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The Use of Information and Communication Technologies in Teaching Russian as a Foreign Language: The University of Oran 2 (Algeria) as a Case Study.

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Abstract:

This paper explores the integration of Information and Communication Technologies (ICT) and Artificial Intelligence (AI) in the teaching of Russian as a Foreign Language (RFL) at the University of Oran 2 Mohamed Ben Ahmed, Algeria. Within the broader context of Algeria's ongoing digital transformation in higher education and the university's active involvement in Russian educational initiatives, the study examines the extent to which ICT tools, including the Moodle learning management system, multimedia resources, and AI-powered applications, can enhance learner motivation and improve educational effectiveness compared with traditional teaching methods.

Drawing on institutional documents, published research on e-learning at the University of Oran 2, and reports from Russian language instructors in Algeria, the analysis identifies both significant opportunities and persistent structural challenges. The findings suggest that the integration of ICT at the University of Oran 2 has substantially improved accessibility, flexibility, and the availability of learning resources. Furthermore, the establishment of the Russian Language Center in 2025 reflects a strategic institutional commitment to the development of Russian language education. Nevertheless, technological limitations, insufficient training, and the irreplaceable role of human interaction in language acquisition moderate claims that technology can serve as a substitute for traditional pedagogical approaches. The paper concludes that a hybrid model, in which ICT and AI complement rather than replace teacher-led instruction, offers the most practical pathway toward sustainable improvement in Russian language teaching at the University of Oran 2.

Keywords : Information and Communication Technologies (ICT); Teaching; Russian Language; Motivation; E-Learning; Moodle; Artificial Intelligence; Digitalization. Oran 2 (Algeria).

1. Introduction:

1.1 Definition of Teaching :

Teaching is a purposeful and organized activity aimed at facilitating the acquisition of knowledge, the development of skills, and the shaping of learners' attitudes. From a linguistic perspective, the concept encompasses both the act of teaching and the process of learning, forming an inseparable and interactive whole. In the context of higher education, teaching goes beyond the mere transmission of information to include the development of critical thinking, autonomous learning, and intercultural communicative competence. As contemporary educational theories increasingly emphasize learner-centered approaches, the role of the teacher has evolved from that of an unquestioned authority to that of a facilitator, designer, and mediator of learning experiences.

1.2 Traditional and Modern Approaches:

Traditional foreign language teaching methodologies, represented by the Grammar-Translation Method and the Audio-Lingual Method, prioritized the systematic teaching of grammar, memorization, and pattern drills. These approaches positioned the teacher as the central authority and the learner as a relatively passive recipient of knowledge. Although effective in developing reading proficiency and metalinguistic awareness, they often failed to foster communicative competence or sustain learner motivation.

Since the late twentieth century, Communicative Language Teaching (CLT), Task-Based Language Teaching (TBLT), and action-oriented approaches have gained increasing prominence. These approaches emphasize authentic language use, learner initiative, and meaningful interaction. The emergence of digital technologies in the twenty-first century has further expanded pedagogical possibilities, giving rise to Technology-Enhanced Learning (TEL) as a distinct educational model.

ICT and AI tools now provide opportunities for personalized instruction, immediate feedback, multimedia input, and access to authentic materials that were previously unimaginable within traditional educational frameworks.¹

1.3 The Digitalization of Society and Education:

Digitalization has penetrated nearly every aspect of contemporary life, and education is no exception. In Algeria, higher education institutions have gradually adopted digital platforms and e-learning strategies, a process that accelerated significantly during the COVID-19 pandemic. The University of Oran 2 Mohamed Ben Ahmed has positioned itself as an active participant in this transformation through the implementation of the Moodle learning management system and the development of distance learning infrastructure.

Nevertheless, as research on e-learning in Algeria has consistently demonstrated, digital transformation continues to face substantial obstacles, including inadequate infrastructure, limited resources, and gaps in teacher and student training.

Within this broader context, the teaching of Russian as a Foreign Language occupies a distinctive position. Russian is taught at several Algerian universities, and interest in the language has grown steadily as a result of expanding educational and economic cooperation between Algeria and Russia. The recent establishment of Russian language centers, including the center inaugurated at the University of Oran 2 in November 2025, reflects a strategic investment in this field.

2. Research Question:

This study addresses the following research question:

To what extent can the integration of Information and Communication Technologies (ICT) and Artificial Intelligence (AI) in the teaching of Russian at the University of Oran 2 enhance learner motivation and learning effectiveness compared with traditional teaching methods ?

This question is framed by two competing considerations. On the one hand, ICT and AI tools are expected to increase learner motivation through interactive activities, personalization, and immediate feedback, while also improving access to authentic learning materials. On the other hand, the effectiveness of technology integration depends on institutional conditions, teacher readiness, and learner characteristics, which may not always be equally favorable. Through the specific case of the University of Oran 2, this paper seeks to provide a balanced assessment that acknowledges both the transformative potential and the continuing limitations of technology-enhanced Russian as a Foreign Language (RFL) instruction.

3. Discussion:

3.1 Definition of Information and Communication Technologies (ICT):

Information and Communication Technologies (ICT) refer to the full range of technological tools and systems used to create, store, process, and transmit information. In educational contexts, ICT encompasses hardware such as computers, projectors, and interactive whiteboards; software platforms such as learning management systems and video-conferencing tools; online resources including digital libraries and databases; as well as mobile applications. UNESCO categorizes ICT integration in education into four stages: emerging, applying, infusing, and transforming, emphasizing that the depth of integration should be aligned with pedagogical objectives rather than driven solely by technological innovation.

3.2 Advantages of ICT and Artificial Intelligence:

3.2.1 Personalized Learning and Immediate Feedback:

One of the principal advantages of AI-powered educational tools is their ability to adapt to the needs of individual learners. Intelligent tutoring systems can analyze patterns of errors and learning pathways, adjusting both task difficulty and content accordingly. Generative AI tools, such as ChatGPT, provide immediate feedback on written and spoken production, enabling learners to revise and improve their performance beyond the classroom environment. Research on AI-mediated language learning has documented improvements in cognitive load management, learner autonomy, and motivation within AI-enhanced learning settings.²

3.2.2 Motivational and Affective Benefits:

AI-mediated language learning offers distinctive affective advantages. Comprehensive reviews of informal AI-assisted language learning have shown that these tools can uniquely enhance affective outcomes by providing psychologically safe spaces for practice, encouraging risk-taking, and fostering self-confidence in ways that earlier technologies and even peer-learning communities were often unable to achieve. Generative AI tools have also been found to promote learner motivation and communicative competence in language classrooms. Nevertheless, learners frequently express concerns regarding excessive dependence on such technologies and their limited ability to capture cultural and emotional nuances.³

3.2.3 Multimedia Resources and Authenticity:

ICT provides unprecedented access to multimedia resources, including videos, audio materials, interactive exercises, and virtual reality scenarios. These resources expose learners to authentic or near-authentic language use. In the teaching of Russian, visual materials have proven particularly effective. At the Russian Language Center of the University of Algiers 2, instructors use Russian and Algerian animated films to explain Russian verbs of motion, helping students understand

¹ Alexandre Magno FERNANDES Moreira On the concept of teaching and learning.

https://www.researchgate.net/publication/395994277_On_the_concept_of_teaching_and_learning

² - <https://www.unesco.org/en/query-list/i/information-communication-technologies>

³ Differential Effects of Graduate Students' Motivational Orientations and Motivational Strategy Interventions on Learning Outcomes. (2024). ERIC, EJ1448374.

distinctions that do not exist in Arabic. This approach demonstrates how visually supported instruction can address specific linguistic challenges that are often difficult to explain through traditional teaching methods alone.

3.2.4 University 4.0 and Institutional Transformation:

The concept of University 4.0 describes the systematic transformation of higher education institutions in response to the Fourth Industrial Revolution. Its key characteristics include the integration of artificial intelligence and data science into academic governance, pedagogy, and research; data-driven governance and adaptive learning personalization; and the application of technology across multiple domains. University 4.0 is not merely a process of technological modernization but rather a conceptual reconstruction of educational, research, and governance systems.

The University of Oran 2 is currently undergoing this transformation. The institution employs the Moodle learning management system as its primary digital platform, supporting online course delivery, assessment, and academic progress monitoring. The Faculty of Foreign Languages, which includes the Russian Department, has integrated Moodle into its educational practices. Dedicated "Moodle Days" are organized for first-year students to familiarize them with the tools and procedures of distance learning. The university administration has further demonstrated its commitment to e-learning through its Distance and Televised Education Department, coordinated by an engineer and supported by a faculty-level distance learning unit.

A significant institutional development occurred on 17 November 2025 with the inauguration of the Open Russian Language Education Center at the University of Oran 2. Established in cooperation with Naberezhnye Chelny State Pedagogical University (NGPU) and supported by the Russian Ministry of Education, the center is the fourth institution of its kind in Algeria. It aims to provide free Russian language instruction to at least 300 Algerian citizens annually while also organizing cultural and educational activities. Located in the university's central library, the center is led by a Russian language instructor appointed by NGPU.¹

3.3 Approaches to Teaching Russian as a Foreign Language:

Teaching Russian as a Foreign Language (RFL) presents distinctive linguistic challenges. The Russian grammatical system, including its case system, verbal aspect, and verbs of motion, differs substantially from Arabic, creating specific difficulties for Algerian learners. At the University of Oran 2, Russian is taught within the Faculty of Foreign Languages to students of the Russian Department, as well as through the Open Education Center for a broader audience.

From a pedagogical perspective, instructors are increasingly adopting communicative approaches that prioritize oral communication over grammatical perfection. Elena Kolyagina, a Russian language instructor at the University of Algiers 2 participating in the "Russian Language Teacher Abroad" program, summarizes this philosophy as follows:

"The most important goal is to encourage students to speak and communicate. Very few people need perfect written grammar unless they are linguists. People learn a language in order to communicate."

One of the most specific challenges in the Algerian context concerns the teaching of Russian verbs of motion. As Elena Kolyagina explains:

"In Arabic, there is no distinction between going on foot and going by means of transport. Moreover, there is no difference between walking and riding. Everything is expressed through the same word."

This linguistic gap requires creative pedagogical solutions, many of which can be facilitated through ICT resources.

3.4 Integrating Modern Technologies into Foreign Language and Russian Language Teaching²

3.4.1 The Internet and Multimedia Resources :

The Internet provides an extensive range of authentic materials for teaching Russian as a Foreign Language, including Russian news websites, YouTube videos, podcasts, and social media content. At the Russian Language Center of the University of Oran 2, visual materials are actively utilized in the teaching process.

As previously mentioned, animations and videos are used to illustrate verbs of motion in context. As Elena Kolyagina explains:

"We describe what the characters are doing, where they are going, where they are coming from, and whether they are walking, running, or riding."

This approach uses visual storytelling to make abstract grammatical distinctions more concrete and accessible to learners.

3.4.2 Learning Management System: Moodle:

Moodle serves as the central digital infrastructure for e-learning at the University of Oran 2. The platform is widely used within the Faculty of Foreign Languages, including for English language instruction across all language departments, namely French, Spanish, German, and Russian, at both undergraduate (L1, L2, L3) and master's (M1, M2) levels. Students access course materials through their Moodle accounts, and the platform supports a variety of activities, including discussion forums, quizzes, assignments, and integrated multimedia content.

Research specifically examining the role of Moodle at the University of Oran 2 has documented both its benefits and its limitations. A study conducted by Chahrour (2024) on the experiences of Algerian students in the Faculty of Foreign Languages found that Moodle improved access to education and expanded opportunities for distance learning. Students identified flexibility and ease of access to learning materials as the platform's primary strengths.

¹ University of Oran 2 Mohamed Ben Ahmed. (n.d.). Official Website. <https://www.univ-oran2.dz/>

² Nihao Eluosi. (2026, August 19). Teaching Russian in Algeria: A Russian Teacher's North African Classroom. <https://nihaoeluosi.cn/education/254934-russian-teacher-abroad>

However, the same study highlighted several significant drawbacks, including limited social interaction, technological barriers, and motivational challenges. It also pointed to technical difficulties and the need for additional training for both instructors and students as continuing obstacles to effective implementation.¹

3.4.3 Applications and Artificial Intelligence Tools:

Duolingo offers a gamified approach to learning Russian and is particularly suitable for beginners seeking to develop basic vocabulary and foundational language structures. Its low entry barrier and mobile-friendly design support flexible, intermittent learning, although it lacks the depth required by advanced learners.

Google Translate and DeepL function as useful translation aids for rapid comprehension and the revision of written texts. Nevertheless, excessive reliance on these tools may undermine learners' motivation to develop independent comprehension and production skills.

Generative AI tools such as ChatGPT, DeepSeek, and Perplexity provide opportunities for conversational practice, text revision, grammar explanation, and cultural inquiries. Research suggests that generative AI can enhance learner motivation and communicative competence in language classrooms. However, learners continue to express concerns regarding content accuracy, overreliance on AI systems, and the limited capacity of these tools to capture cultural and emotional subtleties.

YouTube offers a vast repository of authentic Russian-language video content, ranging from educational channels to Russian films and television programs. At the Russian Language Center of Oran 2, videos are used to illustrate verbs of motion and to develop learners' phonological awareness.²

3.5 Teaching Russian at the University of Oran 2:

The institutional framework for teaching Russian at the University of Oran 2 has undergone significant development in recent years. The Russian Department within the Faculty of Foreign Languages offers undergraduate programs in Russian Language and Literature. The faculty administration maintains communication with students enrolled in the Russian program through official channels and integrates them into the broader e-learning ecosystem that encompasses all language departments.

A major milestone was the establishment of the Open Russian Language Education Center. On 17 November 2025, a Russian delegation headed by Andrey Korneev, State Secretary and Deputy Minister of Education of the Russian Federation, and Elvinur Galyakberova, President of Naberezhnye Chelny State Pedagogical University (NGPU), participated in the official inauguration ceremony at the University of Oran 2. The center operates from the university's central library and is staffed by a Russian language instructor from NGPU. Enrollment is open to faculty members, university staff, students, and the general public, and all courses are offered free of charge.

The creation of the center is part of a broader educational network. NGPU has established four similar centers in Algeria, located in Oran 1, El Oued, Biskra, and now Oran 2, under six cooperation agreements between NGPU and Algerian universities. Future plans include equipping Russian language classrooms at Oran 2 with additional modern equipment, educational materials, and audiovisual resources.³

3.6 ICT as a Motivational Tool in Learning Russian:

Motivation is widely recognized as a crucial factor in successful foreign language acquisition. Research consistently demonstrates that highly motivated learners outperform those with low self-confidence and that autonomy-supportive motivational strategies contribute to better academic performance and overall well-being. ICT influences learner motivation through several mechanisms.

Accessibility and flexibility: Learners can access educational materials anytime and anywhere. The Moodle mobile application allows students at Oran 2 to browse course content, receive notifications, submit assignments, and check grades directly from their smartphones.

Gamification and achievement: Moodle provides immediate feedback through grade tracking and activity completion monitoring. Quiz modules and game-based features, including Quizizz integration, can transform assessment into engaging challenges.

Low-anxiety learning environments: AI-powered conversational tools offer judgment-free practice spaces, reducing the anxiety commonly associated with oral language production. Studies indicate that AI-mediated learning creates psychologically safer conversational environments that encourage risk-taking and foster self-confidence.

Authenticity and relevance: Access to contemporary Russian media, social networks, and cultural content connects language learning with real-world contexts, thereby increasing learners' perception of relevance and usefulness.

¹ Chahrour, N. (2024). The role of Moodle in foreign language teaching: Experiences and perspectives of Algerian students in the Foreign Languages Faculty at the University of Oran 2. *Langues & Cultures*, 5(2), 462–471. <https://asjp.cerist.dz/en/article/256876>

² Ministry of Education of the Russian Federation. (2025, November 17). The fourth Center for Open Education in Russian has been established in Algeria. <https://edu.gov.ru/press/10732/>

³ Naberezhnye Chelny State Pedagogical University. (2025, November 19). As part of the state assignment from the Russian Ministry of Education, NSPU continues to equip Russian language classrooms at the University of Oran 2. https://tatngpi.ru/about_the_university/news/11267/

The Russian Language Center at Oran 2 demonstrates a unique motivational dynamic. Since instruction is provided free of charge, learners are not primarily motivated by financial considerations. As Elena Kolyagina observes:

"The courses at the center are free, which means that students are driven not by financial motives but by genuine interest. Moreover, this interest continues to grow year after year."

Nevertheless, maintaining this intrinsic motivation remains challenging, as many learners struggle to balance Russian language studies with their primary university programs, leading in some cases to learner attrition¹

3.7 The Role of ICT and Artificial Intelligence in Teaching and Learning Russian:

ICT and AI play multiple roles in the teaching of Russian as a Foreign Language at the University of Oran 2.

Resource provision: The Internet and digital libraries provide access to authentic Russian-language materials. The university's central library, which hosts the Russian Center, serves as both a physical and digital access point for learning resources.

Training platform: Moodle supports a wide variety of learning activities, ranging from conventional quizzes to interactive multimedia content. AI-powered platforms additionally offer structured learning pathways and individualized practice opportunities.

Feedback mechanism: AI tools provide immediate and personalized feedback. Intelligent tutoring systems analyze learner errors and recommend corrective actions, while generative AI can evaluate written and oral language production in real time.

Cultural mediation: Videos, podcasts, and virtual exchange projects bring Russian culture into the classroom. The presence of four Russian students spending a semester at the University of Oran 2, alongside the visiting delegation in November 2025, creates opportunities for authentic intercultural interaction.

Teacher support: AI tools can assist instructors in designing diverse teaching materials and adapting the difficulty level of texts to learners' needs. Such support may reduce workload and allow teachers to devote more attention to the design and management of the learning process.²

3.8 Disadvantages and Limitations of ICT and Artificial Intelligence in Teaching Russian:

Despite their many advantages, the integration of ICT and AI at the University of Oran 2 faces several significant challenges.

Infrastructure and resource limitations: Algerian higher education continues to experience infrastructural shortcomings. Research on e-learning in Algeria identifies technical infrastructure problems and insufficient training for both teachers and students as persistent issues. Although Moodle is widely used, network instability and unequal access to devices may limit the learning experience for some students.

Gaps in teacher training: Effective ICT and AI integration requires Technological Pedagogical Content Knowledge (TPACK). The documented need for training both teachers and students at the University of Oran 2 suggests that systematic professional development remains incomplete.

Overreliance and cognitive risks: The convenience of AI tools may encourage dependency, potentially undermining independent thinking. In language learning, excessive reliance on Google Translate or DeepL can hinder the development of autonomous comprehension and production skills.

The irreplaceable value of human interaction: Despite technological advances, authentic interpersonal communication remains indispensable. Research on e-learning at Oran 2 explicitly identifies a lack of social interaction as one of its major weaknesses. Elena Kolyagina emphasizes that practice and dialogue are essential components of language instruction, aspects that technology can support but cannot fully replicate.

Content accuracy and cultural nuance: Generative AI systems may occasionally produce inaccurate information, a risk that becomes more pronounced when learners lack the expertise needed to evaluate outputs critically. Furthermore, AI tools often struggle to capture subtle cultural meanings and emotional nuances.

Uneven language coverage: AI-based language learning tools remain heavily oriented toward English. Although platforms such as Duolingo and ChatGPT support Russian, the depth of content and the quality of available datasets generally lag behind those developed for English-language learning.

Lack of instructional materials: Russian language instructors in Algeria have reported a severe shortage of modern classroom equipment. Teachers frequently lack access to projectors, interactive whiteboards, computers, and audio systems needed for listening comprehension training. Furthermore, there is a shortage of textbooks specifically designed for Arabic- and French-speaking learners, as well as a limited availability of Russian children's literature.³

4. Conclusion :

¹ Burca, G., Bath, H., Meamar, A., et al. (2025). Does Academic Led Motivation Help with Student Confidence, Attainment and Development of Life Skills? *New Directions in the Teaching of Natural Sciences*, (vol. 20, n° 1)

² Khasanova Dilfuza Mukhtarovna. The role of artificial intelligence tools in teaching the Russian language: *THEORY OF SCIENTIFIC RESEARCHES OF WHOLE WORLD*. Vol. 2 No. 5 (2025)

³ Larissa Krymova .Artificial intelligence technologies in teaching Russian as a foreign language. *International Journal of Evaluation and Research in Education (IJERE)*Vol. 15, No. 4, August 2026, pp. 3422~3438

This study has explored the integration of Information and Communication Technologies (ICT) and Artificial Intelligence (AI) into the teaching of Russian at the University of Oran 2, addressing the question of whether these technologies can enhance learner motivation and learning effectiveness in comparison with traditional teaching methods.

The answer to this research question is necessarily conditional. Evidence suggests that the integration of ICT and AI at the University of Oran 2 has significantly improved accessibility, flexibility, and the availability of learning resources in Russian language instruction. The Moodle platform provides a centralized infrastructure for course delivery and assessment, while the establishment of the Russian Language Center in November 2025 represents a substantial institutional investment. This investment extends beyond the provision of educational resources to include material support for classroom equipment. Together, these developments create favorable conditions for enhancing both learner motivation and educational outcomes.

Nevertheless, the findings also indicate that technology integration remains constrained by persistent structural factors. Research on e-learning at Oran 2 has identified technical challenges, the need for additional training, limited social interaction, and motivational difficulties as significant obstacles. More broadly, the Algerian higher education context continues to be characterized by infrastructural deficiencies and limited resources. Furthermore, the Russian language teaching community in Algeria has documented shortages of equipment, teaching materials, and professional development opportunities.

Consequently, the most reasonable conclusion is that ICT and AI function most effectively as complementary tools rather than substitutes for traditional teacher-led instruction in the context of Russian as a Foreign Language at the University of Oran 2. The human dimension of language learning, including authentic dialogue, cultural mediation, motivational support, and adaptive pedagogical judgment, remains irreplaceable. The contribution of technology lies in extending educational opportunities, improving instructional efficiency, facilitating practice beyond classroom hours, and providing access to authentic materials that might otherwise be unavailable.

For the University of Oran 2 in particular, the establishment of the Russian Language Center, supported by Russian institutional partners, provides a strong foundation for continued development. Future priorities should include systematic teacher training in Technological Pedagogical Content Knowledge (TPACK), the development of instructional materials tailored to the needs of Arabic- and French-speaking learners, further investment in classroom technological infrastructure, and the careful evaluation of ICT integration outcomes to ensure that technology serves pedagogical objectives rather than becoming an end in itself.

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