

ARTIFICIAL INTELLIGENCE AND THE FORMATION OF LINGUISTIC IDENTITY AMONG FOREIGN LANGUAGE LEARNERS: BETWEEN DIGITAL SIMULATION AND HUMAN COMMUNICATION

Dr. Nabila Nabil Tokhy Kandil

Tashkent State University of World Languages

Email: Nabilaeltokhyy@gmail.com

Abstract: This study examines how generative AI may influence the linguistic identity of foreign language learners. It focuses on learners' confidence, autonomy, and personal voice, while comparing digital simulation with human communication. The study concludes that AI is most effective when used as a supportive tool rather than a substitute for real human interaction.

Keywords: Artificial intelligence, linguistic identity, foreign language learning, digital simulation, human communication.

Annotatsiya: Ushbu tadqiqot generativ sun'iy intellektning xorijiy til o'rganuvchilarining lingvistik identitetiga ta'sirini tahlil qiladi. Unda o'rganuvchining ishonchi, mustaqilligi va shaxsiy nutq uslubi, shuningdek, raqamli simulyatsiya va insoniy muloqot o'rtasidagi farq ko'rib chiqiladi. Tadqiqot sun'iy intellektni insoniy muloqot o'rnini bosuvchi emas, balki uni qo'llab-quvvatlovchi vosita sifatida qo'llash zarurligini ta'kidlaydi.

Kalit so'zlar: sun'iy intellekt, lingvistik identitet, xorijiy til o'rganish, raqamli simulyatsiya, insoniy muloqot.

Аннотация: В статье рассматривается влияние генеративного искусственного интеллекта на языковую идентичность изучающих иностранный язык. Особое внимание уделяется уверенности, самостоятельности и индивидуальному языковому голосу учащегося, а также различиям между цифровой симуляцией и человеческим общением. Делается вывод, что искусственный интеллект должен дополнять, а не заменять реальное человеческое взаимодействие.

Ключевые слова: искусственный интеллект, языковая идентичность, изучение иностранных языков

Introduction: Learning a foreign language is not limited to acquiring vocabulary and grammar. It also affects how learners begin to express themselves

and how they see their place within a new linguistic and cultural space. From this perspective, linguistic identity has become an important concern in language learning research because it is tied to learners' sense of self, confidence in communication, and ability to participate in real social situations. Darwin and Norton (2015) describe identity not as a fixed structure, but as something that is continually shaped by experience, interaction, and access to opportunities for language use.

In recent years, the learning environment itself has changed with the rapid spread of generative artificial intelligence. Learners no longer depend only on teachers, textbooks, and classmates. They can now hold extended conversations with AI systems, ask for corrections, request simpler explanations, or simulate specific communicative situations. Qiao, Gu, and Lu (2025) show that AI applications are increasingly present in language education, especially in writing, speaking, and feedback, while also stressing that their effectiveness depends on how they are integrated into learning rather than on the technology alone.

These tools can create opportunities for practice when a human language partner is not available. They may also help hesitant learners try again without the embarrassment they sometimes feel in front of others. Karataş et al. (2024) report potential benefits of ChatGPT for writing, grammar, vocabulary, motivation, and engagement. At the same time, an important question remains: what happens when interaction with an intelligent system becomes a major part of a learner's everyday language practice?

If linguistic identity develops through use and interaction, AI's ability to imitate dialogue creates a new space that deserves careful attention. Digital simulation may support confidence and autonomy, but it does not necessarily reproduce the same social, cultural, and emotional experience as communication between people. The central challenge, therefore, is to benefit from AI as a space for practice and experimentation without allowing it to replace the learner's own voice or the human interaction that gives language its social meaning.

Linguistic identity.

Research Problem: Artificial intelligence can now perform functions once associated mainly with a teacher or a conversation partner: it responds, corrects, suggests, and sustains dialogue. Yet similarity in the form of conversation does not mean that a digital exchange is equivalent to human communication, which includes emotion, cultural context, relationships, and unpredictable responses.

The problem addressed in this paper is whether repeated interaction with AI can support linguistic identity by increasing confidence and autonomy, or

whether frequent reliance on AI-generated wording may weaken the learner's personal voice. The study therefore does not frame the issue as a choice between humans and machines. Instead, it asks where digital simulation can genuinely support real communication without becoming a substitute for it.

Main research question: How does the use of artificial intelligence affect the formation of linguistic identity among foreign language learners, and what is the relationship between digital simulation and human communication in this process?

- ❖ How can AI influence learners' confidence, autonomy, and linguistic voice?
- ❖ What can digital simulation provide, and which dimensions are still better supported by human communication?
- ❖ How can technology be used in a balanced way without creating excessive dependence on it?

Significance of the Study. The significance of this study lies in bringing together three closely related areas: foreign language learning, linguistic identity, and artificial intelligence. Much of the discussion surrounding AI in education concentrates on performance, speed, and correction. This paper shifts attention to what happens to the learner: confidence, voice, and self-perception as a user of the new language. The analysis may also help teachers and course designers use AI for practice and revision while preserving meaningful opportunities for human interaction.

Objectives, Method, and Scope. The study aims to clarify the relationship between AI and linguistic identity, examine the influence of digital interaction on confidence, autonomy, and personal voice, and identify possible forms of integration between simulation and human communication. It adopts a descriptive-analytical approach based on recent research and relates the findings of previous studies to the central problem. The paper focuses on generative AI and conversational tools used in foreign language learning and does not include a field experiment.

Theoretical Framework. 1. Linguistic Identity in Foreign Language Learning. Linguistic identity develops gradually through language use and cannot be separated from learners' experiences, ambitions, and relationships with others. A new language does not simply provide new words; it creates new possibilities for participation and self-expression. In the model proposed by Darwin and Norton (2015), language learning is closely related to investment:

learners commit time and effort because they expect the language to give them access to particular forms of participation, belonging, and future possibility.

In this paper, linguistic identity is understood as a dynamic relationship among the learner, the language, and the context in which it is used. It can be seen in the extent to which learners feel that their words represent them, in their ability to make their own linguistic choices, and in the future image they hold of themselves as language users. Liu, Darwin, and Ma (2024) likewise show that the ideal L2 self is associated with engagement in AI-mediated digital learning.

2. Artificial Intelligence and the Transformation of Language Practice.

Generative AI differs from earlier digital tools because it can participate in direct, adaptive dialogue. Learners can ask for corrections, explanations, or simulations of professional and social situations, extending language practice beyond the classroom. Yet these possibilities do not automatically produce learning. A learner may receive a polished sentence without understanding the original problem or learning how to produce a better alternative independently. Qiao, Gu, and Lu (2025) therefore emphasize the importance of instructional design and the way AI is integrated into actual learning activity.

3. AI and the Formation of Linguistic Identity. AI can provide a relatively low-pressure environment in which learners experiment, repeat, and revise. This can be especially helpful for those who hesitate to speak in front of others. Repeated successful practice may strengthen confidence and gradually change how learners see themselves: from people who are merely studying a language to people who can actually use it.

At the same time, personal voice becomes a central issue. Alternative phrasings can expand a learner's choices when the learner remains the decision-maker. The situation changes, however, when the system repeatedly formulates ideas on the learner's behalf. Darwin (2025) discusses this relationship through the idea of distributed agency and stresses the importance of keeping learners actively involved in producing meaning. Zhong, Lai, and Liu (2026) similarly show that technology and identity influence each other: digital environments may open spaces for new linguistic identities, while learners' values, experiences, and goals shape how those spaces are used.

4. Digital Simulation and Human Communication. Digital simulation offers a clear advantage: learners can practice at any time, repeat a situation, change the level of difficulty, and prepare for scenarios that may be difficult to arrange regularly, such as a job interview, travel encounter, or academic

discussion. In this sense, AI can provide a useful space for preparation and experimentation.

Human communication, however, involves more than the production of a correct sentence. It is shaped by emotion, social relationships, cultural expectations, misunderstanding, and unpredictable responses. In real interaction, learners often have to adjust, reformulate, and negotiate meaning. Godwin-Jones (2024) notes that generative models create substantial new opportunities for language practice, but their statistical nature places limits on how fully they can engage with subtle social and cultural meaning. For this reason, integration rather than replacement offers the most balanced approach: digital simulation can prepare learners for communication and help them reflect afterward, but it should not become the only environment in which the language is used.

How AI May Shape Linguistic Identity. 1. Confidence and Fear of Error. Fear of making mistakes can reduce participation even when learners possess adequate linguistic knowledge. Conversation with an AI system offers a setting in which learners can retry an answer or request correction without feeling that they are slowing down a group or being judged in public. This can be valuable at early stages because it allows learners to accumulate small experiences of success. Yet confidence developed in a digital setting ultimately needs to transfer to real communication. The goal is not simply to feel comfortable with a system, but to use that confidence when interacting with people.

2. Learner Autonomy. AI gives learners considerable freedom to choose when to study, what to discuss, and how difficult the task should be. They can request additional examples, revisit unclear points, and build practice around individual needs. This flexibility can support a more active form of learning. Still, autonomy is more than access to instant answers. Genuine autonomy appears when learners understand, evaluate, and make decisions about what they receive. If the system always chooses the wording, constructs the sentences, and determines the meaning, convenience can gradually turn into linguistic dependence.

3. Linguistic Voice and Personal Expression. As learners progress, they need to find ways to say what they genuinely mean, not merely what is grammatically acceptable. Linguistic voice is linked to choice, style, and the feeling that the new language has begun to represent the learner's personality and point of view. AI can support this process when it offers several options and the learner compares them, notices the differences, and decides which one fits best. But if the learner routinely hands an idea to the system and adopts the resulting

formulation without reflection, the sentence may become more accurate while becoming less connected to its author. The learner therefore needs to remain both the starting point and the final decision-maker in the act of expression.

4. The Learner's Future Identity. Linguistic identity is also shaped by the future self that the learner imagines. A learner may picture being a student in an academic discussion, an employee using the language at work, or a traveler handling everyday situations with confidence. Liu, Darwin, and Ma (2024) show that the ideal L2 self is related to engagement in AI-mediated digital learning. Simulation can help turn some of these imagined futures into practice scenarios before they occur in real life. Even so, the identity remains incomplete until learners test themselves in situations involving real people, cultures, and contexts that they cannot fully control.

Discussion: Between Support and Dependence. The literature suggests that the main issue is not whether AI is used, but where it is placed within the learning experience. When it is used to practise, compare alternatives, and understand errors, it can support autonomy. When it becomes the permanent source of wording and choice, assistance may turn into dependence and learners may participate less in producing their own language.

This tension is especially visible in linguistic identity. A safe digital environment can strengthen confidence and self-perception, but identity is not formed in digital dialogue alone. It also develops through contact with other people and with real cultural and social situations. The most productive use of AI therefore leaves room for choice, interpretation, and revision. A learner can produce an idea first and then compare it with AI suggestions, or practise a situation digitally before using the language in actual interaction. In this way, technology becomes a bridge to language use rather than a substitute for it.

Results:

- AI can expand opportunities for practice, repeated training, and rapid feedback, and may reduce fear of error for some learners.
- When used deliberately, AI can support confidence, autonomy, and a more positive self-image as a language user.
- Digital simulation does not reproduce all the social, cultural, and emotional dimensions of genuine human communication.
- The effect of AI on linguistic identity depends on how it is used: it can support personal voice when the learner remains the decision-maker, but it can increase dependence when the system produces meaning on the learner's behalf.

- A combination of digital practice and human communication offers the most balanced path toward a language-learning experience that preserves learner agency.

Conclusion. Artificial intelligence is now part of the reality of language learning. The relevant question is therefore no longer whether the technology should be accepted or rejected, but how it should be used. The analysis in this paper suggests that AI can support learners through dialogue, correction, and simulation, but these possibilities do not remove the need for human contexts in which language is used to express the self and build relationships.

The real value of AI lies in helping learners reach a point where they can use the language independently and confidently, not in speaking on their behalf. The formation of linguistic identity therefore requires a balance that protects the learner's voice, uses technology for experimentation and reflection, and preserves human communication as the space in which language acquires its fullest social and personal meaning.

Recommendations:

- ❖ Use AI tools for practice, revision, and feedback while avoiding full reliance on them for idea generation and final wording.
- ❖ Maintain direct communicative activities among learners, teachers, and speakers of the target language, and connect digital training with real situations.
- ❖ Help learners distinguish between benefiting from AI suggestions and delegating expression and decision-making to the system.
- ❖ Conduct future field studies on the long-term influence of AI use on linguistic identity among learners of different languages, including Italian.

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