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THE ROLE OF DESIGN IN THE ENTREPRENEURIAL SPACE INDUSTRY

Abstract

This research paper provides an overview of entrepreneurial space activities from a socio-technical point of view. On one hand, this perspective permits us to better understand the mechanisms and dynamics of this reality and to define its unique characteristics. On the other, it serves as a starting point to demonstrate the potential areas of design intervention and the crucial role of designers as essential actors in the growth of this newly emerging industry.

After 50 years of space activities, only around 550 people have been to orbit until now, most of them being extensively prepared scientists and military men trained both physiologically and psychologically in order to adapt to the highly engineered and extremely complicated artificial environments, characterized above all by elementary levels of habitability. A future with general public gaining access to space leads to an unprecedented problem: the presence of the “untrained” customer who would be interacting with artificial instruments, environments and interfaces bound to subdue their user and hosts to incredible amount of stress; hence the crucial role of designers to create highly dynamic environments designed to adapt to their users.

Today there are companies developing commercial space habitats, interplanetary bases, interplanetary voyages and even asteroid mining activities. The only way to really understand the extent and nature of entrepreneurial space as well as predict its behaviour is by considering it a newly emerging complex socio-technical system: the entrepreneurs as the system builders with their inventions in form of artefacts, companies, organizations, technical and social elements that are co-enabling and co-evolving.