ENABLING EFFECTIVE CROSS-INDUSTRY COLLABORATION, FOSTERING INNOVATION AND EDUCATIONAL ENGAGEMENT THROUGH NON-TRADITIONAL INITIATIVES

Abstract

“Space belongs to all” we often hear. However, most people do not relate their lives to space. Most people know space through news stories and entertainment such as science fiction represented in books, movies and games. Some might know that space technology is making their lives easier but they would not consider themselves able to contribute in any way. At the same time, the space community has remained mostly among itself. We argue for the need to bring space to diverse cultural groups and spaces. We further argue that by creating platforms to foster collaboration between space and non-space specialists, research is innovated, and that engaging the next generation contributes either directly or indirectly towards building the future space community workforce.

This paper describes the lessons learned from a 5-phase non-traditional educational-cultural initiative that involved a diverse range of activities that included, but was not limited to, knowledge transfer, new technology research, and post project cultural and educational events. In the described initiative, space was brought directly to the people and was designed to create partnerships, agreements, and formalize relations between space and non-space individuals. By applying non-traditional collaborative techniques, we enabled specialists from other industries with technical and non-technical backgrounds to get involved in space activities. Furthermore, we expanded the initiative’s repertoire of collaboration formats to Maker Spaces and non-profit organizations in order to further disseminate space knowledge and to get the public involved in space activities. So far, the initiative has been implemented in the United States, India and Belgium. We will discuss three case studies that aim to serve as a blueprint for effective cross collaboration regarding logistics, communication, and workplace culture as well as providing problem solving strategies with innovative solutions to the challenges when working in cross-industry and cross-discipline environments.

The paper intends to outline best practices for anyone who wishes to participate in or organize cross-cultural, cross-industry, multidisciplinary initiatives. It further outlines how this initiative led to innovative research and inspiring the next generation inside and outside the space community.