



Echo chambers and polarisation

Communicating information on Covid-19 is a major challenge. Dr. Fabiana Zollo from Ca' Foscari University of Venice on the "infodemic": the new term coined by WHO refers to the circulation of an excessive amount of information, often unverified.

Scientific communication in Europe

The EU H2020 research project QUEST, headed by Dr. Fabiana Zollo, focuses on scientific communication in Europe. Initial research results show a fractured opinion and information landscape, and the necessity for a dialogue-based approach. To improve communication on disputed scientific issues, the QUEST project has established 12 core indicators. These can be summarised under three pillars: trustworthiness and scientific rigour, presentation and style, and connection to society.

More information:

<https://questproject.eu>

The Covid-19 outbreak shows, maybe as never before, the importance of scientific communication and its crucial role in the information system. The spreading of lots of information on the coronavirus, often unverified or unreliable, can destabilise the public and make it difficult to form a clear opinion. This uncertainty might have an impact on the epidemic process and divide society. Therefore, it is important to understand how people get informed and form their opinions, and how this can influence their choices.

The “infodemic” on social media

Our research group at Ca' Foscari University has analysed the evolution of the public debate on Covid-19 since the first weeks of this emergency. We measured the now famous R_0 factor for the infodemic on different social media platforms. In an epidemic, R_0 is the number of individuals that can be infected after being in contact with a contagious individual. When R_0 is greater than 1, there is the possibility of a pandemic. In our study, this means the possibility of an infodemic. This value was supercritical for all investigated social media platforms, thus showing the high engagement of users in the public debate on the coronavirus.

Echo chambers and cognitive bias

Despite the abundance of information, its quality is often poor. There can be many reasons for this: from paid quality content to a decline in investment in news production and distribution. Subsequently, traditional media lose respect and trust, and this may encourage many people to rely on alternative sources of information, which are not always qualified. Furthermore, it has been demonstrated that people tend to process scientific findings along their own system of belief. They tend to be biased when selecting and interpreting information. This means: information outside their circle of family and friends is ignored (“echo chambers”) and correction attempts from outside are rendered ineffective and counterproductive (“backfire effect”).

Tailored communication strategies

Our research group uses techniques from computational social science to analyse information spreading as well as individuals' and group dynamics. The aim is to identify communication strategies that smooth extreme polarisation and facilitate a civil debate.

Together with the London School of Economics and journalists from Corriere della Sera, Italy's largest daily newspaper, we have, for example, examined which journalistic techniques were more effective to engage users on the social media platform Facebook in a constructive and civil debate. We showed that impartial and accurate reporting leads to less criticism of the source of information. Conversely, stories of general human interest provoke strong negative reactions. Infographics, fact checks and a data-based approach also lead to strong public resistance to certain topics. Depicting strong opinions and political guidelines to polarise the issues inevitably leads to rejection and an often toxic debate.

Taking these findings into account, the major communication challenge triggered by the Covid-19 pandemic, after all, can be a great opportunity to improve the effectiveness and the quality of information and scientific content for the public. A deep understanding of social dynamics in the public debate is thus necessary to develop appropriate information strategies. ■



Dr. Fabiana Zollo is an assistant Professor at Ca' Foscari University of Venice in the Department of Environmental Sciences, Informatics, and Statistics, member of the “Data Science” task force established by the Italian Authority for Communication. Her research focuses on information and misinformation spreading, social dynamics and the evolution of collective narratives on social media.