Challenges and Limitations:

[5] Agaoglu Hayati, 2013. *L2 Acquisition of the Romanian Grammatical Gender by Turkish Speakers*, SEA-Practical Application of Science, Volume I, Issue 2 (2), p. 18.

5.1. Lack of Human Interaction: While AI technologies offer personalized Romanian language learning experiences, they cannot completely replace human interaction, which plays a crucial role in L2 acquisition;

5.2. Cultural Considerations: AI systems may not fully incorporate cultural nuances and context, which are essential for understanding and using Romanian language effectively.

6. Future of AI in Romanian Language Learning:

6.1. Integration of Virtual Reality (VR): VR technology, combined with AI, can create immersive Romanian L2 learning experiences, simulating real-life scenarios, and enhancing cultural understanding;

6.2. Continuous Improvement: As AI technology advances, Romanian learning platforms will become more sophisticated, offering even more personalized and effective learning experiences.

Conclusion:

Artificial intelligence has revolutionized the way we approach Romanian as a less used language for international students. By providing personalized instruction, enhancing the language acquisition, and offering engaging learning experiences, AI technologies can significantly improve Romanian learning outcomes. However, it is vital to strike a balance between AI-driven instruction and human interaction to ensure a comprehensive and culturally sensitive learning experience. As AI continues to evolve, the future of the Romanian language or any less used language as an L2 education looks promising, with endless possibilities for effective and engaging language learning experiences.

Furthermore, AI technology will continue to evolve, leading to more sophisticated Romanian language learning platforms. As AI algorithms become more advanced, they will be able to collect and analyse vast amounts of learner data, providing higher education teachers, trainers and educators with valuable insights into international students' progress and areas for improvement. This data-driven approach will help all teachers tailor their instruction even further, leading to more effective Romanian learning outcomes.

In conclusion, the integration of AI in learning Romanian as an L2 for international students offers numerous benefits. From personalized and adaptive learning experiences to enhanced pronunciation, speech recognition, and gamification, AI technologies can transform language education. However, it is crucial to strike a balance between AI-driven instruction and human interaction to ensure a comprehensive and culturally sensitive learning experience. As AI continues to advance, the future of language education of Romanian as an L2 looks promising, with endless possibilities for effective and engaging language learning experiences.

BIBLIOGRAPHY

Agaoglu Hayati, 2013. *L2 Acquisition of the Romanian Grammatical Gender by Turkish Speakers*, SEA-Practical Application of Science, Volume I, Issue 2 (2),

Berghia, Ștefania-Eliza, Pahomi, Bogdan, Volovici, Daniel, 2019. *Understanding Romanian Texts by Using Gamification Methods*, International Journal of Advanced Statistics and IT&C for Economics and Life Sciences June 2019 * Vol. IX, no. 1, file:///C:/Users/Owner-PC/Downloads/33-Article%20Text-81-1-10-20191205.pdf, accesat la data de 26.08.2023.

Pruneanu, Magdalena Dănuța, 2019. *Ways to Vocabulary Enrichment During the Preparatory Program of Romanian for Foreigners*, The European Proceedings of Social & Behavioural Sciences EpSBS, ISSN: 2357-1330, https://doi.org/10.15405/epsbs.2019.08.03.244.

https://www.narakeet.com/languages/text-to-speech-romanian/

https://www.lingo-play.com/ro
https://www.druidai.com/