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THE SYSTEM THINKING GAMES FOR THE UNDERSTANDING THE SPACE ACTIVITY
MISCONCEPTIONS

Abstract

The climate change and space debris are the symptom of the illness of the environment (nevertheless on the Earth or within outer space) by the overuse, so transmission on this problem the same approach of resolving as an automatic reaction of humanity is not surprising. For example, in the both cases it was posed the ambition plans of limitation (greenhouse gas emissions need to peak before 2025 and decline by 43). According to this similarity, researching the gamification of space sustainability based on existing approaches of climate change gamification is also reasonable. The author suggests using system thinking games, elaborated by the Dennis Meadows. The aim of these games is to grasp the complexity of the mechanisms and issues of climate change by metaphoric games. They are simultaneously simple and compelling because the results lay in the universal human patterns of behaviour, that make their results transferable into different problems of real-world through debriefing (set of questions). Thus, in the presentation author reveals how system thinking games serve for the deeply comprehension of space activity problems. For this aim, such misconceptions will be observed through metaphoric games: 1) habitual behaviour (it is possible, but difficult, because non-comfortable in first time); 2) inappropriate frames (enlarge perceptions of time, place and sense of responsibility) 3) uncertainty (interactions not entirely understood or accurately measured); 4) autonomous behaviour (the intricate system structure not fully under human control) 5) long delays – efforts must surpass resistance in the short term and advance goals for the future; 6) magnification – consider signals that do not initially seem important or significant.