First Diffusion Course: "The Structure of Language as a Connection Between Artificial Intelligence, Information and Ethics"

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First Diffusion Course:
The Structure of Language as a Connection Between Artificial Intelligence, Information and Ethics

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From August 22nd to November 21st, the first Diffusion Course on “The structure of language as a connection between artificial intelligence, information and ethics” will take place on a Thursday of each month, in Ribeirao Preto, Brazil. You are cordially invited to sign up for in-person classes and join other researchers and students on this course. The first announcement is included below.

Registration from July 29th to August 20th, 2024, via the link https://uspdigital.usp.br/apolo/inscricaoPublicaFormCursosOferecidosListar?oriins=W&codmnu=1447 or by email at di_motta61@yahoo.com.br.

First announcement of the Diffusion Course
“The structure of language as a connection between artificial intelligence, information and ethics”
Ribeirao Preto, Brazil
August 22 to November 21, 2024.

We are announcing the opening of the registration deadline for this first diffusion course, as a continuation of the fruitful research work as a Collaborating Researcher over five years at the Department of Computing and Mathematics at the University of Sao Paulo. Registrations must be made between June 29th and August 20th, 2024. The decision on acceptance of registrations and the certificate of attendance will be provided through USP’s Apolo Platform. Registration for the 4 face-to-face classes is possible through the Apolo website of the University of Sao Paulo: https://uspdigital.usp.br/apolo/inscricaoPublicaFormCursosOferecidosListar?oriins=W&codmnu=1447 Should you have any questions, messages can be sent to the following email address: di_motta61@yahoo.com.br.

Journal of Humanistic Mathematics Volume 14 Number 2 (July 2024)
The diffusion course

An innovative approach to the question of what is the natural language that connects human cognition to intelligent systems became visible internationally in the form of a book published by Elsevier in 2021. Since then this has become a well-established topic capable of answering to many doubts about the AI black box. From the first investigations since 2018, through specialized conferences and the publication of several articles and chapters in Scientific Journals, this will be a face-to-face course that brings together the content of this research and publications to present it to undergraduate and postgraduate students in the areas of Computing, Law, Engineering, Education and similar areas.

During the four classes that will be offered, topics discussed will include:

- Characteristics of the cognitive linguistic structure - August 22, 2024, from 10:00 to 12:00,
- What is artificial intelligence - September 19, 2024, from 10:00 to 12:00,
- What is information: truth and value versus the discursive layer of language - October 24, 2024, from 10:00 to 12:00,
- Law and artificial intelligence under sustainable ethics - November 21, 2024, from 10:00 to 12:00.

Those enrolled will have the opportunity to learn about structural aspects that successfully connect interdisciplinary studies on language, cognition, decision-making, artificial intelligence and ethics. Ethical aspects will be discussed from the perspective that artificial intelligence, AI, interferes with the cognitive linguistic process. Language processing tools not only calculate but also operate on the mutual relationships between language elements and cognition. These relationships belong to the discursive chain, which has not yet been properly addressed in natural language processing. Following Boolean theory, on the one hand, there is mathematical formalism (Ps and Qs), and on the other, operations, propositions, relationships that must be managed to preserve the predictive capacity of neural networks.

The diffusion course is jointly organized by the University of Sao Paulo, Dean of Culture and University Extension Faculty of Philosophy, Sciences and Letters of Ribeirão Preto, Department of Computing and Mathematics, Brazil. This course aims to open new horizons of research for undergraduate, postgraduate students or interested parties so that they can manage relationships that go beyond mathematical formalism.

A poster of the course announcement can be seen on the next page.
Course on “The structure of language as a connection between artificial intelligence, information and ethics”.

Offer period: August 22nd to November 21st, 2024
Registration by email: dianteabdiem@yahoo.com.br
Form: The course is free of charge and requires a class attendance.
Location: Department of Computing and Mathematics, DCM-FFCLRP-UNAERP (classroom number 500 is subject to confirmation)
Target audience: undergraduate and postgraduate students in the areas of Computing, Law, and similar areas.

Lectures by: Prof. Dr. Dionela Motta Monte-Serrat, DCM-FFCLRP-UNAERP - Link CV: http://lattes.cnpq.br/1892322246056739
Institutional responsible: Prof. Dr. Evandro Eduardo Seron Ruiz, DCM-FFCLRP-UNAERP

Justification: present an innovative perspective on the structure of language that establishes a connection between human cognition and intelligent systems.

Goal: The structure of language as a connection between artificial intelligence, information and ethics aims to integrate theoretical contents about language, mathematics, law, and artificial intelligence. Ethical aspects will be assessed from the perspective that artificial intelligence, AI, interferes with the cognitive linguistic process. Language processing tools not only calculate but also operate on the mutual relationships between language elements and cognition. These relationships belong to the discursive chain, which has not yet been properly addressed in natural language processing. Following Bowerman theory, on the one hand there is mathematical formalism (Ps and Qs) and, on the other, operations, propositions, relationships that must be managed to preserve the predictive capacity of neural networks. This course aims to teach undergraduate students in Computing and Mathematics or Law how to manage these relationships that go beyond mathematical formalism.

Program:
Lecture 1 - Characteristics of the cognitive linguistic structure
(August 23, 2024, from 10:00 to 12:00)
Lecture 2 - What is artificial intelligence
(September 19, 2024, from 10:00 to 12:00)
Lecture 3 - What is information: truth and value versus the discursive layer of language
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