

Comment

THE SOCIALISATION OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH

Public scientific communication: reflections on the public and its participation forms

Peter Sekloča, Ernest Ženko

ABSTRACT: Scientific communication also pertains to the domain of society, where the formation of public opinion about science and technology is taking place. Concerning this process, two main points are exposed in the commentary. The first is a proposition on how the public as a social category may be conceptualized, and the second is the extent of the participation of members of the public in strengthening socialization and democratization practices in new, highly complex, contexts of scientific research. The public is conceptualized to include all citizens no matter their professional origin, including scientists, which promotes the idea of openness and equality of the public sphere where scientific issues are discussed. To be democratic in its practical-political setting, such a conception needs to deal with the problems of participation in a highly mediatized world, where not every member of the public could be included into scientific research. The author thus reflects on the mechanisms which would enable the formation of public forums where the trust of influential public actors as stakeholders of research can be tested.

Society exists in communication, said John Dewey [2], one of the most renowned scholars that dedicated his work to the problems and questions about the public. From this perspective, if scientific communication is to be socialized, then we have to cope with the problems of the degree and direction of socialization, with the problems caused by privileged groups that try to confine the sphere of communication, to promote particular strategic aims, or, in short, to use undemocratic means to fulfil their interests. In this manner, scientific communication heavily pertains to the quality of research, the use of research results, the democratization of science and technology, the access to scientific information, the social recognition of science within society and the control over science and technology-related risks. As to these processes, scientific communication also relates to the characteristics and concepts of public opinion processes about science and technology. Two points should be exposed here. The first is a proposition on how the public should be conceptualized, and the second is the dimensions which participation should cover to strengthen socialization and democratization practices that concern public communication about scientific issues.

It should be stressed that with the increasing complexity in science-society relationships we are facing today, the complexity of scientific communication has also increased significantly. New contexts are different owing to the increasing involvement in the midst of the research process of a large array of social actors and professionals (entrepreneurs, political leaders, administrators, communicators, managers, etc.), making the same boundaries between science and society, or “scientists” and “lay” public, at least to a certain extent, difficult to trace and variable in time. Never before in history have individuals, groups, and organizations in the scientific community been faced with such unmitigated demands for establishing and maintaining confidence in their work. Every scientist faces the requirement of reporting on the results of his or her work, and information from the environment in which their research is conducted forms the basis for the evaluation of the degree of success of their research work. All these communication processes impose on scientists the added burden of managing communication networks through which they are connected to all sub-systems of society.

From the perspective of socialization and democratization of science, the above described processes need the central organizing concept that connects both science and society through public reasoning. The

question here is whether we can speak of scientists and the public or is it more democratic and just to make the ideal public comprising also scientists. The second option is proposed here. Namely, both parts try to reach an agreement about the consequences of transactions and deeds, in which they are not involved directly, if we follow the universal definition about the public that was put forward by Dewey ([2], pg. 45). If the decisions reached are to be legitimate and directed towards common good, participants have to transform their interests that originally stem out from their roles as researchers, entrepreneurs, workers, politicians and so on. In this regards scientists have no privileged position in comparison to all others. It is worth stressing that planned directions of social conduct are renovated by this transformation; however, the results of scientific research cannot be. Research has rules that cannot easily be changed without encroachment upon its autonomy, embedded practices and, first of all, upon the scientific method that scientific community uses. According to this method, the validity of the results of scientific research should not be part of the discussion and voting of the people, no matter how sovereign they are – the results are verified by the scientific community that checks the ideas, rules, techniques and approaches the scientists use. The matter of discussion can only be connected to consequences that implementation of results of scientific inquiry brings about to society, and the impact of technology on daily lives of people. Public discussion thus also pertains to social expectations about science and technology and specific research fields/research lines, on support of the research sectors or specific research fields when they are neglected by other social subsystems, such as those of politics, or when the research sector has to cope with serious problems (bad organization, lack of human capital, etc.). From this perspective even a scientist of one particular scientific discipline or field, for example biology, becomes a member of the "lay" public if the issue discussed is originally from some other scientific discipline, physics for instance. Such an egalitarian conception of the public helps to pin responsibility of the use of science and technology on an equal footing both on scientists and on the rest of society.

The idea of public communication about science is thus not to confront scientists with the rest of society, but to involve all the citizens in an open discussion, whereas citizens here are not marked with different social status, professional knowledge or other socio-economic resources they may possess. Following this idea of open public discussion, it is possible to speak about the publicness of different interests, which are transformed under the authority of the better argument. Here some caution in order to avoid the exclusiveness of the domain is needed, both for socialization (to openly define common norms) and democratization (to open the field) of communication to be heightened. The expression scientific public sphere could be used only in parentheses when it means the domain where public discussion is about science. Designation of distinct, specialized public spheres, such as the one of science, would not only exclusively define the topic, but would also heighten the threshold to access one part of the public domain – the scientific one – in contrast to the threshold that exists to access other parts of the common public sphere. This necessarily entails the overcoming of any one-dimensional (reserved only for the scientific public) and/or one-directional (from science to public) conception of scientific communication, as for example in the case of the early Public Understanding of Science movement, which followed, to put it baldly, a model of distribution of knowledge to an uninformed and disinterested public. The movement started in 1985 after the British Royal Society has issued the report on Public Understanding of Science, known as a Bodmer report [1]. It envisaged a representative type of publicness, if we use the expression of Jürgen Habermas [3]. This type designates the authoritarian nature of publicness, which is performed by those in power in front of the lay people that are denied the participatory role in the decisions that relate to all.

There is broad consensus among scientists and scholars nowadays that a chance to overcome this alienation may be the inclusion of the public into scientific research. For almost two decades Public Engagement in Science movement has tried to conceptualize the inclusion of stakeholders from various institutions of civil society into decisions about the directives of the research, its performance and application of its results into society. However, according to Brian Wynne, "the term stakeholder involvement implies that the issues 'at stake' are already agreed" ([6], pg. 58). By involving only the stakeholders into discussion about public issues concerning science, we still risk to exclude everyone else who is not a stakeholder. The second point is that the stakeholders are usually those who already have the most influence in public issues and already have access to the sphere of scientific research. The problem of public communication about science does not simply end in stakeholder democracy. It opens broad issues about participation and representation in the European and global setting. For example, the corporative organization of mass media, which are nowadays entry points into mediatized public sphere,

as well as the distance between producers of mediated content and the audience, does not – according to scholars who speak about the “new kind of publicness” [5] – enables broad public debate of everybody with everybody, nor are all capable to persuasively articulate their interests. One (practical) solution, stemming from the work of Leon Mayhew [4] on public influence, may lie in public forums (formed by various mass media), in which stakeholders as public prolocutors could meet other members of the public and in which the influence of stakeholders could publicly be tested. Stakeholders from the public would be available for questions from a broader public, if the situation would require it.

Academic discussion about public scientific communication should thus also address the political dimension of the public, which especially involves the issue of equal access to the sphere of public reasoning. Here again the dimensions of the public communication that were mentioned in the beginning come to the fore. Socialization implies common norms and values on which democratization, in the sense of effective communication freedom for each citizen, can be carried out. What is more, such a political definition of the public also strengthens the democratic dimension of the public, because the higher the number of interest groups participating in public discussion, the more decisions are binding for all the society.

Notes and references

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Authors

Peter Sekloča, PhD, is a Research Associate at the Science and Research Centre of Koper, University of Primorska, and a deputy head of the Department of Media Studies at the Faculty of Human Studies. Within the Institute for Mediterranean Humanities and Social Studies, he has been researching issues of minority media, scientific communication, problems of an open and egalitarian public communication, while he also opens up aspects that illuminate public communication processes in light of the political economy of the media. E-mail: peter.sekloca@zrs.upr.si.

Dr. Ernest Ženko is a vice-dean for student affairs at the Faculty of Humanities Koper, and Rectors counsellor for quality assurance and evaluation at University of Primorska. As an Assistant Professor of aesthetics and philosophy of culture, Dr Ženko holds lectures at the Faculty of Humanities Koper (university study programme Cultural studies and anthropology). As a Senior Research Associate, he is also employed at the Koper Science and Research Centre, University of Primorska. His fields of interest are: contemporary philosophy, aesthetics, philosophy of culture, visual culture, philosophy of science. E-mail: ernest.zenko@zrs.upr.si

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