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The space economy: what are the socio-economic impacts? (3)

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HUMAN SPACEFLIGHT IN SOCIAL MEDIA: PROMOTING SPACE EXPLORATION THROUGH
TWITTER**Abstract**

While space based technologies for Earth application are enjoying flourishing development, space exploration is suffering from lack of motivation and financial support. The number of people going into space has decreased. However, the benefits stemming from space exploration are numerous: science, technological development, socio-economic benefits, leadership and education, for example. Recently, robotic exploration missions have enjoyed a strong influence on public perception, utilizing video and social media communication. However, despite these new promotional tools, the personal connection drawn from an astronaut's experience and testimony remains a powerful way to promote space exploration, human spaceflight, and capitalize on the previously mentioned benefits. Astronauts embody national prestige and international leadership. They inspire younger generations and motivate them to undertake scientific studies. They are a very efficient way to gain public support, and therefore embody an incentive for states to fund space human spaceflight programs.

For example, European Space Agency (ESA) astronauts have a very particular status: They are a strong symbol of the European cooperation, but they remain very nationalistic. On one hand, national prestige due to astronaut's public perception is an incentive for state members to fund ESA. On the other hand, the astronaut's influence can be difficult to extend across borders, especially due to language barriers and lack of identification. The question is then: how can ESA astronauts can be more representative of Europe as a space entity and what should be implemented in ESA, European Union Commission and each country's national agency to better use an astronaut's prestige?

This paper will analyze the current effects of astronauts' image on the public across different countries using, for example, data from social media. The tradeoff between competition and cooperation to promote human spaceflights will be analyzed. We will particularly study the case of the ESA astronauts, comparing with NASA astronauts and we will define recommendations for communication and educational programs to maximize the benefits associated with human space flight.