Against the method: could the philosopher feyerabend contribute to science journalism?

Bruno de Pierro
State University of Campinas (UNICAMP)
brunopierro2@gmail.com

Abstract

In my research, I'm examining the relationship between scientific knowledge and traditional knowledge to understand how the collaborative environment in journalism could build a more democratic and pluralist science by means of communication. A question that arises as background is if cyberspace would be capable of changing the scientific orthodoxy, which contributes to the discredit of theories and knowledge always so that new ideas overtake others. Science blogs are changing the way of spreading news, giving scientists and non-scientists the opportunity of being not only the sources, but also the authors of information. However, the increasing use of technology to spread information could be capable of reinforcing the isolation among science and technology areas instead of promoting dialogue between sources and readers. The cyberspace increase access to news production in a decentralized way, but is there room for new theories able to improve the scientific debate? Here I present my plan of study and my preliminary hypothesis sustained by concepts of the philosopher Paul Feyerabend to analyze the current situation of science journalism carried out on the internet. Based on Feyerabend's *Farewell to Reason* that quotes that "non experts frequently know more than specialists and should therefore be consulted", it's possible to defend the idea that, by means of collaborative journalism in science, we can stimulate the scientific debate. This poster is part of an analytical study under development at Labjor-UNICAMP and

discusses whether there is room in science blogs for controversies in science and for the proliferation of theories.

Introduction

In recent years, blogs that specialize in science and technology have secured an important place within the purview of scientific dissemination. Edited by journalists, scientists and in some cases non-specialists, blogs have become a new way to disseminate science, one in which bloggers are among the world's best communicators of science.[1] The 8th World Conference of Science Journalists, held June 24-28, 2013 at the University of Helsinki, Finland, is an example of how science bloggers have been included in large meetings promoted by the scientific community. Organized by the World Federation of Science Journalists (WFSJ), the conference attracted about 800 science journalists and communicators from approximately 80 countries. Many of these journalists work on digital platforms, like blogs, that are becoming firmly positioned as the base of operations for professional journalists who can't find a position in the editorial rooms of traditional media outlets. More than just reporting, the blogs create conditions to broaden reader participation at different levels of interactivity as they discuss and debate scientific issues.[2]

Examples of science bloggers who have gained recognition abound. Proof of this can be found in traditional media itself, which is ceding increasingly more space to blogs on its Internet pages. Great Britain's *The Guardian*, for example, currently has 13 science blogs that cover a range of topics. Also devoting sections to specialized blogs are traditional magazines, many of which are considered points of reference in scientific dissemination and carry great prestige among scientists. An example of this is *Scientific American*, which has 63 science blogs, while *National Geographic* has a special section called Phenomena in which it brings together four well-known science blogs. Even the prestigious journals *Nature* and *Science* have welcomed blogs to their issues as a way to broaden discussions. Other blogs have become well-known by specializing in exposing

[1] Mangini, Jussara (2013), "Mudanças e oportunidades no jornalismo científico", *Agência FAPESP*, August 2. Available at: http://agencia.fapesp.br/17649
[2] Antenor, Samuel; Mangini, Jussara (2013), "The digital connection," *Pesquisa FAPESP magazine*, September. Available at: http://revistapesquisa.fapesp.br/en/2013/10/23/the-digital-connection/

scientific misconduct, as in the case of Retraction Watch, which today is also a source of news for traditional media. Another among these is ScienceBlogs, a network of science blogs formed in the United States that has a Brazilian version known as ScienceBlogs Brasil.

In Brazil, a survey conducted by the magazine *Pesquisa FAPESP*[3] indicates that there are currently approximately 210 science blogs. Overlooking the ones that had no published posts in 2013 and no basic profile of the writers, the blog contingent drops down to less than one hundred, of which 28 are written by journalists, and 69 by non-journalists.

> Among the blogs kept by journalists, 25 are linked to traditional media outlets (10 at five newspapers, 15 at six widely read magazines) and three have no such ties. Of the 69 blogs written by non-journalists, three are also linked to traditional media outlets.[4]

In this scenario, we can claim that the firm positioning of science blogs is generally something positive in that it signifies a dilution of the power traditionally held in the hands of large (traditional) media in covering science. Yet we also have to face the fact that significant advances in the Internet, with its proliferation of social networks, databases, specialized sites and the convergence of a variety of media resources, have changed the entire spectrum of journalism, regardless of whether or not it is specialized in science. This phenomenon is characterized mainly by the fact that the journalist has lost the prerogative of the news. In the scientific community, scientists are increasingly being required to devote their time to the tasks involved with scientific dissemination, as a way to broaden the dialogue between their research and society at large, which is what actually funds science.

It is no coincidence that many science blog owners are scientists rather than journalists. In the traditional model of journalism, a particular subject or piece of

[3] Idem.
[4] Ibidem.

information can only become news through intervention by the journalist, who represents a media vehicle. In the new model, barriers to the production of news are giving way. In this context, the mass of alternative blogs and the proliferation of comments and contributions through social networks are beginning to compete with the more "static" news produced by the traditional media outlets.

In other respects, using the example of the Brazilian case, based on the survey that appeared in the *Pesquisa FAPESP* magazine, we can see that most blogs that are regularly updated are written by non-journalists. Of the blogs written by journalists, most are associated with conventional media outlets. At first glance, this information allows us to present two hypotheses: 1) a good deal of the content published in Brazilian science blogs is produced by non-journalists, which leads us to assume that they are probably written by specialists (nearly 17 blogs are written by physicists, according to the survey); 2) the portion that refers to journalists who have science blogs is mainly tied to traditional media, in other words, they are found in blogs hosted on the websites of traditional newspapers and magazines.

We need to ask ourselves this then: in the case of Brazil, are science blogs unfettered by the ties of the two communities that have always traditionally claimed for themselves the power of knowledge and information, the first being the scientific and academic community that represent western orthodox science, and the second, the community comprised of representatives of the so-called mass media or traditional media, made up of large conglomerates that have traditionally monopolized the symbolic production of journalism? This leads directly to another question: do blogs that are not connected to the traditional model of journalistic production, and that present themselves as alternatives, in fact manage to promote pluralism, creating a diversification of the scientific agenda by presenting readers with an approach that truly inserts science into the culture?

In light of the works of Austrian philosopher Paul Feyerabend (1924-1994), this paper seeks to propose a discussion regarding the direction of the transformations engendered by these science blogs in the larger context of scientific dissemination, and allowing us to identify some of the problems arising from this revolution. These problems, in my view, cannot be considered using just the sciences of communication.

Since they involve issues that are inherent not only to communication and journalism, but also to the question of what actually constitutes science, I propose an approach based on the writings of Feyerabend and his epistemological anarchism. I do so because Feyerabend always raised the problem of unique thought and unique method in science. I understand that science blogs are moving in the direction of diversifying the voices that speak on behalf of science and making scientific production more accessible to the general public. But we need to know whether these new voices are capable of conquering the "monolithic monster" that science has become.

Discussion

In his book entitled *Conquest of Abundance*, posthumously published in 1999, Paul Feyerabend states that the world we inhabit is abundant beyond our wildest imagination. "There are trees, dreams, sunrises; there are thunderstorms, shadows, rivers; there are wars, flea bites, love affairs; there are the lives of people, Gods, entire galaxies." Feyerabend then goes on to acknowledge that only a small fraction of this abundance affects our mind. This selection of what is essential, or rather, what should be considered true (the search for reality) has accompanied the growth of western civilization and played a central role in the process of simplifying the world. As Feyerabend demonstrates, this can be something positive such as an initiative that leads to the discovery of new objects, aspects and relationships. "But this search also has a strong negative component," he says. "It does not accept phenomena as they are; it changes them, either in thought (abstraction) or by actively interfering with them (experimentation). In this way, the Austrian philosopher points out that the experiments remove the ties that bind each process to its environment, thus creating an artificial environment. What happens in this process, then, is that things are removed from the totality that surrounds us.

This reflection by Feyerabend establishes connections with discussions whose main theme is scientific dissemination. It is important to understand that scientific thought, while on the one hand has improved the quality of life in recent centuries, on the other has established itself as a field that imposes its thoughts, methods and conclusions on other possible ways of producing knowledge that do not fit the parameters of science.

Furthermore, within this so-called modern thought, science has played an important role in further reinforcing a model that invested in the splitting of totalities. As Feyerabend said, the totality of the world came to be described as consisting of two parts: a hidden and partly distorted real world, and around it a concealing and disturbing veil. Like in religious contexts, this dichotomy between "Good and Evil" exists in philosophy and western science, expressing reductionist visions.

Although Feyerabend had admitted in the 1992 preface to the third edition of *Against Method* that many things had changed since he first published the book in 1975, he emphasizes that the new environment, which is more open to controversies, still requires a new philosophy and new terms. He also explains that the new environment raises the issue of science versus democracy and treats it as a humanitarian issue rather than an intellectual one. That in fact is the central premise of Feyerabend's work: if science is nothing more than a part, and if its many parts act radically differently, and if the connections between those different ways of acting are tied to specific episodes of research, then the scientific projects have to considered individually.

This, according to him, is essential for the science policies that in the late 1960s began to abandon the notion of having to be one comprehensive science policy. Hence, government agencies are no longer funding "science," but rather, individual projects. That is where Feyerabend introduces the following consideration: "so the word 'scientific' can no longer exclude 'non-scientific' projects." To Feyerabend, non-specialists often know more than specialists and should therefore be consulted. Seen in these terms, he explains, professionals who deal with ecological, social and medical matters have realized that the imposition of rational or scientific procedures can lead to serious material and spiritual problems, even though this imposition is occasionally beneficial, like when it manages to exterminate parasites or put an end to infectious diseases. What it is then is not abandoning scientific precepts, but learning to combine them with local beliefs and customs and thus establish links to life's problems.

In this context, it is necessary to understand how science journalism can make a contribution beyond mere dissemination of science, by incorporating issues from the philosophy of the science itself and developing new mechanisms that illuminate *the sciences* (plural) and not just *science*, in other words, ways of doing science (regional)

that do not always call for legitimizing oneself before the models imposed by others. Is it possible that the blogs that cover science are managing to broaden this science dissemination agenda by incorporating the very problems put forward here? Can the new voices that talk about science and technology in blogs and other Internet tools in fact promote an environment that allows the proliferation of ideas, theories and visions that conflict within science itself, and show that it, science, is more like a storm than a calm sea?

What then is the role of science journalism expressed through blogs that promote debates about the conflicts of science? Why not communicate traditional knowledge, which is still not completely understood by science, but in which science still has very little interest, that is understood by indigenous peoples? Is it possible that by being an accomplice of science, scientific dissemination has instead served as a standard-bearer – or spokesperson – of a method that attempts to impose itself on other forms of knowledge, such as art, metaphysics and Chinese medicine? And how can science blogs really represent a power that is emerging to oppose this static, simplistic and often apolitical journalistic dissemination?

Conclusion

The macro level changes identified by Feyerabend in the field of science are much more visible when we attempt to understand the transition period science is undergoing, as well as when we understand that, within the context of science, there needs to be an approach that takes into account the *collective* citizen. There first has to be an explanation: this paper supports the idea that digital journalism is capable of externally contributing to this opening of science, in a process from the outside in.

As a result, it justifies the important role of what is known as "science journalism" in building a new science – or rather, building a new *representation* of science. This role will certainly go beyond that of simply communicating the *status quo* and the *modus operandi* of science. This journalism that is open to the voices of the most diverse sectors of society contributes precisely when it expands and broadens the channels that question science and are capable of *re-connecting* scientific knowledge to citizens. However, this *re-connection* is not a passive acceptance of ready-made scientific concepts, but instead,

a critical, profane and conscious *re-connection* of the powers of science as well as the limitations on its ability to describe and explain the world and life.

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