SHARING THE LANGVET – IA PROJECT: CONCEIVING LINGUISTIC AND PEDAGOGICAL CONTENT WITH THE HELP OF ARTIFICIAL INTELLIGENCE TOOLS IN THE FIELD OF VETERINARY MEDICINE

Elena VELESCU[1], Oana COGEANU-HARAGA[2], Roxana MIHALACHE[2], Liviu-Dan MIRON [1]

e-mail: ELENA.VELESCU@IULS.RO

Abstract

This article draws on the LANGVET - IA project, "Concevoir des contenus linguistiques et pédagogiques à l'aide des outils de l'intelligence artificielle (IA) dans le domaine de la médecine vétérinaire" (Conceiving linguistic and pedagogical content with the help of artificial intelligence tools in the field of veterinary medicine), coordinated by the University of Life Sciences "Ion Ionescu de la Brad" Iași, with the financial support of the Agence Universitaire de la Francophonie and developing from July 1, 2024 to August 31, 2025. The project focuses on the study and use of artificial intelligence tools to develop educational resources designed for veterinary students, by integrating them in their formal learning and practice, and their language trainers, by applying them in their teaching and research activity. The article looks into the project's methodology and partial results for the creation of online teaching and learning resources dedicated to professional communication in the field of veterinary medicine; these include trilingual (French, English, Romanian) learning units on medical vocabulary and doctor-client communication, based on an interdisciplinary (linguistic, didactic and cultural) exploration. As the LANGVET - IA project capitalizes on artificial intelligence tools to facilitate the teaching-learning process in the specialised field of veterinary medicine, this article explores its further potential for modernizing the education system.

Key words: artificial intelligence, teaching languages, veterinary medicine, research project, learning resources

The project LANGVET – IA aims to address several key needs identified in the field of linguistic education, particularly in the context of teaching French as a foreign language, while integrating new technologies and artificial intelligence (AI). First, there is a growing demand for pedagogical tools that leverage the advantages offered by modern technological advancements. This aligns with the need to update teaching methods in order to increase student engagement by enhancing the practical application of AI in language learning. Furthermore, it is increasingly important to connect the knowledge and skills acquired by students during their academic training to the labor market, where AI is becoming more prevalent.

A second essential aspect of this project is the development of transversal skills, focusing on the interaction between specialized terminology and intercultural elements, such as the representation of animals. Another key objective is the creation of multilingual glossaries that map the linguistic domain of veterinary medicine, complemented by didactic materials that deepen students' understanding.

Despite the growing relevance of AI in language instruction, there is a notable lack of terminological studies in the veterinary field, particularly those that explore multilingualism (e.g., French, English, Romanian). Addressing these gaps requires the integration of AI into teaching methodologies, equipping instructors with the necessary tools to provide students with more engaging, autonomous learning experiences. However, current resources and strategies for training educators in the use of AI are limited.

In addition to enhancing teaching practices, this project also emphasizes the importance of linking educational activities with research. All participating educators are committed to advancing both their teaching methods, and their scientific contributions through publications and academic dissemination. The dissemination of project outcomes is crucial for maintaining high-quality French education and research, especially in the international academic and scientific arena.

By combining language education, didactics, and intercultural studies, this initiative seeks to boost the visibility of French language instruction in regional universities. It will also contribute to the development of these institutions, enrich their

[1] "Ion Ionescu de la Brad" Iasi University of Life Sciences, Romania
[2] "Alexandru Ioan Cuza" University of Iasi, Romania

academic offerings, and improve the quality of teaching and research staff. This collaborative effort between French-language researchers and educators from various disciplines—such as French for specific purposes (FOS), linguistics, anthropology, veterinary medicine, and AI—will foster dialogue, innovation, and academic excellence.

MATERIAL AND METHOD

The proposed project introduces an innovative methodological approach to French for Specific Purposes (FSP) in veterinary medicine. This approach lies at the intersection of FSP didactics, linguistics, and training in new technologies, particularly artificial intelligence (AI), all within a framework of intercultural communication. The main objectives are to:

- Develop educational resources in veterinary terminology.
- Increase the participation of non-language specialist students and Modern Languages instructors from Central and Eastern Europe in international training and research, within a multicultural and multilingual context.
- Encourage the production and dissemination of knowledge related to teaching languages, supported by scientific cooperation missions and participation in scientific events.

To achieve these goals, the project emphasizes the following strategies:

1. **Recognition and standardization of tools**: we aim to align veterinary-related tools and skills with international project standards, facilitating student and researcher mobility and fostering free exchange between participants.
2. **Improvement of student skills**: the project seeks to improve student competencies in both clinical practice and the new AI-driven digital context, ensuring their preparedness for the labor market.
3. **Interdisciplinary language education**: we aim to enhance the teaching and learning of languages, promote linguistic diversity, and raise intercultural awareness in the field of veterinary medicine.
4. **Creation of multidisciplinary educational content**: the development of innovative and interdisciplinary teaching content will support students and instructors during their professional training.
5. **Enhancement of education quality**: through international cooperation, we aim to improve the quality, innovation, excellence, and international dimension of education and training at participating institutions.
6. **Language and specialty learning integration**: by integrating linguistic education with subject-specific learning, we encourage student autonomy and active participation in their learning process.
7. **Research on specialized terminology**: we will conduct research on specialized terminology in veterinary medicine, including the creation of glossaries, databases, and terminological indices, and we will develop practical skills for specific objectives in an engaging and interactive professional context.
8. **Teacher and learner competency development**: the project will improve teacher and learner competencies in transdisciplinary education using AI, increasing the quality of French for Specific Purposes (FSP) education through dedicated training workshops.
9. **Increased participation in international training**: we aim to strengthen the participation of students and teachers from Central and Eastern Europe in international training and research, within a multicultural and multilingual environment.
10. **Collaborative research and publication**: the project will produce a collective study based on shared reflections on the project outcomes and will develop educational materials for language and veterinary medicine instructors.
11. **Utilization of AI in language education**: despite its limitations, AI has the potential to revolutionize language teaching and learning. We have identified several ways to integrate AI tools into language education:

- Pedagogical resource generation: AI can generate tailored exercises, games, and other activities that enhance learning effectiveness and enjoyment;
- Error correction: AI can detect and correct grammatical, lexical, and spelling errors, helping learners improve their language mastery;
- Text generation: AI can assist learners in producing texts in French, such as letters, articles, or stories, supporting the development of writing skills.

The project is built on a collaborative partnership between educators and researchers from diverse fields, including linguistics, didactics, information engineering, and AI. The involvement of linguists and anthropologists from "Al. Philippide" Institute of Philology (Romanian Academy), together with researchers and teachers from the Faculty of Letters of Alexandru Ioan Cuza University of Iasi (Romania) and postdoctoral researchers from the University of Rijeka (Croatia), who specialize in AI integration into language learning and teaching, adds significant interdisciplinary expertise to the project.

Work Organization

The project's workflow is structured as follows:

1. Joint reflection and task sharing: a collaborative meeting to identify and assign tasks took place in July 2024;
2. Teamwork by discipline: from July 2024 to February 2025, teams work based on their areas of specialization, with common objectives and

involvement from educators across different disciplines (linguistics, FSP, etc.);

3. Teacher mobility and collaboration: between September 2024 and June 2025, educators participate in international mobility programs, scientific cooperation missions, teaching activities, and scientific events;

4. International conference organization: in March 2025, an international conference will be held in Iași, Romania;

5. Publication and dissemination: from April to July 2025, the project outcomes will be published, communicated, promoted, and made available online.

This systematic approach ensures that the project goals are met while fostering innovation, international collaboration, and academic excellence in the field of veterinary medicine, language education, and AI integration.

RESULTS AND DISCUSSIONS

The distribution of tasks among the project partners was carried out according to their professional expertise, allowing for effective collaboration and the achievement of common specific objectives. The tasks were divided into four primary areas: (I) veterinary medicine, (II) language, terminology, and translation studies, (III) language didactics and AI integration, and (IV) intercultural studies. Each partner identified a team of researchers from their institution to mutually contribute to the project's activities, ensuring a comprehensive and interdisciplinary approach.

Key activities undertaken by each team include:

Organization and participation in team meetings: regular meetings are held to coordinate the activities, share updates, and assess progress towards the project's goals. These gatherings facilitate communication and foster synergy among the partners.

Hosting and coordination of short-term mobility programs: partners host and coordinate the participation of educators and researchers in expert short-term mobility programs, which enhance knowledge exchange and provide specialized training across disciplines.

Development and publication of educational materials: teams collaborate on the creation, analysis, correction, and publication of pedagogical resources tailored to the interdisciplinary needs of the project, ensuring high-quality and relevant content.

Project presentation and dissemination: the project's outcomes are presented at workshops, study days, and international conferences, increasing visibility and promoting the diffusion of the results within the academic community.

In terms of student involvement, participants were drawn from all partner universities. Virtual working sessions and collaborative meetings were established, starting with the first gathering in July 2024. These interactions allow students to contribute to and engage with the project while working alongside their peers and instructors from different countries.

Expected Results:

The outcomes of this collaborative effort are wide-ranging and significant. The key expected results include:

Diversification and dissemination of educational, linguistic, and cultural content: the project will create and disseminate innovative educational materials that integrate language, veterinary medicine, and cultural studies.

Pedagogical advantages: the implementation of AI tools is expected to result in more engaging and effective learning environments, enhancing student motivation and performance.

Modern and motivating teaching methods: by integrating AI and information technologies, the project will offer a contemporary and dynamic teaching approach, making learning more attractive and interactive.

Learning efficiency with AI: AI-enhanced learning methods are anticipated to significantly improve the efficiency of language acquisition and veterinary terminology mastery.

Involvement of academics at risk: the project will enable academics from countries in crisis, particularly those in the AUF network, to maintain their participation in international scientific communities, ensuring the continuity of their research activities.

Promotion of French as a language of education and research: by organizing an international conference and disseminating research outcomes, the project will enhance the visibility of French as a key language for both education and scientific inquiry.

Development of specialized French education and research in veterinary medicine: the project aims to strengthen the field of specialized French language instruction, particularly within the veterinary domain, through targeted training and research initiatives.

Technology and expertise transfer: the project will facilitate the transfer of information and communication technologies (ICT) and AI expertise to the fields of language education and veterinary medicine, promoting cutting-edge innovations in these areas.

Renewal and creation of pedagogical supports: new and updated teaching materials will be developed, enriching the resources available for both language and veterinary studies.

Through this project, we aim to develop sustainable and innovative educational practices that both enhance the learning experience and increase international research and collaboration.

CONCLUSIONS

By integrating both research and training—focused on equipping students and educators with AI tools applied to language learning and veterinary medicine—this project and its interdisciplinary team will enhance the education of future specialists in life sciences. Additionally, it will increase the international visibility of French for Specific Purposes (FSP) education in regional universities by embedding cutting-edge research into a modern and sustainable teaching framework.

Project valorization strategies:

- Publication of results: the project will generate partial and final outcomes, including scientific articles, pedagogical guides, and a collective volume, ensuring broad dissemination of findings.
- Dissemination of results: participation in conferences, study days, and the publication of articles across the region will promote the project's outputs and encourage scholarly dialogue.
- Online knowledge sharing: results and educational resources will be shared through online platforms, educational websites, and partner university portals, ensuring wide accessibility.
- Development of educational resources: pedagogical materials will be made available on the online platforms of partner institutions, enhancing teaching and learning practices. A comprehensive database on veterinary terminology will be established, providing a valuable resource for students and educators.
- AI integration in language courses: AI tools will be introduced into language courses across member universities, fostering innovation in language teaching.

Through these strategies, the project aims to ensure the long-term sustainability of language education in veterinary medicine and other related fields. By leveraging online platforms, fostering international collaboration, and integrating AI into language teaching, this initiative will position itself as a reference for innovative educational practices in both the academic and professional realms.

ACKNOWLEGMENTS

This article is based on a study of the LANGVET-IA project, "Concevoir des contenus linguistiques et pédagogiques à l'aide des outils de l'intelligence artificielle (IA) dans le domaine de la médecine vétérinaire" (Conceiving linguistic and pedagogical content with the help of artificial intelligence tools in the field of veterinary medicine), coordinated by the University of Life Sciences "Ion Ionescu de la Brad" Iași, with the financial support of the Agence Universitaire de la Francophonie within the call AUF-ECO 2024 - Soutien à la recherche scientifique francophone en Europe Centrale et Orientale - RESCI-ECO, and developing from July 1, 2024 to August 31, 2025.

REFERENCES

Chen X., Xie H., Zou D., & Hwang G.-J., 2020 - *Application and theory gaps during the rise of artificial intelligence in education*. Computers and Education: Artificial Intelligence, 1, 100002. available on-line at: https://doi.org/10.1016/j.caeai.2020.100002

Grandjean T., 2023 - *Démystifier les IA génératives*, Athena Mag, vol. 364, Novembre-Décembre 2023, pp. 12-15.

Holmes W., Bialik M., & Fadel C., 2023 - *Artificial intelligence in education*. In C. Stuckelberger & P. Duggal (Eds.), Data ethics: Building trust: How digital technologies can serve humanity(pp. 621-653) available on-line at: https://repository.globethics.net/handle/20.500.12424/4273108

Karsenti T., 2019 - *Artificial intelligence in education: The urgent need to prepare teachers for tomorrow's schools*. Formation et profession, 27(1), 105, available on-line at:. https://dx.doi.org/10.18162/fp.2019.a166

Mangiante J.-M., Parpette C., 2004 - *Le Français sur Objectif spécifique : de l'analyse des besoins à l'élaboration d'un cours*. Paris, Hachette.

Ouyang F., & Jiao P., 2021 - Artificial intelligence in education: The three paradigms. Computers and Education: Artificial Intelligence, available on-line

Velescu E., 2016 - Le français à l'usage des vétérinaires et des zootechniciens. Galaţi, Europlus.