



M-PHASIS :

A FRANCO-GERMAN RESEARCH PROJECT TO COMBAT HATE SPEECH ON THE INTERNET

LORRAINE UNIVERSITY OF EXCELLENCE

68 laboratories

4 486 researchers and professors

1947 PhD students

108 scientific platforms and equipment

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As part of the OLKI program, led by the Lorraine University of Excellence, two researchers have combined their subjects, information and communication sciences and computer science, to better monitor and track hate speech on social networks. This Franco-German project, called M-PHASIS, has made progress towards this goal possible.

Thousands of highlighted online comments

To begin, the team considered how best to collect the data. For example, epistemological work has been carried out in an effort to define hate speech, both syntactically and lexically.

“The priority then became to collect data on the various networks, or in other words to collect hateful messages. For this project, we focused on written messages. More than 10,000 comments were recorded on social media sites, such as Twitter, and on newspaper sites. This data was collected in France and in Germany, with a cross-cultural approach” explains Irina Illina, lecturer at IUT Nancy Charlemagne and research in the Multispeech team at Loria (CNRS, Inria, University of Lorraine). This shed light on the differences between the two countries. *“The French are more fond of Twitter than the Germans, for example, which means that, in Germany, this social network site peddles far fewer hateful messages”* adds the researcher.

This exercise is a challenge in and of itself, due to the fact that it is important to take privacy regulations into consideration, compounded by the fact that, in Europe, platforms have a legal obligation to such messages within 24 hours of their posting.

M-PHISIS (Migration and Patterns of Hate Speech in Social Media)

The uniqueness of this program is that it draws on both information and communication sciences and computer sciences in France and Germany, bringing together the University of Lorraine with the Universities of Mainz and Saarland.

Hate speech is spreading

According to a UNESCO report, 80% of people have experienced hate speech (HD) online, and 40% have felt attacked or threatened via social medias sites across the European Union.

It was then necessary to annotate this corpus. “*We defined an annotation protocol comprising of around a hundred questions, which allowed us to obtain results with greater finesse, allowing for a more efficient model of identifying implicit hate speech,*” sums up Irina Illina. By definition, implicit hate speech is more difficult to capture than that which is explicit, and therefore identifiable through keywords.

This corpus and the computer tool developed, called HUMAN (Hierarchical Universal Modular Annotator), have now been shared with the scientific community and are contributing to advancing the fight against hate speech on the internet, for the benefit of all of society. The GAFAM (Google, Apple, Facebook, Amazon and Microsoft), who carry out similar research in this area, have access to all this work.

Towards new research

After four years of research, the M-PHISIS program ended last August. The collaboration between Irina Illina and Angeliki Monnier, director of CREM (Center for Research on Meditation) and professor of information and communication sciences at the University of Lorraine, nevertheless continues. Because hate does not lack creativity in spreading its messages, the two researchers and their teams now wish to broaden their research via a multimodal approach, combining text and audio signal – using, for example, the soundtrack of a video and the text comments on YouTube. A project has already been submitted in this direction, remaining within the framework of the OLKi program.

Funded by the Agence National de la Recherche (ANR) and its German counterpart, the Deutsche Forschungsgemeinschaft (DFG), the M-PHISIS project is part of the OLKi program (Open Language and Knowledge for citizens), carried out by the Lorraine University of Excellence, and dedicated to language and knowledge engineering.

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