

EASSW 2019

Autores: Joaquín Castillo de Mesa y Antonio López Peláez

Título trabajo: Artificial intelligence applied to cases of early risk detection

Social work professionals feed information systems with enormous amounts of information about the people they serve. These massive amounts of data provide potential for research that can be used to detect certain behaviors. It is about making profitable the great effort of systematization of information by social workers and taking the next step to, based on the premises of transparency and participation and being very jealous with the confidentiality of this data and above all not neglecting the ethical risks, to be able to convert that information, from synthesis, into knowledge to be able to intervene with more chances of success.

The objective of this communication will be to analyze the design and implementation of an algorithm that automates the early detection of cases of abuse of victims of gender violence, abuse of minors, abuse of elders or radicalization of immigrants. From the user's own story and the subsequent transcription that the social worker makes of the same in the social history, this system analyzes and calculates the most common combinations of words when a user is verbalizing a risk situation to social workers. From there, it establishes an alert system to prevent, geolocate and describe the risk, thus allowing greater anticipation and the design of more effective interventions. The model uses natural language processing and analysis and artificial intelligence to discover the telltale words and the probability of risk. To design the algorithm itself, it has been essential to analyze the social context well. All the actors involved (experts, social workers, victims of risk cases, etc.) have been involved to understand the user experience.

In conclusion, it is a scalable system that can be extrapolated to the social services of other countries that responds to the growing demand for analyzing Big Data in the field of social services and that places the Spanish social services system at the forefront of technology. .

Keywords: Artificial intelligence, Big Data, Early detection, Violence, Abuse, Radicalization of immigrants