



Production engineering and scientific divulgation in the middle Amazon

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Abstract. The pandemic required scientific journals to adapt to fake news. Scientific divulgation about COVID-19 has become an objective response by scientists to the denialist movement, which casts doubt on the effectiveness of vaccines, sabotages prevention measures and propagates miraculous cures. At this point and given the climate of narrative dispute, it is important to remember that science does not propose to be absolute truth, it is just a means to reduce uncertainty (Sayão, Sales & Felipe, 2021, Mansur et al., 2021, Moreira, 2020). With the communication revolution promoted by new technologies, scientific divulgation (SD) is being transmitted on a large scale through different media and aimed at different audiences. SD is a way of democratizing knowledge, by using a language that is more accessible to society than that of scientific study (Lima & Giordan, 2021, Porto, Oliveira & Rosa, 2018). In this context of SD, the “Diálogos sobre Itacoatiara” project began in May 2021 with the proposal to discuss social, geographic, and economic aspects, as well as future reflections about the city of Itacoatiara located 265 km from Manaus/AM. This event took place as an initiative of the “Biblioteca on” project, which is an initiative of the library of the Hard Sciences and Technology Institute (ICET), linked to the Federal University of Amazonas (UFAM), and occurred due to remote activities during the pandemic. Therefore, this project was justified by the need to expand actions involving scientific divulgation in the Middle Amazon. In this scenario, the “Diálogos sobre Itacoatiara” met the needs of 2021 to 2022, in a pandemic scenario, however, there was a need for expansion seeking greater rapprochement with local society in the municipalities that make up the middle Amazon (Nhamundá, São Sebastião do Uatumã, Urucará, Silves, Itapiranga, Careiro, Itacoatiara and Parintins), historically, lacked such knowledge. As a result, the “Diálogos Itinerante Itacoatiara (DII)” appears in February 2023. The DII is now coordinated by the Research Center for Economics, Technology, Management, and Innovation (NETGI), linked to the production engineering course at ICET/UFAM. Therefore, this research aimed to create a favorable environment for discussion and scientific divulgation of studies carried out in the sphere of the production engineering course at ICET/UFAM, encouraging the dissemination of scientific, and technological knowledge, innovation, and culture in accessible language. to society in the middle Amazon. DII's target audience is the general population of these municipalities, with special attention to women (fostering scientific careers) and popular organizations (encouraging the rapprochement between production engineering and popular movements). As for the methodology, the proposal for this project was configured as a qualitative activity, where the existence of a dynamic relationship between the real world and the subject is considered, that is, an inseparable link between the objective world and the subjectivity of the subject that does not can be translated into numbers. A holistic perspective of the CD phenomenon was sought, having direct contact with the objective of the study (Silva & Menezes, 2005, Gumesson, 1991, Miles & Huberman, 1994). As for the results, the DII began with the



creation of an environment (acquisition of materials and equipment) for the development of digital content to disseminate research in production engineering to the population of the Middle Amazon. Next, the development of DII's visual identity took place with the participation of a student from the design course at the Faculty of Technology (FT/UFAM); all projects that were and were being developed by ICET's production engineering course were mapped, from scientific initiation projects, technological initiation, extension to research projects with public and/or private funding. At the same time, coordination began with various actors (municipal departments, unions, schools, churches, associations, cooperatives, and social movements, among others) to mobilize the population. In April 2023, the DII was held in the municipality of Careiro (100 km from Manaus) with the participation of municipal public authorities, organizations social movements, and the population in general. Between May and September 2023, DII began to operate in a more compact format in the form of direct debates with communities and social movements. In this way, DII not only came to be characterized as a SD event where professors popularize engineering but also as an environment for active listening to real social demands in the municipalities of Careiro and Itacoatiara. Between October and December 2023, more meetings would be held in two municipalities (Itapiranga and Silves), however, the severe drought in the Amazon region prevented these events from taking place. Even the events that were being held were interrupted, considering that a large part of DII's target audience was affected by the drought. Therefore, the DII ended up becoming an important instrument for scientific divulgation in production engineering in the middle Amazon, supporting the creation of a scientific culture (Grillo, 2013). It is observed that these actions have provoked a process of awakening interest in science, technology, and innovation among the organizations and social movements served, bringing scientific and family discourse closer together (Authier-Revuz, 1999). There is a significant participation of teenagers (female) and women who are increasingly interested in production engineering and science in general. The relevance of this research lies in the use of "dialogues" as a tool for popularizing production engineering studies among the general population in a region lacking this rapprochement between the university and the "amazônida people". Furthermore, it was observed that the "Diálogos Itinerante Itacoatiara" became a space where organizations and popular movements began to frequent this environment for an open debate to present real demands, to reflect on action (Schon 1997, 2000) to build future organizational and social interventions within a scenario of popular and supportive engineering in the Amazon (Alvear et al., 2020)..

Keywords: Scientific divulgation, Production engineering, Amazon.

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