



## European Culture and Literature



### ***Automatic metaphor identification: state-of-the-art, trends and future applications for narrative studies***

(Identificación automática de metáforas: estado de la cuestión, tendencias y aplicaciones para los estudios de narrativas)

by PhD Candidate M.Eng. María Isabel Marín Morales and Prof. dr. Pablo Valdivia  
(this talk will be in Spanish with simultaneous automatic translation to any language, followed by a Q&A in English/Spanish)

Date: 17th March 2023

Venue: University of Groningen 1315.0036 / Hybrid: [Link Here](#) / UFRO Núcleo TV  
Time: 15:00 to 17:00 Groningen Time (GMT+1) / 11:00-13:00 Santiago Time (GMT-4) /  
09:00-11:00 Bogotá Time (GMT-5)

#### **Summary:**

Lakoff and Johnson, and scholars that followed their line of inquiry, have explained why and how metaphor is not just a rhetoric embellishment but a ubiquitous cognitive device present in everyday language, affecting how we think and act. Thus, metaphor is one of the most complex abstract cognitive devices with which the human mind is equipped and which weaves not only discourses and narratives but also power relations, world-views, behaviors, and affects. In recent years, artificial intelligence has largely surpassed its limits and has enriched and optimized various promising models for language processing, including language models such as ChatGPT. These new computational possibilities expand our knowledge of the internal workings of human cognition and the understanding of some of its most challenging and powerful mechanisms. Under this over-arching scenario, our current research inquiries whether an AI-enabled system could help us understand how cultural narratives are shaped and how they drive social mobilization by modeling and processing the metaphors used in public discourse. In our talk, we will offer a systemic review of the state of the art regarding current models available, their pros and cons concerning automatic metaphor detection and prediction, and we will provide a comprehensive overview of the potential applications for studying metaphoricity and complex information and representation narrative systems.

(Lakoff y Johnson, y los académicos que siguieron su línea de investigación, han explicado por qué y cómo la metáfora no es solo un adorno retórico, sino un dispositivo cognitivo ubicuo presente en el lenguaje cotidiano, que afecta la forma en que pensamos y actuamos. Por tanto, la metáfora es uno de los dispositivos cognitivos abstractos más complejos con los que está equipada la mente humana y que teje no sólo discursos y narrativas, sino también relaciones de poder, visiones del mundo, comportamientos y emociones. En los últimos años, la



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inteligencia artificial ha superado ampliamente sus límites y ha enriquecido y optimizado varios modelos prometedores para el procesamiento del lenguaje, incluidos modelos de lenguaje como ChatGPT. Estas nuevas posibilidades computacionales amplían nuestro conocimiento del funcionamiento interno de la cognición humana y la comprensión de algunos de sus mecanismos más desafiantes y poderosos. Bajo este escenario general, nuestra investigación actual explora si un sistema de IA podría ayudarnos a comprender cómo se forman las narrativas culturales y cómo impulsan la movilización social al modelar y procesar las metáforas utilizadas en el discurso público. En nuestra charla, ofreceremos una revisión sistémica del estado de la cuestión con respecto a los modelos actuales disponibles, sus pros y contras con respecto a la detección y predicción automática de metáforas, y proporcionaremos una visión general completa de las posibles aplicaciones para el estudio de la metaforicidad y los sistemas narrativos complejos de información y representación)

### **Bio:**

María Isabel Marín Morales is PhD Candidate in the Chair group European Culture and Literature (University of Groningen). PhD Researcher in the Research Theme Group Data Science, Culture & Social Change at Research Centre for the Study of Democratic Cultures and Politics (DemCP, RUG). Before starting doctoral studies at University of Groningen in 2022, she worked in Colombia at La Comisión para el Esclarecimiento de la Verdad, la Convivencia y la No repetición (CEV), Universidad de Antioquia, Tecnológico de Antioquia and the Universidad Eafit. She is a Systems and Computer Engineer from the Universidad Nacional de Colombia and M.Eng. from the same university. For more information, [click here](#).

Pablo Valdivia is Chair-Full Professor of European Culture and Literature (University of Groningen), Accredited Full Professor [Catedrático Universidad] of Arts and Humanities (ANECA, Spain), Associate in Applied Physics at Harvard Paulson School of Engineering and Applied Sciences (Harvard University), Academic Director of the Netherlands Research School for Literary Studies (OSL), Scientific Advisor of the Netherlands Institute of Advanced Studies in Social Sciences and Humanities and the Netherlands Royal Academy of Arts and Sciences (NIAS-KNAW), "Pablo Valdivia" Chair in Communication, Humanities and Technology (UACH-UFRO), Coordinator Research Theme Group Data Science, Culture & Social Change at Research Centre for the Study of Democratic Cultures and Politics (DemCP, RUG), Co-Editor of the Routledge Companions to Hispanic and Latin American Studies and Research Fellow "Corpus Ex Machina" Research Group Incubator (UdeA). His research deals primarily with the "Humanities", "Social Sciences", "Communication", "Computational Literary Studies", "Cultural Analytics" and "Technology", and the notions of "Culture, Literature and Crisis" from a multidisciplinary transnational perspective. He is an expert on "Cultural Narratives" and "Conceptual Metaphors". He carries out multidisciplinary research with particular emphasis on Digital Humanities, Artificial Intelligence, University Innovation, Data Science, Applied Physics, Social Sciences and Cognitive Sciences. For more information, [click here](#).