SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Enabling the Future - Developing the Space Workforce (5)

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ALL HANDS ON DECK: FROM BUILDING SKYSCRAPERS TO BUILDING THE SPACE INFRASTRUCTURE

Abstract

Skyscrapers were once seen as unrealistic fantasy structures. Today they dot the skyline in most major cities. The process involved an extensive workforce made up of everyday people. The majority of people throughout the global society are still socially conditioned to see themselves as alienated from the outer space development process. However, the building up of the outer space infrastructure will require an outer space development workforce. This will mean jobs for a wide variety of skilled people from all walks of life. This could be the solution for the current economic crisis and the high unemployment rate. It may also serve as a reason to bring nations together to achieve a common goal. As a practical concern, opportunities likely to emerge as outer space is developed, might prove to be the key for economic prosperity, job creation, workforce development and retraining, positive international relations, race and ethnic relations, and the creation of networks for internship and employment opportunities for many people, including students and members of the global general public.

This paper will discuss and explore strategies for this scenario to happen. It will also discuss new opportunities to make innovation happen. This includes online courses to enable a broad range of people to learn skill-sets necessary for innovation in solar, green technology and renewable energy techniques useful for space settlements, spaceships, life support systems and for protecting the outer space environment.

The paper will also address how these activities can be linked to achieving key goals set forth in the NASA Authorization Act of 2010 such as Section 202(b) which discusses the restructuring of the exploration program so that it "allows the systems developed under the restructured exploration program to serve as potential test beds for the demonstration of key enabling exploration technologies and operational capabilities", as set forth in paragraph 8, and paragraph 9, which indicate that the manner "prepares for and enables human missions to a variety of destinations in the inner solar system, including cislunar space, the Moon, Lagrangian points, near-Earth objects, and ultimately Mars and its moons". The paper will propose that creating a global alliance of collaborative networks between business entities, entrepreneurs, institutions, governmental entities, universities, K-12 institutions, students and individuals may provide the solution that will enable the proposed solutions to occur.