CONTEMPLATING THE GLOBAL CITIZEN CONCEPT AS A METHOD TO REDUCE POTENTIAL CROSS-CULTURAL BARRIERS LIKELY TO HINDER PEACEFUL RELATIONS DURING LONG TERM SPACE MISSIONS

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Abstract

As international partnerships, in preparation for missions to Mars and other destinations become more common, social and behavioral scientists must prepare key actors for cross-cultural barriers likely to arise. Clashes between people may arise during long duration space missions preventing successful missions from occurring.

The United States has been a trendsetter during the various periods of advances in outer space. This is likely to continue, with increased contributions from multiple international partners. However, as new missions, both human and robotic, begin to occur more frequently, and as key actors practice partnering across international boundaries, we should also expect cross-cultural barriers to arise. International Space Exploration Coordination Group (ISECG), the international partnership involving 14 space agencies (ASI, CNES, CNSA, CSA, CSIRO, DLR, ESA, ISRO, JAXA, KARI, NASA, NSAU, Roscosmos and UKSA), may prove to be a harbinger for future missions throughout outer space.

This paper will operationalize the popular concept of the “global citizen” and discuss ideas about what the concept means and how to produce global citizens as a method for potentially reducing foreseeable cross-cultural conflicts during space missions. It will analyze past historical, ideological, religious, social, moral, ethical, economic, psychological, institutional social and behavioral patterns, and varying perceptions regarding civil rights and human rights, with an eye towards understanding and explaining potential sites of soft conflict.

I. INTRODUCTION

It’s 2012 and humankind is at the brink of outer space development. When people begin to understand the power of global citizenship they form global cooperative partnerships capable of profound advancements. For example, the International Space Exploration Coordination Group (ISECG), a partnership consisting of 14 space agencies (ASI, CNES, CNSA, CSA, CSIRO, DLR, ESA, ISRO, JAXA, KARI, NASA, NSAU, Roscosmos and UKSA) is a harbinger for future long duration space missions. The ISECG has taken on the goal of developing a long-range human space exploration strategy and aims to send humans to Mars by 2030. In other words, global partnerships and joint ventures are happening more than ever to pool resources to accomplish cheaper missions, faster, to the Moon, Mars, asteroids and elsewhere.

Another example of this new trend involves, emerging trends including advanced space transportation systems, private spacecraft development, commercial space habitats, space stations, space settlements, commercial space mining, spacecraft trajectory optimization techniques for landing on near Earth asteroids, commercial spaceport construction, interstellar-interplanetary-international telecommunications and space exploration missions to near Earth asteroids, the Moon, Mars and Mars’ two moons – Phobos and Deimos. Google, Inc. sponsors the Google
Lunar X Prize – a $30,000,000 competition (GOOG) to encourage a private robotic race to the Moon. Private companies from around the world were invited to compete to land a privately funded robotic rover on the Moon. This pattern will undoubtedly continue as new space industries emerge. By combining resources and human talent from various nations, humankind connects its missing links in its individual nations into a synergistic whole from contributions of every nation. That is why the global citizen model, when applied to outer space development, will profoundly enhance space research and development, as well as in long duration space missions. Furthermore, adopting the model of global citizenship worldwide can help solve problems we collectively face on Earth.

As we find ourselves in the industrial space revolution, mounted with the current technologies connecting our world such as the Internet, a new type of citizen is emerging – the global citizen. The industrial revolution and globalization processes led to needs for products and services which stretched beyond regional needs to global needs. The telecommunications industry has provided many benefits to people all over the world. However, wider inequality gaps also appeared during this time. The first wave of outer space development changed the world. This process included establishing a satellite telecommunications infrastructure in the geostationary orbit along with the globalization of new high tech products and services. For example, widespread global use of cell phones, the Internet, Facebook, Skype, and wireless financial transactions all seems to have happened overnight. Now people are conceptualizing and articulating the impact of outer space development on various fields of study, professions, races, ethnicities, creeds, gender, regions, religions, classes, nations and ages. A broad range of people can prepare themselves to qualify for opportunities arising as newly emerging industries begin to expand and become established.

The second wave of outer space development began with the legalization of private spaceship travel, the plan to retire the NASA space shuttle fleet, and the preparation of companies to take on space transport from Low Earth Orbit to Earth, space transportation systems and space exploration missions to Near Earth objects (i.e. asteroids), Mars, the moons of Mars and our Moon. The Obama Administration’s recent decision to cancel NASA’s Constellation Program in conjunction with 2010 space policy initiatives, signal the beginning of newly emerging industries, likely to drive the global economy for many years to come, similar to satellite telecommunications industries impact. This includes private space travel, space tourism, spaceport development, commercial space mining and space habitats.

The new space race is no longer between the U.S. and the U.S.S.R. The space landscape consists of new government and private key players. This new arena includes China, India, SpaceX, Virgin Galactic, Lockheed Martin, Boeing and other key actors. Although the NASA Shuttle Fleet has retired, this has not put a damper on a booming new industry. Companies are pioneering space transportation firsts such as Lockheed Martin’s reported mission aimed at landing on the near Earth asteroid named “Plymouth Rock”. A manned mission to Mars is envisioned for some time in the 2030s. In 2001 political lobbying activities began, and a momentum towards private space travel laws began. This resulted in the Commercial Space Launch Amendments Act of 2004 and The President’s Commission hearings and published report of 2004 which lays the foundation for increased participation of the private sector in spaceship development and other NASA like activities. Space tourism became a promising seed industry for private space travel.

A critical number of space entrepreneurs have paved the way towards new space industries, as they did during the satellite telecommunications revolution during the 1980s and 1990s. This is only the beginning of a new trend towards further space commercialization and privatization. It is important to understand why this is such a seminal moment in the development of the industry. This new model will allow for the private sector to take on full responsibility for the execution of the vision of the many nations for space transportation and development. If we define global citizenship as a technique to connect people around the world and complement each other’s abilities for a common cause, seeing parts of ourselves in the diversity, then we can clearly understand how this technique can speed up progress needed to become a truly spacefaring civilization. Contrary to belief that when government regulated industries become privatized, there is a disconnect for opportunities of the general public, the global
citizenship model demonstrates how individuals from any demographic can draw upon global networks consisting of other individuals necessary to succeed in common projects. This has the potential of putting the common person at the forefront of newly emerging space industries.

Today space commercialization has become widely accepted within the international community. While governments have funded a huge portion of the research and development costs for the space program, the private sector objectives will leverage the infrastructure investments already made and begin to monetize their own capital investment activities. While space flights and tourism may provide more immediate revenues, this is just the beginning of an emerging industry. The real wealth creation associated with outer space development will come from those companies that are willing and able to develop, build and maintain sustainable and livable communities in outer space for the exploration, extraction and shipment of minerals and plants life to earth. The only way this can happen is if the architects at the table of the space initiatives are part of the team that is envisioning this new world with global citizenship at its helm.

It is the eve of outer space development, but few people are aware of this. In the absence of awareness, people cannot prepare for the opportunities that will arise; and so the vast wealth likely to flow to Earth from outer space will cause ever-greater inequality and instability in our already unequal and unstable world.

We are putting out a call to visionary thinkers to increase levels of global citizenship as we embark on future space missions.

II. COMBINING HUMANITY'S POTENTIAL

The old paradigms of nationalism are fading away in the light of this globalizing new frontier. The general public is gaining major interest in outer space possibilities in relation to job opportunities, creative innovations, and emerging trends. We can no longer deny that humanity is now looking into space for solutions to life on earth such as solar power, asteroid mining, abundance of helium 3 and other natural resources, as well as telecommunication technology. In light of all these aspirations, we propose global citizenship as a method for reducing foreseeable cross-cultural conflicts during long duration space missions. The main intent of global citizenship is a means for global cultural synthesis. From the perspective of evolution, an organism exposed to diversity of environment improves it ability for adaptation. Adaptation leads to more effective survival. Similarly, effective modalities of global citizenship immerse the individuals into diverse environments of cultural perspectives. The more perspectives an individual is able to apply to situations, the more diverse solutions will be available. This relates to how organisms are able to adapts and survive speaking from an evolutionary standpoint, therefore, global citizenships when properly applied is a means of evolutionary advancement and accelerated potentialities of super intelligence.

III. THINKING ABOUT INTERDEPENDENCE: SINGULARITY VS. GLOBAL CITIZENSHIP

Singularity deals with interdependence between humans and machines as a means to super intelligence. Global citizenship deals with interdependence among people of the world as a means to super intelligence. Singularity deals with merging humans beings with technology. Global citizenship deals with merging human consciousness with diversity of cross-cultural perceptions. Singularity is often associated with the creation of super human intelligence through human and artificial intelligence i.e.; infusing nanobot technology with the human blood cells. Themes associated with this phenomenon often include the idea of amplified or greater problem solving and inventive skills in human beings that will be so exponential that no data formed projection can be made from the point of singularity onward. It is subject to debate and varying perspectives whether or not this singularity would be beneficial or harmful to society. The timeframe for singularity’s advent is still uncertain, and until then we must use available models to maximize human intelligence.
IV. GLOBAL CITIZENSHIP DEFINED

Adams & Carfagna (2006) in *Coming of Age in a Globalized World: The Next Generation* suggest that in order to survive and to succeed in today’s world, people need to understand the trends that go along with globalization so that they can shape their lives as “global citizens”. In *The Practice of Global Citizenship*, Cabrera (2010: 13) defines global citizenship as involving “sets of moral understandings that give emphasis to attributes common to all individuals regardless of their national or other group affiliations”. Similarly, in *Global Citizenship Education in Post-Secondary Institutions: Theories, Practices, Politics*, Shultz, Abdi & Richardson (2011: 82) suggest that it is “urgent to discover a type of education capable of shaping a citizen able to live in this globalized world in a more ethnical, humane, and emancipated manner”. In *The Dimensions of Global Citizenship: Political Identity Beyond the Nation-State*, O’Byrne (2003) argues that global citizenship is not a utopian unrealistic fantasy, rather it has been around throughout history, and that world citizenship is a real concept. O’Byrne argues that global citizenship as a possible solution to many of the world’s problems. The trend poses questions of culture in the content of national identity and being able to relate to others beyond their nation-state identity. However, a deeper aim of global citizenship would be for an individual to perceive their citizenship as part of a world to perceive each nation as an integral part of their own citizenship. Most approaches and most of the literature on global citizenship has focused on global citizenship as a means of cultural bridge building to promote human rights, as a means to promote peace, justice and equality, or to create a nonviolent world. While these are all good goals and need to be strived for, we argue herein that cultivating global citizenship is a way to produce super intelligence and abilities through the medium of synthesis of cultural perspectives, so that humankind can solve more obstacles to space travel.

Global citizenship is important for newly emerging space trends. Outer space development is likely to serve as a precursor for a new paradigm shift, and global citizenship is a necessary step in becoming a spacefaring world. There are universal themes throughout all cultures such as architecture, music, fashion, cuisine, art and linguistics. However, just as science has been universalized, arts and social and behavioral sciences can also be merged across international borders. Using the Internet, for example, we can draw on the past, present and future, of global phenomena to synthesize and create new expressions of esthetic beauty. The goal of global citizenship is to encourage new genres of music, fashion, art, cuisine and architecture synthesized for a new human enlightenment age - the space age. This will create a new human expression that conceives a global perspective. Once we can conceive the earth as our home, then we will be able to understand the universe as our world. In order to help reduce cross cultural barriers, we can also enable people to learn multiple languages in fast and innovative ways incorporating insights from existing literacy programs as well as advancing new models.

Humankind doesn’t have to repeat ineffective, destructive patterns of the past. Global citizenship can provide a tool for people to use new dimensions of thought and to tap into their genius and creativity to solve problems related to survival and prosperity for outer space development. When we talk about Outer Space Development, we are talking about technological innovations of great magnitude. Many monumental innovations are emerging today. It is becoming ever clearer that what we can conceive, we can create.

V. RECOMMENDATIONS

- We recommend applied global citizenship through mediums such as training in extreme environmental condition i.e. mountainous, polar wintering expeditions, deep sea diving, sense depravation experiences.¹

¹ See report entitled “Psychology And Culture During Long-Duration Space Missions, International Academy of Astronautics Study Group on Psychology and Culture During Long-Duration Space Missions”, Final Report (Study Group)(Revised) November 28, 2006 at:
We recommend diverse language immersion geared towards fluency and cross cultural sensitivity training.

We recommend communication and interpersonal skill training so that interpersonal issues can be identified and people can be trained to cope, manage, handle and shift potential sources of conflict over to cooperative endeavors.

We recommend pre-mission training aimed at enhancing their experiential training regarding various intercultural dimensions which may arise for interpersonal communication.

We recommend lectures that enable people to develop new abilities and enhanced abilities to persevere and to cope to improve behavioral health, social skills, interpersonal skills, coping mechanisms, mistrust and other social and behavioral issues that may arise while traveling in outer space with a diverse groups of crew members.

We recommend the crew members receive training to enable them to deconstruct biased information regarding people’s culture, nationality, race, gender, religion, ethnicity and age, since, so much of this is inherited thought from the mass media and other discourses, crew member will need to undergo pre-mission training to learn how to deconstruct hidden exercises of power, hegemony and ideology likely to infect interpersonal communications in ways likely to offend, harm or otherwise prevent cooperation.

We recommend meditation techniques as a form of coping strategies to relieve boredom, stress, fear, anxiety and to enhance inner peace during long term space missions.

VI. CONCLUSION

When we define global citizenship as a means to reach super intelligence from a national citizenship to a global one, the perspective of the universe becomes an intriguing one. An individual who fully embraces global citizenship as a means of self-synthesis will always find themselves on the frontier of exploration and discovery. Not as a hobby, but as an active pursuit to synthesize the diversity of experience to greater levels of intelligence. The continued expansion of human presence in outer space with the intent of synthesis of discovery into more refined and profound levels of knowledge is the advent of a universal being. This could lead to a conscious evolution that leaves our conflicting methods of communication to the scrap yards to be melted and made ready for new use. We will use them to build a new world free from conflict, free from division. The world will truly live as one, and we will enjoy our birthright; to co-create our own universal existence.

VII. REFERENCES:


Darren J. O’Byrne, The Dimensions of Global Citizenship: Political Identity Beyond the Nation-State, O’Byrne (Portland, Oregon, 2003)
