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EARTH'S ORBITS AS A UNESCO WORLD HERITAGE SITE

Abstract

Earth's orbits are a natural resource being overused. Orbits contain hundreds of satellites, helping us navigate our daily lives. Satellites facilitate our communications, to determine the weather, and provide key information for navigation purposes. Even though satellites help us map the climate effects of excessive resource use and consumption on Earth, we are paying too little attention to how crowded Earth's orbits are becoming. In the pursuit of better technologies, the preservation of this environment is often discarded which in turn presents the bigger issue that space debris poses to life in space and on earth. In the midst of the rapid technological evolution that we're living in today, this study aims to suggest a sustainable solution for both space exploration and exploitation, advocating for space democratization. This project looks at the issue of space debris by considering the Earth's orbits as an environment to be protected, recognizing it as an intangible natural and cultural heritage. With the projected launch schedules of satellites and other rockets, orbits will get even more crowded, posing a hazard to human life, mostly in LEO, as well to missions and objects that cost billions, years of planning, organization, and work. All of this could disintegrate in a second if debris hits. It might seem like a problem for the future but is urgent, although it might look that only future generations would have the capabilities and tools to solve. As humanity continues with its quest for space exploration and cohabitation on other planets, it is our duty to secure continuous and safe access to space for everyone. To achieve this, the researchers took an archaeological approach and analyzed the UNESCO World Heritage criteria and policies to understand what makes Earth's orbits a UNESCO World Heritage Site. The results will show how this approach will aid in safeguarding this environment for us and the future, and creating a precedent for implementing more precise laws for outer space environmental and human heritage protection. In summary, the primary focus of this project is to address the issue of space debris and the democratization of space from a unique perspective. It emphasizes the importance of the creation of a set of policies, created from a collaboration from academia, industries, and space agencies, that is fundamental to guarantee the safeguarding of Earth's orbits, which will guarantee the continuous growth of the space economy and the democratization of space.