

## **Sustainability | Individual communication**

### **IC - (21109) - MONITORING PSYCHOLOGICAL DISTANCE AND DENIAL IN SOCIAL MEDIA: A MACHINE LEARNING APPROACH TO STUDY RISK PERCEPTION RELATED TO ENVIRONMENTAL AND HEALTH CRISIS**

Valentina Rizzoli<sup>1</sup>; Laura Soledad Norton<sup>1</sup>; Jessica Neri<sup>2</sup>; Mauro Sarrica<sup>1</sup>

1 - Department of Communication and Social Research, Sapienza University of Rome; 2 - Department of Philosophy, Sociology, Education and Applied Psychology, University of Padua

#### **Background and objectives**

Several studies shed light on the role of denial and psychological distance as barriers to implementing effective coping behaviors to face risks, such as environmental (cf. climate change) and health (cf. Covid-19 pandemic) crisis-related risks. Furthermore, literature showed that climate change and Covid-19 pandemic can be considered two sides of the same urgent crisis, involving various (and overlapping) types of risks, even if perceived differently, thus emphasizing the necessity of a systemic approach to risk management (cf. multi-hazard perspectives).

While the role of these processes as psychological barriers is already well known, little is known about how they are expressed in the natural language in social networks. Social media, by enabling communication at different levels (i.e., societal and contextual), serve as a space for the construction of risk perception. The aim of this contribution is to present a tool that enables the identification of psychological distance and denial in the interactions that occur online. This will allow, on one hand, to capture how risk is constructed, and on the other hand, to implement effective communication strategies promoting, ultimately, social change.

#### **Process and methods (for empirical research)**

Two corpora of Italian tweets related to the Covid-19 pandemic and climate change will be examined by a team of researchers to: I) identify the linguistic features expressing the processes of denial and psychological distance; II) create an analyzed corpus and test its effectiveness to detect the same processes through the application of machine learning algorithms for classification (Support-Vector Machines and Random Forest).

#### **Implications for research and practice/policy | Importance and originality of the contribution**

The results will be discussed focusing on the use of the proposed tool as a monitoring strategy and as a starting point for the implementation of effective communication which take in consideration the community within which the same processes of risk construction are generated.

**Palavras-chave : risk perception, psychological distance, denial, environmental crisis, health crisis, machine learning**