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EFFECTIVENESS OF GAMIFICATION TECHNIQUES IN ASTROBIOLOGY AND CITIZEN SCIENCE: OPPORTUNITIES AND CHALLENGES

Abstract

The paper covers humankind's search for extraterrestrial life and investigates the reasons for the lack of any confirmed detections. The various methods that were previously used have been thoroughly reviewed, such as radio and microwaves and detection of spectra. The confirmation of extraterrestrial life's existence has not been successful despite the diverse techniques being used in by multiple agencies like SETI and NASA. This paper looks towards lateral techniques and unconventional approaches to not only look for extraterrestrial life but also to generate the platform required to find various methods of detection like–Gamification citizen science. Citizen science has been transmuted through Gamification techniques being used in protein studies, experimental data to space archaeology. Gamification has been employed for the detection of habitable exoplanets is extensively reviewed. The paper also looks at primary data collected through surveys in order to understand the reach and extent of citizen that is embedded in daily life. The paper also looks towards game theory to study and understand how deep-rooted astrobiology is in real life. The idea of using technology and ideas will pave the way for the revolution of research in astrobiology as well as the method of consuming knowledge. The merit of this idea is covered.