

Academia in a post-truth era – a reflection

What is the place for academics in a post-truth era? Although in principle this is a general question of interest to all scientists, it is most intensively discussed by academics with a humanities background. The reasons are obvious. Nevertheless, the fake-news content of popular scientific reports on ‘exact’ scientific topics is also extremely high in the current era. A section on outreach is by now compulsory in all grant applications and scientists are constantly urged to communicate to the public about their research. However, there are some boundary conditions: the communication should not be too difficult to understand, should not reflect any doubt and has to be groundbreaking. Preferably, it should be condensed into 5 lines with a catchy title. This is of course in strong contrast with the high amount of pre-knowledge required to understand most of modern scientific research, the fact that research progresses in small incremental steps and the uncertainty and error margin that is inherent to most analyses. Still, this problem can be easily solved: with some creativity, each research result can be presented as revolutionary in simple words. Never mind the truth and the details, as long as it sells. The consequences are inevitable: the popular-scientific reporting on topics from exact sciences are full of factual errors and/or exaggerated accounts of results. The work of a material scientist who developed a specific method for structure determination of nanomaterials transforms into a big step forward in cancer research, because the analysis method happened to be demonstrated on a type of nanoparticle that might have future applications in cancer therapy. This link is of an equivalent level as representing historical research on World War II as a step forward in understanding Greek mythology, because the term ‘Greek tragedy’ is used in the text. Yet, this type of story passes without further ado. Fellow scientists who notice this type of errors, will not go into public discussion with their colleague on this issue. They know that these popular-scientific texts do not represent the ideas of their colleague, but simply show what is left after a PR department or a journalist has made the text a bit more ‘accessible’ to the public. There is no need for a debate between peers, since there is no topic to debate on. Both parties will agree on the fact that it is not correct what is written in the popular media. They will probably make a joke over coffee about it. Serious debates between exact scientists will only be held on the scientific forums, based on the genuine scientific papers and data and using a terminology that is very domain specific.

I mentioned the above already to many non-scientists, and their answers worry me. Although my coarse sampling of the interlocutors is by no means statistically relevant, I learned that the vast majority of my respondents did not mind that the popular-scientific reporting is not correct. ‘We don’t understand it

either way' was probably the most recurring sentence. Yet, they all felt that it is the scientist's duty to publically report about his/her research. The fact that something is communicated is more important than what is communicated. Form prevails over content, at least when it concerns public reporting on exact sciences. Interestingly, all these persons found fake news a very concerning phenomenon.

On reflection, this is actually the same attitude that the funding agencies and university authorities adopt. Outreach activities and dissemination of results to the general public have become an essential part in a grant application and in the evaluation process for hiring and promotion of academics in a university. But how is this then evaluated? Does any of the evaluators check the content of all the messages on the Facebook page, website and twitter account linked to the project? Of course not, the scientific papers that result from the project are not even read by the evaluators. They just have to exist, allowing a box to be ticked. Even more worryingly, the use of exaggerations, catchy titles, and other selling tricks have by now also infiltrated the scientific peer-reviewed papers and are by definition part of all project applications.

The discussion on the place for academics in this post-truth era is undoubtedly in many ways domain specific, but it is a discussion of importance to all academics. It is also a discussion that should not just focus on the interaction of academia with society, but also on the question of how much the post-truth era has penetrated the mythical 'ivory tower'.

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