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THE APPLICATION OF THE BLOCKCHAIN TECHNOLOGY TO THE SPACE INDUSTRY

**Abstract**

The blockchain is depicted as the most revolutionary tool of this decade. “The Economist” titled a front- page article back in 2015, “Blockchain, the Trust Machine”, followed by an unprecedented media fury about it. Despite all that attention, the blockchain still remains unknown for a vast majority of the population. This paper aims to provide a complete analysis of the application of the blockchain technology to the space industry. To this end, the mechanism and the current blockchains will be assessed in a first part in order to lay the foundation for its application to the industry. Applied to space, the main characteristic underlying cryptocurrencies can bring even more power and be beneficial in the exploration of the spatial territory. Companies are starting to put the blockchain into orbit, while others are using it to optimize the development of spacecrafts and satellites. As a matter of facts, recently, large space firms are adopting blockchain technology. Giants like NASA and ESA are studying ways to use this technology for their next missions. The results suggest that the blockchain could be useful both on Earth and in space. Another fundamental application of the blockchain technology finds its source in smart-contracts. It consists of introducing an open source computer program that will work autonomously within the chain and without the intervention of any third party. This could definitely improve the efficiency and rapidity of the administration of space agencies and companies. Nevertheless, while this technology could possibly be a global game changer once mature, it would be unreasonable not to assess the risks, the loopholes and its difficult legal framework. This is the reason why the last part of this paper will be focused on a constructive criticism of the blockchain.