EDITORIAL

In this issue, "Learning with NooJ" highlights NooJ applications that pave the way for the integration of symbolic AI with generative AI. It also highlights other approaches to research of natural language processing, focusing on embedding vectorization, dimensionality reduction, and the generation of algorithmic clusters, visualized in graphs. It even explores integrating NooJ with fractal analysis. Two turning points—the European iRead4Skills project and the conference held in Rosario—reflect a common concern on both sides of the Atlantic: the need to open up new spaces for analysis, which oscillate within the transition between what we refer to here as technophilia and technophobia, that is, to what extent the emergence of AI modifies or redefines discursive practices and disciplinary fields, and to what extent NooJ's rules can contribute their rigor to generate, for example, paraphrases of Quechua.

Thus:

- In their article "Fractal Analysis and Computational Linguistics: A Framework for Understanding Language," Ritamaria Bucciarelli, Francesco Terrone, and Javier Julián Enríquez present the convergence between fractal information theory and fractal geometry in the field of computational linguistics. Meanwhile, NooJ is a tool that leverages finite-state technology to analyze large corpora and enables the construction of structured linguistic resources, including lexicons and grammars. Consequently, its ability to handle recursive graph structures—in particular, recursive transition networks—makes it a suitable resource for the analysis of fractal structures.

-In his article "Textual Anamorphosis in the Teaching of Literature: Between Independent Reading and Digital Tools," Xavier Blanco Escoda draws on the concept of "textual anamorphosis," understood as the formal reorganization of the text (indexes, concordances, subcorpus partitions, complexity analysis) without incorporating external information. First, the European iRead4Skills project is presented, which focuses on the automatic analysis of textual complexity and the development of reading proficiency among an adult population. Next, we describe the basic functionalities of the NooJ platform that are particularly relevant to work in the digital humanities. Building on this foundation, the article presents an example of educational integration applied to Victor Hugo's novel *Les Misérables*, demonstrating how exploring the lexical field of "crime" using textual analysis tools can generate interpretive questions, foster guided research, and articulate the back-and-forth between engagement and critical distancing. The article advocates a position that maintains a distance from both technophilia and technophobia.

-In their article "Applications of Data Mining and Natural Language Processing to News Portal Articles: An Exploratory Approach to Hypothesis Generation in Semiotic Interpretation," Francisco Alomar, Natalia Raimondo Anselmino, Dolores Sollberger, and Irene Lis Gindín present part of a study on the platformization of discourses regarding the public commons, limited to a case of "narco-terrorism" in the city of Rosario (Argentina) during 2024, conducted by a multidisciplinary team. The findings stem from the application of data mining and natural language processing (NLP) that include the vectorization of texts using embeddings, their dimensionality reduction, and the generation of algorithmic clusters, projected onto graphs.

-In his article "Transformations and Paraphrases of Sentiment Phrases in Quechua," Maximiliano Duran addresses the automatic generation of paraphrases for sentiment predicates in Quechua. Using the NooJ transformational engine, he first constructs the rules corresponding to the elementary transformations for the Quechua language. Next, generative grammars for pronominalization, reduction, argument permutation, passivization, and other phenomena are described in detail. The paper then demonstrates how these can be combined with one another, while adhering to certain syntactic constraints, to produce complex transformations. Finally, a

specific subclass of transformations is presented that automatically generates paraphrases of a sentiment predicate in Quechua.

- Lastly, Mariana González presents a review of the conference "AI in Debate" held at the Faculty of Humanities and Arts, UNR. The conference took place on June 10, 11, and 12, 2026. The significance of this event is considered foundational, as it fostered discussion on a highly topical issue by bringing "the humanities" into dialogue with the sciences associated with soft technologies: computer science and knowledge engineering—in the controversial field of artificial intelligence (AI).

This issue should be of interest not only to all users of the NooJ software but also to those conducting research in the field of natural language processing, particularly regarding the interplay between statistical approaches and vectorization on the one hand, and grammars and dictionaries—which can be implemented in NooJ—on the other. This interplay is generating a necessary synthesis, or at least some points of convergence.

We believe readers will appreciate the importance of this issue, both for the intrinsic value of each linguistic formalization and its underlying methodology, and for the potential to develop possible applications.

Andrea Fernanda Rodrigo, (National University of Rosario, Argentina)