



WFSJ

World Federation of Science Journalists
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Theme 3 Report: ETHICS IN SCIENCE JOURNALISM

European Science Open Forum 2020 (Trieste)



“Every time you tell the truth and challenge claims, you are doing ethical journalism”.

“Where is the ethics when scientific information is misused?”, 4 September 2020

Long before we were faced with COVID-19 pandemic, pseudoscience, anti science conspiracy theories, and denial of science already marked our daily life, with doctors promoting pseudoscience on daily shows, companies using words related to science to selling products that are not evidence-based, conspiracy theories spread on social media, journalists hyping science news, and politicians cherry-picking science information according to their needs.

SARS-CoV-2 and the pandemic just created the perfect ground for misinformation and fake news to bloom. In the run for treatments and vaccines against this new disease even scientists are crossing the line:

misinterpreting data, publishing biased results, or using poor methodologies. The fast pace reporting, insufficient and contradicting information, mixed with misinformation from scientists and politicians just made journalists and communicators work more complex.

The current pandemic and WFSJ [participation](#) at the European Science Open Forum (ESOF2020) created the perfect scenario to discuss the misuse of scientific information, the ethics in reporting about science, and the hurdles and pressures science journalists face. To address these questions WFSJ invited four speakers: Cristina Tardáguila, journalist and the International Fact-Checking Network's (IFCN) Associate Director; Evin Barış Altıntaş, journalist and founder of the Media and Law Studies Association; Fernando Cervera, biologist and board member of the Association para Proteger a los Enfermos de las Terapias Pseudocientíficas; and Ivan Oransky, founder of Retraction Watch and president of the Association of Health Care Journalists (AHCJ).



One of the take home messages is that science journalists should be very careful when they are reporting about science. First, they have to question everything they are told because if science journalists want to tell the truth, they have to dig for it and be as evidence-based as possible. Second, science journalists should try to understand the political and economical issues underlying the science they are reporting.

Being humble, serious, and rigorous are key qualities for science journalists. And that means, for example, telling the audience that the journalists don't know everything and that what they are presenting is what it's known so far. If science journalists are serious and report the truth to their best knowledge, their main purpose won't be clickbait. But one has to remember that media outlets have to find ways to finance themselves and survive.

As for scientists and experts, they have to remember to be really well prepared if they are invited to a debate with pseudoscientists, people that deny the scientific information or people that misuse it because they usually have great argumentation skills. The best way to counter denialists or fake news, however, was not found yet.

The full discussion can be found [here](#).

“We are facing a tsunami of lies”

To start a discussion on “misuse of scientific information” and “ethical science reporting” the speakers were asked by the audience to explain what this means. Inevitably fake news was one of the focus of the discussion. After around 90 minutes, some tips were collected either for science journalists and for scientists so they can deal with misinformation, fake news, and pseudoscience.

What misuse of scientific information means?

There are many different ways of giving a bad use to science and the way one uses science facts to argue about a topic. Fernando Cervera gives one of the most common examples: “When someone gives a fake information or changes some scientific facts in order to get profit — political, economical, social —, to take an advantage they wouldn't get with the truth.”



The best way to explain it is to look at what some country leaders are doing, like Trump, Bolsonaro, Erdogan or Duterte. “They can easily manipulate social media and their supporters,” says Cristina Tardáguila. “That’s quite dangerous when it is related to politics but it is a killing situation when it is related to health.” So far, but not exclusively related to politicians, IFCN and a coalition of fact checkers had debunked in 8 months almost 9.000 falsehoods related to COVID-19, SARS-CoV-2, and the pandemic. “We are facing a tsunami of lies.”



Politicians, though, are not the only ones to misuse science. Ivan Oransky remembered the press briefing in the USA when the President and FDA commissioner announced that an Emergency Use Authorization convalescent plasma. The problem was that, to present the data, the FDA commissioner “cherry picked a very select patient group” and then “used relative risk”. He [picked](#) a number, “from a real paper, a real study, from real data” but misused it: the FDA commissioner said that 35% would be saved, but the real number was way lower.

What’s ethical science reporting?

“Ethical science journalism or ethical medical journalism is to comfort the afflicted and afflict the comfortable.” Ivan Oransky, [quoted](#) Mr. Dooley character, to explain that science journalists should always



ask questions, debunk, challenge false claims, and look for evidence-based information. This kind of story works quite well, says the president of AHCJ about the stories where one tries to get as close as possible to telling the truth about some claims. “Every time you tell the truth and challenge facts, challenge claims, challenge conclusions, you are doing ethical journalism.”

“It might be strange but the definition of ethical journalism is just to be serious about it and put the effort into it,” says Barış Altıntaş, putting the hard task in a very simple way. But as discussed by the speakers, journalists are failing to do it. Clickbait is one of the problems pointed out by Cristina Tardáguila, who advises science journalists to slow down: “Instead of pushing for a headline that might get the click you should write an explanatory.”



The search for equivalence or balance between science and science denialists, pseudoscience or misinformation is another problem pointed out — and TV shows are keen on doing that, says Fernando Cervera. “If I have to advise some colleagues about going to a TV program against an anti-vaxxer or a pseudoscientist, I tell them to make a really big effort in order that the media change the approach to the topic,” says the biologist and science communicator. “But if scientists are not going to this kind of program then we have another problem: people in their houses are just listening to the anti-vaxxers or the flat earthers or whatever.”

Is there a way to eliminate fake news?

Bariş Altıntaş confesses her lack of hope that science journalists can do much to prevent false news or pseudoscience from getting into the news media. The main reason is the financial model of many outlets dependent on clickbait or audiences and resorting to controversial interviews for sounding headlines.

Cristina Tardáguila adds that: “It's interesting how people feel fact checking would end misinformation. It will not. Just like investigative journalists will not kill corruption.” She also remembers that fact checkers work is not to change people’s mind on a topic but to present correct data and let people do the rest.

From Turkey, Bariş Altıntaş brings some numbers: in a survey with over one thousand people around 30% believed either in a conspiratorial theory or a fake treatment and 47% said the virus was developed in a lab (which researchers have shown not to be true). But one thing that strikes the journalist is the fact that these answers came from well educated people.

Some people continue sharing this kind of fake news or misinformation because they have some kind of interest (economical or other), even knowing that it is false, says Fernando Cervera. But there are people that believe that by sharing these information they are doing the best for the people they love. “The problem is that they are killing the people that they love.”

Tips for science journalists (and journalists in general):

- ❑ Science journalists should check the universities, institutions, and experts credentials — not only to see if they are well known and prestigious, but also (and especially) to check if they are really experts on the topic they are writing or commenting about;
- ❑ Science journalists should treat every new research with careful attention, especially when it is not peer reviewed, published in predatory journals or published in unknown journals;
- ❑ Science journalists should look for independent opinion on new research published;

- ❑ Science journalists should be judicious about the choices they make when reporting about a new paper or research;

“We really run a terrible risk if we pretend — and it really is ‘pretend’ — that the peer-reviewed scientific literature is somehow also always worth covering”, says Ivan Oransky. “I would argue that if we learn anything from this pandemic it is that any single paper it is not worth changing our behavior.”

- ❑ Science journalists should avoid reporting about misinformation, fake news, and pseudoscience in a way that will fuel it and make it spread more than if it stayed unreported;

“We need to learn from fact checkers how to deal with a massive hoax: you do not give it oxygen, you do not retweet false content without saying it's false, you do not headline. Spend your time writing about what is right and not just replying to something that is wrong”, advises Cristina Tardáguila.

- ❑ Science journalists should remember that scientific knowledge is continuously changing and should avoid present science as final — use “as of today”, “as far one can tell”, in your text, audio and video;
- ❑ In science, things don't need to be black or white, true or false, it can be unproven, as fact checkers realized during the pandemic;
- ❑ Science journalists should remember that science is not as fast as journalism.

Tips for scientists but also other experts (doctors, engineers, ...)

- ❑ Scientists should fight against the publish-or-perish dictatorship;
- ❑ Scientists can not pretend that papers published or scientific results announced, even in a press release or a press conference, will not be used by journalists, politicians, or citizens;

“Help each other to figure out how to reflect what is actually happening, opposed to a single study or a single data point which can easily be misused”, asks Ivan Oransky to scientists.

- ❑ Scientists should strive for having their results straight and peer reviewed — and, especially, avoid signing some research they haven’t taken part in or haven’t reviewed;
- ❑ Scientists must remember that research is often financed by public fundings and that they have the responsibility of communicate it to lay people and be clear about it;
- ❑ Scientists should be the first to peer review or to fact check other scientists and their announcements;

“I keep asking myself why doctors who have a good point about Covid didn't organize themselves to answer those that went out there”, says Cristina Tardáguila in relation to the [“America’s Frontline Doctors”](#).

- ❑ Scientists don’t have to know everything about every field of expertise, but should use their knowledge about the scientific methods to avoid falling in pseudoscientific theories and fake news;
- ❑ Scientists shouldn’t speak as experts on a topic they are not specialized on;

“The most important thing I would say, if you are going to a TV program, is to be sure that you can really speak about that topic, that you really have some knowledge. The second part is to make sure that you are not going to participate in a ‘circus’ [with pseudoscientists] because people in their houses believe that it is a real scientific debate”, advises Fernando Cervera.

- ❑ In science, things don’t need to be black or white, true or false, it can be unproven, as fact checkers realized during the pandemic;
- ❑ Scientists should remember that journalism is faster than science.



The event in numbers

An innovative ESOF2020 hybrid format gathered top-quality scientific discussion that achieved resounding success among on-site and online participants.

Some 2500 people registered for the event; among these, more than 1000 participated in person and *1400 people connected remotely every day*. On average each event was attended online by around 300 people, and the event saw 4300 overall virtual visits. ESOF2020 was in the global spotlight: online visitors came from 52 countries across 5 continents.

As regards online communication, and in particular social networks, the *ESOF2020 Facebook* page has reached more than half a million people, with *26,000 interactions*. There were *200,000 interactions* on Twitter and *237,000 visits on the ESOF2020 website*.

ESOF2020 also had considerable media coverage, with more than 700 mentions in print and on the web during the days of the conference. To these were added 60 television segments, of which 30 were at national level, as well as 30 mentions on national and regional radio.

The event was reported by all the major Italian newspapers: *La Repubblica*; *Corriere della Sera*; *La Stampa*; and *Il Sole24Ore*. There was also daily live coverage by Tgcom24, a wide coverage of RAI both locally and nationally (RaiNews24, TG1, TG2, TG3, TG Leonardo, Radio3Scienza, and RAIFVG). Several international newspapers also wrote about ESOF, including BBC, SciDev, VaticanNews, and Sciences et Avenir.