

What do we do about fake news?

Vera Koester

Fake news, including fake science, is everywhere. That is probably how it is always been. A 19th-century example is the “Great Moon Hoax”: In a six-part series, which appeared in the *New York Sun* from August 25, 1835, the alleged discovery of life on the moon was reported.^[1] So why should we care?

Before the internet age, fake stories used to have a limited reach beyond newspapers and local rumors. Today, in contrast, everybody can spread everything worldwide in no time. This makes fake news and fake science potentially more harmful.^[2]

We are currently experiencing a media revolution. Facts—or statements that claim to be facts—are being disseminated in large numbers by different media and with a wide variety of motives. We are virtually being suffocated by too much information. These “facts” are often contradictory, and the truth is not always easy to find out. This leads to uncertainty among people and to a crisis of confidence, which can make people susceptible to seemingly simple populist answers.

The classic media are subject to strict controls under media law. Social media are not. On Twitter, Facebook, etc. you can claim things that are not verified, even though hundreds of thousands or even millions might receive your messages. When I publish something in traditional media and reach many people, I have to follow rules such as the journalistic ethics and standards. In this respect, social media are mass media in a lawless space. Something urgently needs to be done about this. It would be important to create a common European legal framework for social media so that legal action can be taken against false reports.

Content on social media is free, journalistic articles are often behind a paywall. The information gap is growing between those who cannot or do not want to afford journalistic content behind a paywall and those who do. Access to quality information might increasingly become a privilege.

This is a particularly important issue for science information, which is complex and difficult—if not impossible—for the layman to understand. Researchers want to do research first and foremost. When they appear in public, they are not so much concerned with ensuring that the content of their research is understood by everyone, but rather with its acceptance and visibility.

This, too, can be dangerous. The public needs a basic scientific understanding. The COVID-19 pandemic is only one example showing us how important science is for society and how important an informed public is. Reliable information is necessary to be able to critically interpret the complex problems affecting our world. So what can we do?

I liked what Miguel Ángel Sierra wrote in his April Editorial about what we as chemists can do in connection with COVID-19 and fake news: “Nothing does more harm in a crisis situation than the “funny” ones who dedicate themselves to spouting nonsense on social networks. I think that all of us, from high school teachers to university professors, scientists from the CSIC, and other research centers, can block these hoaxes, “fake news”, magic remedies, and many others that infect the networks. Let’s do it and let this contribution be our grain of sand to overcome this crisis.”

The WHO has published a portal where it <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters>.^[3] In Spain, the website <https://maldita.es> publishes a large number of detected “fake news”. Artificial intelligence, whose algorithms recognize certain patterns of fake messages, can help. But the final decision has to be made by each and every one of us. We can all stop the sending of new fake messages via WhatsApp and social networks. We can speak up when we see false information. We can constantly reconsider how to explain science in an attractive and engaging way, especially to the younger generation.

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V. Koester

Editor-in Chief *Chemistry Views Magazine*
<https://www.chemistryviews.org>
 C-e: vkoester@wiley.com

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