

The Project LANGVET – IA: Conceiving Linguistic and Pedagogical Content with the Help of Artificial Intelligence Tools in the Field of Veterinary Medicine

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ABSTRACT

The presentation of the ongoing project “Conceiving linguistic and pedagogical content using artificial intelligence (AI) tools in the field of veterinary medicine”, funded by the Agence Universitaire de la Francophonie and implemented by the University of Life Sciences “Ion Ionescu de la Brad” in Iași, Romania, highlights the background, objectives, main strategies and key objectives of an interdisciplinary international collaboration that strives to advance foreign language education by developing AI-enabled content and tools for both teachers and students.

KEYWORDS: *language education, FLT, artificial intelligence, veterinary medicine, didactics*

The LANGVET – IA project, titled “Conceiving linguistic and pedagogical content using artificial intelligence (AI) tools in the field of veterinary medicine,”¹ led by Lecturer Dr. Elena Velescu from the University of Life Sciences “Ion Ionescu de la Brad” in Iași, Romania is an initiative funded by the Agence Universitaire de la Francophonie that brings together a diverse team of experts in linguistics, didactics, veterinary medicine, and information engineering from institutions such as “Alexandru Ioan Cuza” University of Iași, “Ion Creangă” Pedagogical University of Chișinău (Moldova), “Akaki Tsereteli” State University (Georgia), University of Rijeka (Croatia), and the “Al. Philippide” Institute of Philology of the Romanian Academy in Iași.

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The project seeks to address critical needs in language education, particularly in the teaching of French as a foreign language, through the integration of new technologies and artificial intelligence (AI). Primarily, there is a growing necessity for pedagogical tools that harness contemporary technological innovations, aligning with the objective of modernizing instructional methodologies to enhance student engagement through AI's practical applications in language learning. Additionally, it is increasingly essential to link the knowledge and competencies students acquire during their academic training to workforce demands as AI becomes more prominent.

Another project aim is to promote the use of AI tools among veterinary medicine and language students and their instructors by integrating these tools into learning and professional practice. To this end, the project will develop online educational resources and linguistic resources tailored to professional communication, available in three languages: French, English, and Romanian.

A significant dimension of this project involves the development of transversal skills, emphasizing the interplay between specialized terminology and intercultural components, such as representations of animals. A further objective includes the creation of multilingual glossaries that delineate veterinary medicine's linguistic scope, complemented by instructional materials that deepen student comprehension.

Despite AI's growing relevance in language education, there remains a notable deficit in terminological studies within the veterinary field, especially those addressing multilingual contexts (e.g., French, English, Romanian). Bridging these gaps is facilitated by the integration of AI into instructional approaches, providing educators with essential tools for fostering autonomous, engaging learning experiences. Nevertheless, resources and strategies for training educators in AI utilization remain limited. Beyond enhancing instructional practices, this project underscores the importance of connecting educational activities with research. All participating educators are committed to advancing both their pedagogical methods and their scientific contributions through publications and scholarly dissemination.

By merging language education, didactics, and intercultural studies, this initiative aims to elevate the visibility of language instruction within regional universities. It is anticipated to contribute to the development of these institutions, enrich their academic offerings, and strengthen the quality of teaching and research personnel.

Key objectives include:

- Developing educational resources for veterinary terminology.
- Increasing participation of non-language specialist students and Modern Languages instructors from Central and Eastern Europe in international training and research within a multilingual and multicultural framework.
- Promoting the generation and dissemination of knowledge on language instruction through scientific collaboration and participation in academic events.

To achieve these goals, the project pursues several strategies:

1. **Tool standardization:** By aligning veterinary tools and competencies with international standards, the project aims to facilitate student and researcher mobility and encourage open exchanges.
2. **Skill enhancement:** Improving student competencies in clinical practice and digital AI contexts to prepare them effectively for the workforce.
3. **Interdisciplinary language education:** Strengthening linguistic diversity and intercultural awareness in veterinary studies.
4. **Multidisciplinary content development:** Producing innovative content to support students and instructors in professional training.
5. **Quality improvement:** Enhancing education quality, innovation, and internationalization through global cooperation.
6. **Integrative language and specialty education:** Promoting student autonomy and active participation by blending language and subject-specific learning.
7. **Terminology research:** Conducting research on specialized veterinary terminology to produce glossaries and terminological databases.
8. **Competency development:** Enhancing educator and learner skills in interdisciplinary education with AI through specialized workshops.
9. **International training participation:** Strengthening student and teacher engagement from Central and Eastern Europe in international programs.
10. **Collaborative research:** Producing a collective study on project outcomes and developing educational resources for language and veterinary educators.

11. AI Integration in language teaching: Exploring AI applications in language instruction, such as: generating pedagogical resources like exercises and games, supporting language accuracy through error correction and assisting in text production to develop writing skills.

The task distribution among project partners was organized based on their professional expertise in order to foster effective collaboration and achieve common goals. Responsibilities were divided into four main domains: (I) veterinary medicine, (II) language, terminology, and translation studies, (III) language didactics and AI integration, and (IV) intercultural studies. Each partner institution designated a team of researchers to contribute to the project, ensuring a multidisciplinary and comprehensive approach.

Key activities for each team include:

- **Organization and participation in team meetings:** regular meetings facilitate coordination, sharing of updates, and progress assessment, fostering communication and synergy among partners.
- **Coordination of short-term mobility programs:** partners host and coordinate expert mobility programs for educators and researchers, promoting cross-disciplinary training and knowledge exchange.
- **Development and publication of educational materials:** collaborative efforts focus on creating, analyzing, revising, and publishing educational resources aligned with the project's interdisciplinary focus, ensuring high-quality output.
- **Project presentation and dissemination:** the project's results are presented at workshops, study days, and international conferences, enhancing visibility within the academic community.

Student involvement: students from partner universities actively participate through virtual working sessions and collaborative meetings, beginning in July 2024, engaging with their peers and instructors from different countries.

Expected outcomes

This collaborative effort aims to produce meaningful outcomes, including:

- **Diversified educational content:** the creation and dissemination of innovative materials that integrate language, veterinary medicine, and cultural studies.

- **Enhanced learning environments:** AI tools are anticipated to improve engagement and motivation, leading to more effective learning experiences.
- **Contemporary teaching methods:** integrating AI and information technologies, the project offers modern, interactive teaching approaches that enhance learning.
- **Efficient language and terminology acquisition:** AI-supported methods are expected to improve language learning efficiency, especially for veterinary terminology.
- **Support for academics at risk:** the project enables academics from crisis-affected countries, especially within the AUF network, to remain connected to the global scientific community.
- **Promotion of French in education and research:** through an international conference and research dissemination, the project raises the profile of French as a language of education and inquiry.
- **Development of specialized language instruction in veterinary medicine:** targeted training and research initiatives aim to strengthen language education specific to veterinary studies.
- **Technology and expertise transfer:** the project promotes the transfer of ICT and AI expertise into language education and veterinary medicine, driving innovation in these fields.
- **Creation and renewal of teaching materials:** new and updated resources will enrich educational materials in both language and veterinary fields.

This initiative aims to establish sustainable, innovative educational practices that enhance learning experiences and strengthen international research and collaboration.

By integrating research and training to equip students and educators with AI tools for language learning and veterinary medicine, this project—supported by an interdisciplinary team—aims to advance the education of future specialists in the life sciences. It also seeks to enhance the international profile of Languages for Specific Purposes instruction at regional universities by embedding advanced research within a modern, sustainable teaching model.

Project valorization strategies:

- **Publication of results:** the project will produce interim and final outputs, including scientific articles, pedagogical guides, and a collective volume, ensuring the broad dissemination of findings.
- **Dissemination at conferences and regional events:** by presenting at conferences and study days, and through article publications across the region, the project will encourage scholarly engagement with its outcomes.
- **Online knowledge sharing:** results and resources will be accessible via online platforms, educational websites, and partner university portals, ensuring widespread access.
- **Educational resource development:** pedagogical materials will be available on partner institutions' online platforms, supporting enhanced teaching and learning practices. Additionally, a comprehensive database of veterinary terminology will be created as a valuable tool for students and educators.
- **AI Integration in language courses:** AI tools will be incorporated into language courses across member universities, promoting innovation in language teaching.

Through these strategies, the project intends to ensure the sustainability of language education within veterinary medicine and related fields. By utilizing online platforms, fostering international collaboration, and integrating AI into language instruction, the initiative aims to serve as a model for innovative educational practices in academic and professional contexts.