



## 2nd SYMPOSIUM ON LANGUAGE EDUCATION AND RESEARCH

On 22 and 23 February 2025  Venue: Aristotle University Research Dissemination Centre in Thessaloniki



Theme  
Pathway to progress: Teaching Innovation and Inspiration  
Interchange  
Subthemes  
Emerging technologies, best practices in innovative methodologies, curriculum and materials design and development, language assessment

# Application of Artificial Intelligence in Foreign Language Learning

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# Revolutionizing Foreign Language Acquisition with AI

This presentation explores the transformative impact of Artificial Intelligence (AI) on foreign language learning. It will be delved into various AI-powered applications and websites, examining their functionalities and diverse learning approaches. The focus will be on understanding the research landscape, analyzing the effectiveness of these digital tools, and identifying potential challenges. At the end, there will be explored future directions, considering innovative technologies like AR and VR to enhance language acquisition.



# A Historical Perspective on Language Learning Technologies

## Early Stages

The journey of technology in language learning began with simple audio recordings and language labs. These early tools provided basic auditory practice and pronunciation drills, laying the foundation for more advanced methods. However, interaction and personalization were limited.

## The Rise of Software

The advent of computers brought interactive software programs like early versions of Rosetta Stone. These programs introduced visual aids, grammar exercises, and vocabulary building, offering a more engaging experience than traditional methods. However, the feedback was often generic.

## The Internet Era

The internet revolutionized language learning with websites offering a variety of resources: online courses, language exchange platforms, and multimedia content. This era brought increased accessibility and opportunities for authentic communication. Yet, the quality varied greatly.





# The Global Demand for Language Learning

## 1 Globalization

As the world becomes increasingly interconnected, the ability to communicate across languages has become essential for business, travel, and cultural exchange. This need drives the demand for effective language learning solutions.

## 3 Cognitive Benefits

Learning a new language has been shown to improve cognitive functions such as memory, problem-solving skills, and multitasking abilities. These benefits contribute to the overall intellectual development.

## 2 Career Advancement

Proficiency in a foreign language often opens doors to new career opportunities and promotions. Many industries value multilingual employees, increasing their competitive edge in the global marketplace.



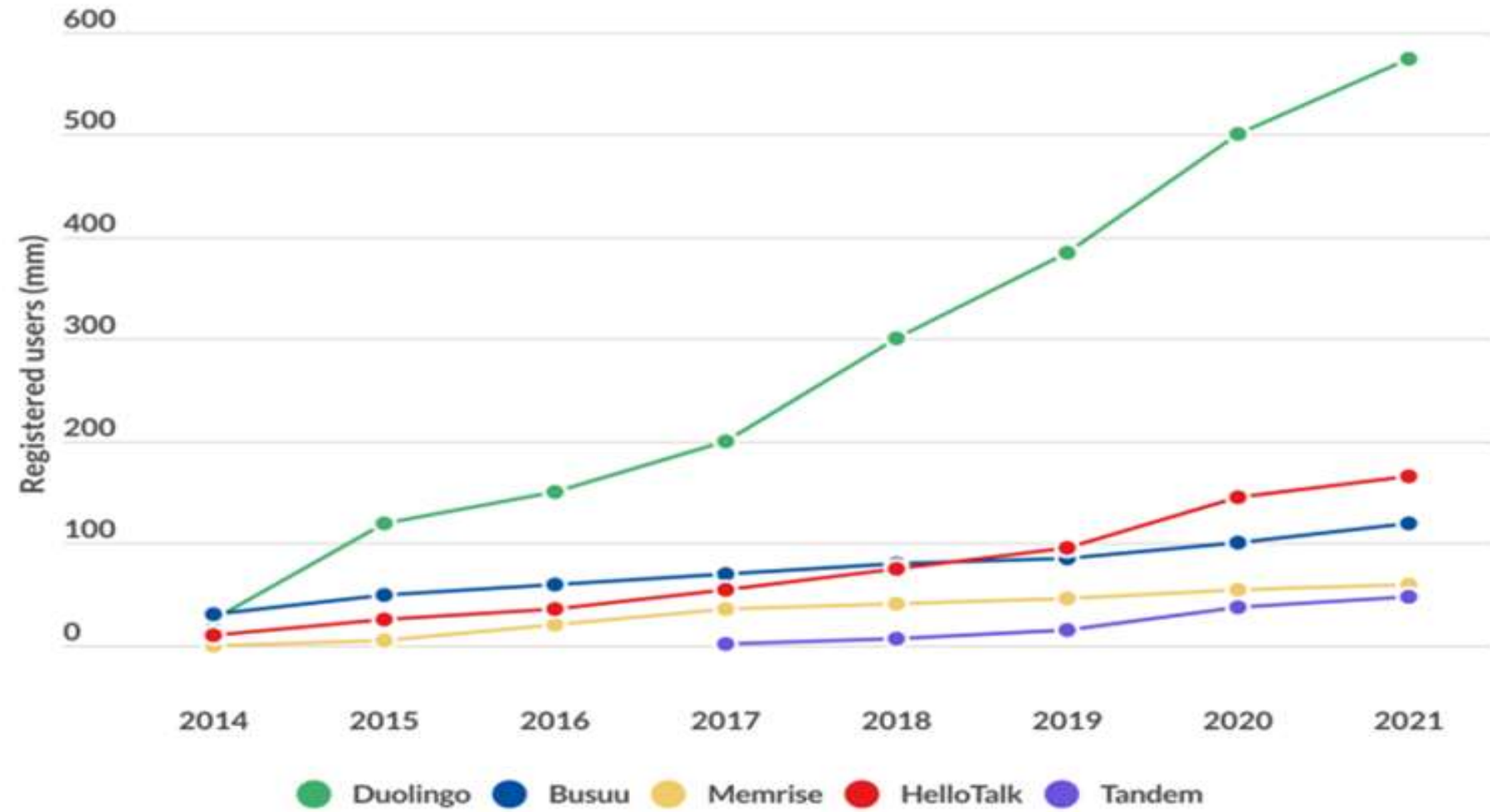


Figure 1. Graphical representation of downloads of language learning apps from 2014 to 2021. Retrieved from: <https://www.businessofapps.com/data/language-learning-app-market/> [April 10, 2024]

# The Most Studied Languages Worldwide



## English

English is the most widely studied language globally, driven by its status as the language of international business, science, and technology. It's a crucial skill for accessing information and opportunities.



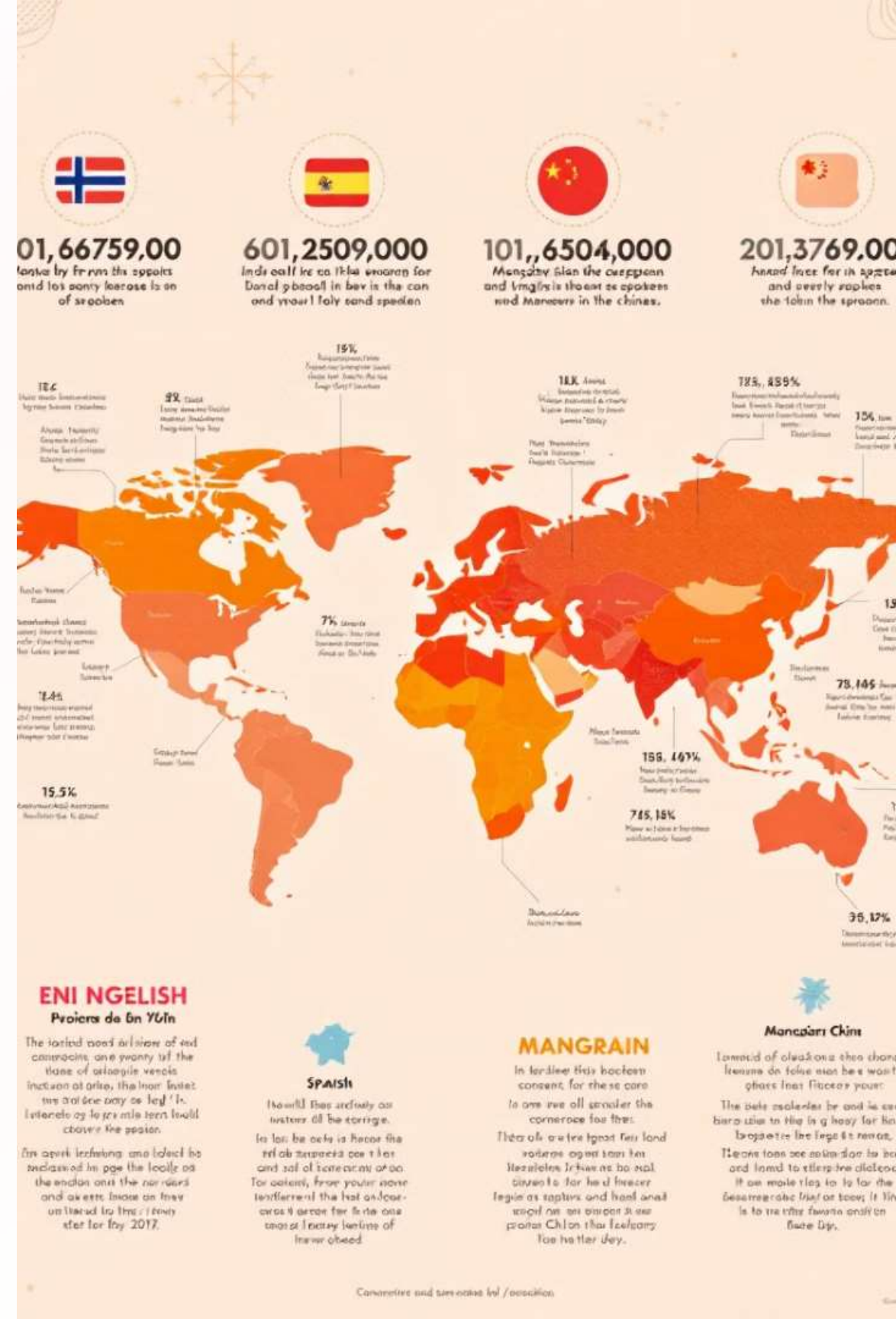
## Spanish

Spanish ranks second due to its widespread presence in the Americas and Europe. The rich culture and growing economic influence of Spanish-speaking countries make it a valuable language to learn.



## Mandarin Chinese

Mandarin Chinese is gaining popularity due to China's economic power and cultural significance. It is considered difficult for native English speakers, but the increasing demand makes it a sought-after skill.





# Popular Language Learning Platforms

1

## Duolingo

Gamified lessons, bite-sized exercises, and a focus on vocabulary and grammar make Duolingo a popular choice for beginners. Its accessibility and free content have attracted a large user base.

2

## Rosetta Stone

Known for its immersive approach using images and audio, Rosetta Stone aims to simulate real-world language learning. It emphasizes pronunciation and contextual understanding, catering to visual learners.

3

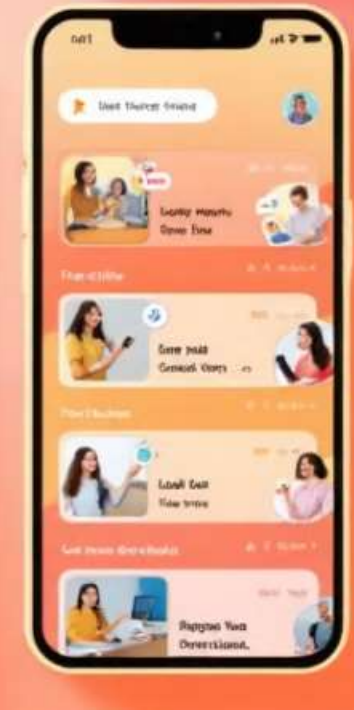
## Babbel

Babbel offers structured courses designed by language experts, focusing on practical conversational skills. It provides personalized learning paths and emphasizes grammar and vocabulary acquisition.

4

## Busuu

Busuu combines structured lessons with opportunities for interaction with native speakers. It fosters a community-based learning environment and focuses on improving speaking and writing skills.



# Popular Language Learning Platforms

1

Duolingo



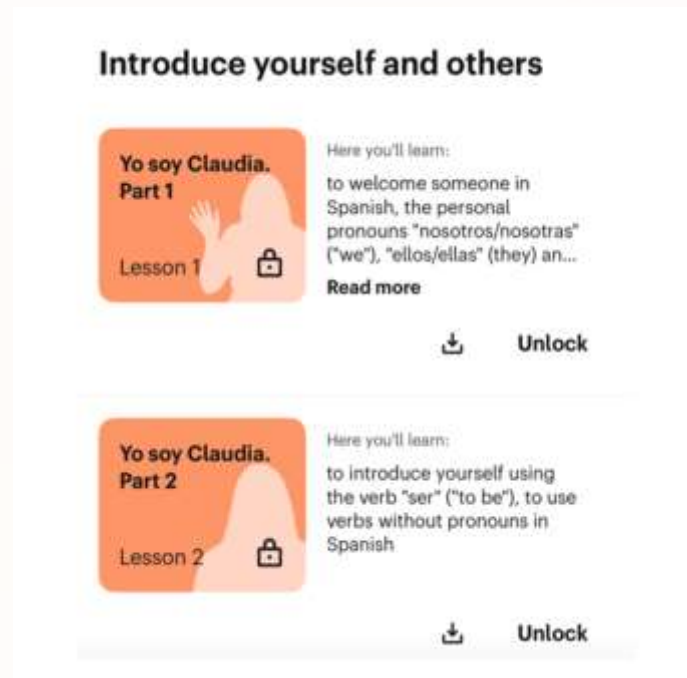
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Rosetta Stone



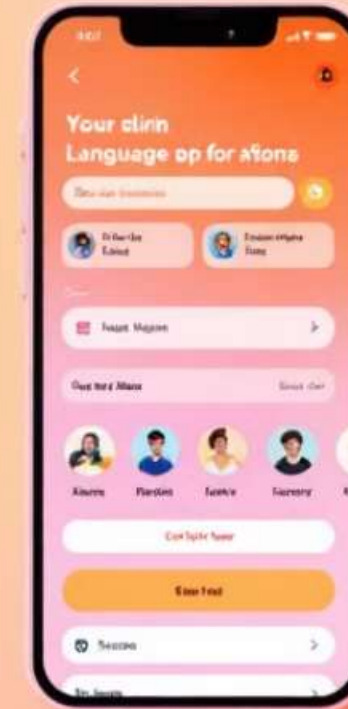
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Babbel



4

Busuu





# Analysis of Research on AI-Powered Language Learning

## Effectiveness

Studies have shown that AI-powered language learning tools can significantly improve vocabulary acquisition and grammar skills. Personalized feedback and adaptive learning paths contribute to more effective learning.

## Impact

AI-driven platforms have expanded access to language education, particularly for those in remote areas or with limited resources. The interactive and engaging nature of these tools can also increase motivation.

## Efficiency

AI can accelerate the learning process by providing immediate feedback, identifying knowledge gaps, and tailoring content to individual needs. This allows learners to focus on areas where they need the most help.





# Challenges and Limitations

## Lack of Immersion

While AI tools offer convenience, they often lack the immersive experience of learning in a native-speaking environment. This can limit the development of fluency and cultural understanding.

## Inadequate Feedback

Current AI systems may struggle to provide nuanced feedback on pronunciation and grammar, especially in languages with complex phonetic systems. Human interaction remains crucial for refining these skills.

## Dependence

Over-reliance on AI-powered tools can hinder the development of independent learning strategies. Learners may become too dependent on the technology and struggle in situations without it.







# Future Directions and Innovations

## Augmented Reality (AR)

AR can overlay digital information onto the real world, creating immersive language learning experiences. Imagine pointing your phone at an object and seeing its name translated into your target language.

## Social Integration

Integrating language learning platforms with social networks can facilitate communication and collaboration with native speakers. This fosters a community-based learning experience.

1

2

3

## Virtual Reality (VR)

VR offers the potential for fully immersive language environments where learners can practice speaking and interacting in realistic scenarios. This could simulate travel and cultural immersion.





THANK YOU FOR YOUR ATTENTION!

