

Editorial

Scientific dissemination in Colombia, study case *Institución Universitaria Pascual Bravo*

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Scientific outreach is defined as all those activities that disseminate and spread the scientific knowledge to the society with the main aim that most part of the population can assimilate and achieve scientific findings, theories and new fields of knowledge. The effectivity of this outreach depends on the way to spread it being orally, written or graphically, according to the knowledge area that involves. For example, graphic dissemination it has been important since old times on scientific areas as biology, medicine or physics. In case of oral dissemination of science, it includes from speeches, conferences and seminars, which has increased its discussion and dissemination power thanks to new technologies as live virtual conferences with online videoconferences and chats, as well as the subsequent publication online by written media on open access scientific journals, proceedings or digital books.

In the Anglo-Saxon culture, it has been scientific writers and leading spokesmen as the north Americans Carl Edward Sagan, Stephen Jay Gold and Alan Lightman as well as the British Patrick Moore, who combined research and divulgation (Sierras, 2016). In Latin America, it would be necessary to incentivize leading media figures on science outreach, by means of political policies. Scientific outreach is one of the big challenges to reach on science and technology, especially in Colombia, where social and environmental nature make it difficult to spread the knowledge (Duque, 2016).

In Colombia, Colciencias is the competent authority on science and technology that manages and ensures the quality of the research and scientific publications. Colciencias in 2017 modified the conditions to index the scientific journals to improve the knowledge generation and dissemination

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in Colombia. Vasen & Vilchis (2017) evaluated the used strategies to promote research in Mexico, Argentina and Colombia, concluding that none of those countries uses innovative technologies of scientific outreach of open access and collaborative science.

According Ramirez et al. (2012) scientific dissemination is an intrinsic educational activity to the universities, which have to promote and develop research, spread and communicate it as a public good, to undertake a technologic development impact on the influenced area of each university.

Scientific outreach in the University “Institución Universitaria Pascual Bravo”

In Colombia, scientific events are one of the scientific outreach methodologies implemented, as a study case in the “Institución Universitaria Pascual Bravo” in Medellín. Yearly, the engineering faculty organizes the international meeting of technology and engineering, the International Energy Symposium, a technology and robotics exhibition. All these events are derived from the research groups of the university. All the events result in publishing proceedings of the research results, which are given to the academic community, to the assistants and ultimately the best projects are published into the scientific journal of the university.

The main aim of these scientific events is to promote the social appropriation of knowledge into the “Institución Universitaria Pascual Bravo” strengthening the network between university-enterprises-governments. Other subsequent activities are agreements with peer-universities and the development of technological research products that contribute to the free movement of knowledge. The university also promotes small events that strengthen the research groups and helps to divulgate their research activities locally and internationally.

The innovation capacity of a country or region is linked to its skills to create and divulgate knowledge. In this context the University has searched direct ways to access knowledge to the people which is a radical change because it implies acquiring an active role into the economical scene. On research outreach a change occurred modifying the traditional mechanisms of dissemination and transference as scientific journals (Beraza & Rodriguez, 2010), to

new methodologies as spin offs, regionalization and decentralization of the universities. The University I. U. Pascual Bravo from its development plan is considering and promoting the continuous integration of the research and technological results to the society, in an effort to empower and support research capacity and innovation, by means of research outreach and socializing scientific knowledge in the academic community and the influence area of the university.

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