

**THE ROLES OF ARTIFICIAL INTELLIGENCE AI IN TEACHING FRENCH
AS A FOREIGN LANGUAGE: THE PROSPECT AND CHALLENGES.**

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ABSTRACT

The integration of Artificial Intelligence (AI) into the teaching of French as a Foreign Language has significantly transformed language education by enhancing instructional delivery and learner engagements. AI-powered tools such as intelligent tutoring systems, chatbots, speech recognition software, and adaptive learning platforms offer personalized learning experiences, real-time feedback, and increased opportunities for autonomous practice. These innovations support the development of key language skills, including listening, speaking, reading, and writing, while addressing individual learner needs and pacing. Despite these prospects, the application of AI in teaching French presents notable challenges, including issues related to data privacy, unequal access to technology, limited teacher preparedness, and the risk of over-reliance on automated systems. Additionally, concerns about the accuracy and cultural appropriateness of AI-generated content may affect language authenticity. This paper also examines both the potential benefits and the challenges of AI integration in teaching french, emphasizing the need for a balanced, ethical, and pedagogically sound approach. The study then concludes that artificial intelligence has significantly reshaped the teaching of French as a Foreign Language by promoting personalized learning, interactive instruction, and immediate feedback. One of the recommendations was that AI tools should be integrated as supportive instructional aids rather than replacements for teachers.

KEYWORDS: AI in Teaching French, Foreign Language, Prospect and Challenges.

INTRODUCTION

The rapid advancement of Artificial Intelligence (AI) has catalyzed transformative changes across various domains, most notably in language education. In teaching French as a Foreign Language (FFL), AI's integration promises a paradigm shift from traditional instructor-centered models to adaptive, learner-centered environments. This innovative trajectory harnesses machine learning, natural language processing, and intelligent tutoring systems to create personalized learning pathways, enhance linguistic competency, and foster cultural engagement among learners (Hernández-García & Martínez, 2018).

One of the most compelling prospects of AI in FFL instruction lies in its capacity for personalization. Unlike conventional one-size-fits-all curricula, AI systems can assess individual learner profiles—identifying strengths, weaknesses, and learning rhythms—to tailor instructional content dynamically (Li & Ni, 2020). For instance, adaptive learning platforms can modify vocabulary exercises or pronunciation drills based on real-time performance, allowing learners to progress at their own pace. Such customized feedback supports deeper engagement and can accelerate proficiency gains (Xu et al., 2021).

Furthermore, intelligent conversational agents and chatbots provide immersive practice opportunities that simulate real communicative contexts. These AI tools can engage learners in spontaneous dialogues, correct errors, and model authentic French usage with immediate feedback (Mulyati, 2019). This continuous interaction not only reinforces grammatical and lexical knowledge but also strengthens learners' confidence in practical communication—a critical component of language acquisition.

AI also facilitates automated assessment and feedback, which alleviates the instructional burden on educators. Tools such as automated essay scoring and speech recognition systems can quickly analyze learner outputs, offering corrective suggestions that are both timely and precise. Consequently, instructors can devote more time to high-order pedagogical tasks, such as fostering intercultural competence and overseeing project-based activities.

CONCEPT OF ARTIFICIAL INTELLIGENCE (AI)

Artificial Intelligence was officially coined and defined by John McCarthy at the time as “the science and engineering of making intelligent machines” (Collins et al., 2021). Russel & Norvig (2020) referred to it as the “the birth of artificial intelligence.” One of the initial paradigms of AI was that it revolved around high-level cognition. Not the ability to recognize concepts, perceive objects, or execute complex motor skills shared by most animals, but the potential to engage in multi-step reasoning, to understand the meaning of natural language, to design innovative artifacts, to generate novel plans that achieve goals, and even to reason about their own reasoning.

AI is a field of computer science that studies how machines can imitate the intelligence of their human counterparts. Over the last decade, definitions of the term have become quite loose and refer to just about any computerized or automated function. However, the difference between an AI system and traditional software packages is the ability to make informed judgments and decisions by responding to patterns in data (Sarmah, 2019). According to Rupali & Amit (2017), Artificial intelligence is an intellect that is much smarter than the best human brain in practically

every field, including computer science and linguistic logic. It is a modern method of machines which will do muscle work and illustrate complex questions in an “intellectual” manner. It is concerned with the basic and most important aspects in our life i.e. philosophy, computer science, mathematics, linguistics, biology, neuron science, sociology etc.

According to Chatterjee (2020), Artificial intelligence is an imitation of human cognitive processes with the help of machines. In particular, the unique implementation of AI, including computer systems specialist systems, artificial language processing, voice recognition and artificial intelligence performed by Machine Vision Artificial Intelligence (AI) machines. AI technologies range from simple algorithms to complex neural networks, and they are used in diverse applications such as speech recognition, robotics, autonomous vehicles, and data analysis. The goal of AI is to enable machines to simulate human cognitive functions to improve efficiency and solve problems in various domains

CONCEPT OF FRENCH LANGUAGE

Conceptually, French is a Romance language that developed from Vulgar Latin after the fall of the Roman Empire, especially in the region that is now France. According to Lodge (2018), French developed through a gradual process of linguistic transformation influenced by Gallo-Roman dialects, Frankish Germanic elements, and sociopolitical changes. Similarly, Ayres-Bennett (2020) explains that the emergence of French as a distinct language was shaped by historical standardization efforts, especially from the middle. Ages onward, which distinguished it from other Romance languages such as Italian and Spanish. From a linguistic standpoint, the distinct phonological, morphological, and syntactic structures of the French language theoretically define it. According to Durand and Lyche (2019), French phonology is characterized by features such as nasal vowels, liaison, and elision, which significantly influence pronunciation and meaning. In addition, Coveney (2018) notes that French grammar exhibits a complex system of verb conjugations, gender agreement, and sentence structure, making it a language that requires both formal instruction and contextual exposure for effective mastery.

The French language is seen as a sociolinguistic ally and a national and worldwide communication medium. According to Calvet (2019), French functions as a symbol of national identity in France while simultaneously serving as a global language spoken across Europe, Africa, the Americas, and parts of Asia. Likewise, Leimgruber (2020) explains that French maintains a strong presence as an official language in international organizations such as the United Nations and the African Union, reinforcing its global sociopolitical relevance.

In terms of education, the notion of French encompasses its status as a second or foreign language in numerous nations. According to Howard (2019), French language instruction promotes multilingual competence, cultural awareness, and cognitive flexibility among learners. Similarly, Germain and Netten (2018) argue that the teaching of French emphasizes communicative competence, integrating listening, speaking, reading, and writing skills to enhance functional language use in real-life contexts. The French language is conceptually seen as a dynamic and changing system in today's digital and globalized society. According to Tagliamonte (2020), technological advancement and social media have contributed to lexical innovation and informal language use in modern French. In addition, Blanchet (2021) highlights that despite the influence of globalization and English dominance, French continues to adapt while preserving its linguistic norms through institutional regulation and cultural transmission.

CONCEPT OF FOREIGN LANGUAGE

A foreign language is one that is studied in addition to one's mother tongue and is typically spoken in a different nation or area. Unlike a second language, which may be used in daily life within the learner's environment, a foreign language is often learned through formal education, personal interest, or media exposure (Yarbekova, 2025). Because it makes communication, cultural exchange, and access to global knowledge easier, learning a foreign language has become essential in today's globalized world.

There are substantial cognitive advantages to learning a foreign language. It enhances multitasking, memory, focus, and problem-solving abilities. Studies indicate that individuals who learn foreign languages develop better executive functioning in the brain, which enhances overall intellectual growth (Po'latova, 2024). Beyond language acquisition, these cognitive benefits have a favorable effect on everyday decision-making and academic achievement.

Learning a foreign language fosters global competency and cultural awareness. Language proficiency promotes empathy and cross-cultural communication abilities by enabling learners to interact with the customs, culture, and social norms of the target language community (International Journal of Intercultural Relations, 2024). In today's globalized world, where cross-cultural connections are common in travel, business, and education, this kind of cultural awareness is crucial.

Gaining proficiency in a foreign language has major advantages for one's profession and finances. Particularly in the fields of international commerce, diplomacy, tourism, and technology, employers are increasingly looking for people who can communicate effectively in various languages. Research shows that multilingual individuals often have better employment prospects and higher earning potential compared to monolingual peers (Grenier & Zhang, 2025).

Additionally, studying a foreign language promotes lifelong learning and personal development. It increases self-assurance, improves social skills, and opens doors for travel, study abroad, and cross-cultural interactions. Moreover, it encourages lifelong curiosity and intellectual development, making individuals more adaptable in diverse social and professional contexts (Modern Education and Development, 2025).

ROLES OF AI IN TEACHING FRENCH

Pronunciation and listening comprehension Enhancement with speech recognition technologies

Enhancing pronunciation and listening comprehension with speech recognition technologies is another significant function of AI in French language instruction. According to Liakin, Cardoso, and Liakina (2017), AI-powered speech recognition tools provide immediate feedback on learners' French pronunciation, intonation, and stress patterns, enabling learners to self-correct in real time. In addition, McCrocklin (2019) notes that AI-based pronunciation applications expose learners to authentic native-speaker models, which enhances phonological awareness and listening comprehension in French language acquisition.

Development of French vocabulary and grammar

Through intelligent tutoring programs, artificial intelligence also aids in the development of French vocabulary and grammar. According to Heift and Schulze (2018), AI-based grammar checkers and automated feedback tools help learners identify syntactic and morphological errors in French writing, thereby reinforcing correct language use. Similarly, Ranalli (2018) explains that AI-driven language learning environments facilitate repeated practice and contextualized exposure to French vocabulary and grammatical structures, which strengthens learners' linguistic accuracy and fluency.

Adapted Learning contents

When it comes to improving individualized learning in French language instruction, artificial intelligence is crucial. According to Kukulska-Hulme and Viberg (2018), AI-driven systems adapt learning content to individual learners' proficiency levels, learning pace, and specific language needs, thereby improving engagement and retention. Similarly, Godwin-Jones (2019) explains that intelligent language-learning platforms use data analytics and adaptive algorithms to recommend customized vocabulary, grammar exercises, and pronunciation tasks for French learners, making instruction more learner-centered and effective.

Use of interactive and immersive technology to increase student motivation and engagement

AI also helps with French instruction by using interactive and immersive technology to increase student motivation and engagement. According to Pérez-Marín and Pascual-Nieto (2019), AI-powered chatbots and virtual conversational agents allow learners to practice French in simulated real-life situations without fear of embarrassment or judgment. Likewise, Fryer and Carpenter (2020) argue that AI-based conversational tools increase learner confidence and willingness to communicate in French by providing a supportive and responsive learning environment.

Evaluation and feedback in French language instruction

Additionally, artificial intelligence is essential for evaluation and feedback in French language instruction. According to Zhai, He, and Liu (2020), AI systems enable automated assessment of learners' French reading, writing, and speaking skills, providing timely and consistent feedback. Similarly, Balfour (2019) notes that AI-assisted assessment tools reduce teachers' workload while offering detailed analytics on learners' performance, which supports data-driven instructional decisions and improves overall teaching effectiveness.

Prospect of Using AI in Teaching French

The application of artificial intelligence (AI) to French instruction is creating intriguing new possibilities for more individualized and interesting language learning. Artificial intelligence (AI) solutions, such as chatbots, smart tutoring systems, and applications that provide immediate feedback, can modify lessons to fit the pace and proficiency of each learner. This helps with vocabulary, pronunciation, and general comprehension because students receive activities and corrections tailored to their particular strengths and shortcomings. Okoye & Tidjani (2025) showed that students using AI-driven French learning platforms tend to stay more motivated and often progress faster than those in traditional, one-size-fits-all classrooms.

Additionally, AI increases the flexibility and accessibility of learning French. Students can practice independently at any time and from any location with applications that mimic real-life conversations or employ speech recognition. Because they can attempt to learn from their mistakes without worrying about being judged, many students say that these interactive tools not only improve their comprehension of the language but also boost their confidence. Essentially, AI empowers students to take control of their own learning journey, creating a more autonomous and enjoyable experience (Aounia & Safaa, 2025).

However, it's crucial to keep in mind that AI cannot take the position of human educators. It is excellent for exercises, drills, and instant feedback, but it lacks the cultural background, nuanced details, and emotional support that make language acquisition genuinely rich. Issues include educators' lack of digital literacy, infrastructure issues, and privacy concerns require careful consideration. Korrell & Albrecht (2025) recommend combining AI with traditional teaching methods—what is often called a “blended” approach—to get the best results in French education.

CHALLENGES OF USING AI TO TEACH FRENCH

Limited alignment with established pedagogical frameworks for foreign language education

One of the principal challenges of using artificial intelligence (AI) to teach French lies in its limited alignment with established pedagogical frameworks for foreign language education. Although AI-powered tools such as chatbots, intelligent tutoring systems, and adaptive language platforms offer personalized learning experiences, many lack consistency with curriculum-based progression required in French language instruction. According to Luckin et al. (2016), AI systems often prioritize efficiency and automation over sound pedagogical sequencing, which can lead to fragmented learning outcomes. Similarly, Blyth (2018) argues that foreign language learning, particularly French as a Foreign Language, requires structured exposure to grammar, syntax, and discourse conventions that AI tools may oversimplify or present out of context. This misalignment can weaken learners' long-term communicative competence, especially when AI replaces rather than supplements teacher-led instruction.

Unequal access to AI technologies

Another major challenge is the issue of unequal access to AI technologies, which exacerbates existing educational inequalities in French language learning. AI-driven instruction depends heavily on stable internet connectivity, modern digital devices, and technological literacy, all of which remain unevenly distributed across regions and institutions. Zawacki-Richter et al. (2019) highlighted that the digital divide remains a significant barrier to the effective adoption of AI in education, particularly in developing contexts. In the teaching of French, Adekola and Adeyemi (2021) observe that many learners in under-resourced settings lack consistent access to AI-supported platforms, making implementation unsustainable and inequitable. As a result, AI risks benefiting only a privileged group of learners, undermining the inclusive goals of language education.

Ethical concerns

Ethical concerns, particularly those related to data privacy, algorithmic bias, and cultural misrepresentation, also pose serious challenges to the use of AI in teaching French. AI language

systems rely on large datasets that may collect sensitive learner information, raising concerns about consent, surveillance, and data misuse. Holmes et al. (2021) caution that many educational AI tools operate with limited transparency regarding data handling practices. Furthermore, Baker and Smith (2019) noted that algorithmic bias can affect language output, often favouring dominant linguistic norms while marginalizing regional French varieties and cultural nuances. This is problematic in French language teaching, where cultural authenticity and linguistic diversity are central to communicative competence.

Alteration of the traditional role of teachers, creating challenges related to professional readiness and pedagogical control

The integration of AI into French language instruction also significantly alters the traditional role of teachers, creating challenges related to professional readiness and pedagogical control. While AI is often promoted as a support tool, inadequate teacher training can result in misuse or overreliance on automated systems. Kessler (2018) emphasizes that language teachers require specialized training to critically evaluate AI-generated content and integrate it meaningfully into instruction. Likewise, Pokrivčáková (2020) argues that without sufficient professional development, teachers may struggle to balance human interaction with AI mediation, leading to reduced instructional quality and weakened teacher–student relationships in French classrooms.

Limitations of AI in developing productive language skills

Another critical challenge concerns the limitations of AI in developing productive language skills such as speaking and writing in French. Although AI performs relatively well in vocabulary drills, translation, and reading comprehension, it struggles with spontaneous oral interaction, pragmatic competence, and context-sensitive communication. Golonka et al. (2014) assert that meaningful language acquisition requires real-time negotiation of meaning, which AI systems cannot fully replicate. Additionally, Warschauer and Kern (2000) note that authentic communicative practice in foreign languages depends heavily on social interaction, cultural feedback, and emotional engagement—elements that AI-driven platforms inadequately provide in French language learning contexts.

The reliability and accuracy of AI-generated content

Finally, the reliability and accuracy of AI-generated content remain a major concern in teaching French, as errors in grammar, semantics, or cultural usage can mislead learners. Generative AI systems may produce linguistically plausible but incorrect sentences, which students may accept uncritically. Brown et al. (2020) acknowledge that large language models are prone to “hallucinations,” generating confident but inaccurate outputs. In the context of French language education, Petersen and Ostendorf (2022) warn that such inaccuracies can lead to fossilization of errors if not carefully monitored by instructors. Overdependence on AI may also reduce learners’ critical thinking and metalinguistic awareness, weakening the depth and durability of language acquisition.

Mitigating Strategies to the Challenges of Using AI Teach

AI tools should be embedded within well-designed, curriculum-driven teaching frameworks to address the challenge of poor pedagogical structure and weak curriculum alignment

To address the challenge of poor pedagogical structure and weak curriculum alignment in AI-assisted French instruction, AI tools should be embedded within well-designed, curriculum-driven teaching frameworks rather than used as stand-alone solutions. French language educators should align AI activities with recognized instructional models such as the Common European Framework of Reference for Languages (CEFR), ensuring that AI supports progressive development of grammar, vocabulary, and communicative competence. According to Luckin et al. (2016), effective AI integration requires strong pedagogical oversight to ensure learning objectives guide technological use. Similarly, Kessler (2018) emphasizes that when AI tools are deliberately mapped onto curricular goals, they enhance rather than disrupt structured language learning, thereby improving learning outcomes in French education.

Mitigation of Unequal access and digital divide through institutional support, blended learning models, and policy-driven investment in educational technology infrastructure.

The problem of unequal access and digital divide can be mitigated through institutional support, blended learning models, and policy-driven investment in educational technology infrastructure. Rather than relying solely on high-bandwidth AI systems, educators can adopt low-data AI tools and offline-supported applications to widen accessibility for French learners in under-resourced environments. Zawacki-Richter et al. (2019) argue that inclusive AI implementation depends on strategic planning that prioritizes equity and accessibility. In addition, Adekola and Adeyemi (2021) suggest that combining AI with traditional classroom instruction reduces dependency on constant connectivity while still allowing learners to benefit from intelligent language learning tools.

Mitigation of Ethical concerns related to data privacy, bias, and cultural misrepresentation by enforcing strict ethical guidelines and transparency standards

Ethical concerns related to data privacy, bias, and cultural misrepresentation can be mitigated by enforcing strict ethical guidelines and transparency standards in the use of AI for teaching French. Educational institutions should adopt AI platforms that comply with data protection regulations and allow teachers to monitor and control content generation. Holmes et al. (2021) stressed that ethical governance frameworks are essential to ensure responsible AI use in education. Furthermore, Baker and Smith (2019) recommend continuous auditing of AI systems to identify linguistic and cultural biases, which is particularly important in French language teaching where cultural accuracy and linguistic diversity are fundamental.

Addressing the problem of changing teacher roles and insufficient professional readiness through continuous professional development and AI literacy training

Challenges associated with changing teacher roles and insufficient professional readiness can be addressed through continuous professional development and AI literacy training for French language teachers. Training programs should focus on helping teachers critically evaluate AI outputs, integrate AI tools pedagogically, and maintain their central role as facilitators of learning. Pokrivčáková (2020) highlighted that teacher preparedness is a key determinant of successful AI adoption in foreign language education. Likewise, Kessler (2018) argues that empowering teachers with technological and pedagogical competence ensures AI functions as a supportive instructional aid rather than a replacement for human expertise in French classrooms.

Addressing the AI's limitations in developing productive skills such as speaking and writing in French, through combination of AI tools with interactive, human-centered learning approaches

To overcome AI's limitations in developing productive skills such as speaking and writing in French, AI tools should be combined with interactive, human-centered learning approaches. AI-generated practice should be supplemented with peer interaction, oral presentations, role-plays, and teacher-led feedback to ensure authentic communicative engagement. Golonka et al. (2014) emphasize that technology is most effective in language learning when it supports, rather than substitutes, real communicative practice. Similarly, Warschauer and Kern (2000) note that social interaction and cultural context remain essential for developing communicative competence, suggesting that AI must be integrated into collaborative learning environments for effective French language acquisition.

Addressing unreliable or inaccurate AI-generated content through human supervision, critical evaluation, and the promotion of learner metacognitive skills

The challenge of unreliable or inaccurate AI-generated content can be mitigated through human supervision, critical evaluation, and the promotion of learner metacognitive skills. Teachers should review AI outputs before classroom use and train learners to question and verify AI-generated French language content. Brown et al. (2020) acknowledge that while AI language models are powerful, they are prone to generating plausible but incorrect information, necessitating human oversight. Additionally, Petersen and Ostendorf (2022) argue that fostering critical digital literacy among learners reduces overdependence on AI and helps prevent the fossilization of linguistic errors in foreign language learning.

CONCLUSION

Artificial intelligence has significantly reshaped the teaching of French as a Foreign Language by promoting personalized learning, interactive instruction, and immediate feedback. AI tools enhance learners' pronunciation, vocabulary acquisition, and independent practice, making language learning more flexible and engaging. However, challenges such as limited teacher expertise, ethical concerns, and excessive dependence on technology remain evident. Issues of accessibility and unequal digital infrastructure also hinder effective AI integration. Therefore, a balanced pedagogical approach that combines AI tools with human instruction is essential. When thoughtfully implemented, AI can sustainably support and enrich French as a Foreign Language teaching and learning.

RECOMMENDATIONS

- AI tools should be integrated as supportive instructional aids rather than replacements for teachers. A balanced blend of AI-driven learning and traditional classroom interaction will preserve the human element essential for effective language acquisition.
- Educational institutions should provide continuous professional development to help French Language teachers understand, evaluate, and effectively use AI tools. This will reduce resistance to technology and improve instructional outcomes.

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