
**UNIVERSALISATION,
THE INTERCONNECTION OF OUTER SPACE
DEVELOPMENT AND THE UN 2030 SDGS:
THE 21ST CENTURY LEADERSHIP IMPERATIVE**

by

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A B S T R A C T

As we witness the exponential investment in space development, exploration and security, we must pause to think collectively about the governance and sustainability of Earth as control extends into the universe. We need to prepare the next generation of citizens for this emerging field. We are experiencing a shift from globalisation to 'universalisation' as this century's paradigm. Universalisation asserts that we are living in 'one world within the universe' and that universal sustainability requires a cooperative and inclusive approach to development for the benefit of all. The United Nations 2030 Agenda for Sustainable Development (UN2030 Agenda) speaks to creating a broad and universal policy agenda devoted to global development and cooperation to benefit all countries and parts of the world. Both universalisation and the UN2030 Agenda share similar core values and are timely given mounting pressures for the effective governance of 'universal' issues. This paper aims to contribute to 1) the dialogue of including space activities in the UN2030 Agenda; and 2) the imperative for more students, scholars, citizens and policy makers to be engaged in space development and its implications for the governance of Earth. It is imperative that higher education prepare the next generation of citizens with the skills and tools necessary to confidently and competently live in the new paradigm and lead this development agenda. The paper contends that 21st century leaders be culturally astute, globally discerning, and internationally connected so as to create an atmosphere of cooperation and sustainability.

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I. INTRODUCTION

Within the last quarter century, our world has come to witness the profound interconnectedness of nations, peoples, and spaces – we have globalised. The long-term effects of globalisation are being debated fervently within the academic and political spheres where policy is created.¹ However, missing through all of this debate is a realisation that our globalising world has already begun to take the next step in this process, and it is not towards nationalism that we are headed but towards universalism. Universalisation will undoubtedly be the most demanding transformation of the 21st century.

The concept of universalisation has emerged through two distinct but parallel tracts. The first is symptomatic of the transition from the UN's Millennium Development Goals to the Sustainable Development Goals (UN SDGs), the latter being a recognition by all governments that solving the world's problems requires a 'universal' policy approach in which everyone has a stake in the sustainability of humanity.² The second is the development of outer space as the next frontier and, by extension, a realisation that Earth is simply one world within an ever-expanding universe with potentially infinite possibilities for development and, at the same time, profound risks to humanity. Further, and possibly even more importantly, is the appreciation that with the continued investment and development of space, we view through an entirely new lens the governance of Earth. We must consider: do those who control space therefore also control Earth?

What unites these two parallel tracts is the recognition that, in an era of universalisation, the cooperation and inclusion of all people is the only paradigm through which the benefit of all nations and humankind can materialise: it is an interconnectedness of development, combined with the intricate interface between the governance of Earth and space. This all-encompassing frontier will undoubtedly lead to a new model(s) for the governance of Earth within the universe, in which the powerbase shifts to space. A borderless context with boundless potential in an ever expanding and uncharted 'infinite' universe being opened to us through advances in technology can now be envisaged for both space and Earth and may become our new reality. What is disconcerting is the paucity of scholarship, talent development and public debate that will be necessary

1 Jose Antonio Ocampo, *Rethinking Global Economic and Social Governance*, (2010) 1:1 Journal of Globalization and Development 6.

2 UN-DESA, *Sustainable Development Goals*, United Nations Department of Economic and Social Affairs, 2015, online: <www.sustainabledevelopment.un.org/sdgs>.

to guide humanity into this new era; the values, skills and knowledge required for leadership in the coming universal era must be brought to the forefront. The stakes are significant and wide-ranging, and far too few are currently engaged in this emerging arena.

Engaging our citizens and the next generation of leaders who will be navigating this era in the principles and practices of universalisation is imperative. Accordingly, our attention needs to be focused on the distinct role that higher education can play to prepare the current and future generations towards sustainably developing humanity as a 'world within the universe'.

II. THE CENTURY OF UNIVERSALISATION

Universalisation itself is the logical result and expansion of globalisation, in which the principles of our increasingly interconnected world are extended into the context of an increasingly accessible and connected universe.³ Fundamentally, universalisation brings to the forefront the reality that space development is not the panacea to our world's problems. The development of space and Earth both require a global commitment to cooperation and inclusivity; a laudable goal for which humanity, as a whole, has yet to achieve. Space also brings a whole new set of unexplored opportunities and variables as well as territorial risks. And unlike other frontiers in the history of humankind, there is an increasing appreciation that risks associated with both the nature of space development and who and how space and Earth are then governed creates a heightened level of insecurity

This recent concept further expands upon Kwame Anthony Appiah's ideological construct of *cosmopolitanism*, which proclaims the necessity of a transcendent expansion upon the ways in which we currently perceive human relations and interaction.⁴ This conceptual outline of cosmopolitanism, in combination with the inevitable reconceptualisation of global governance, requires an authentic appreciation and application of the concept of universalisation to our social structures, institutions, and everyday lives.

³ Lorna Jean Edmonds & WE Hewitt, *The 21st Century and the Advent of Universalization*, in Ram Jakhu, Kuan Wei Chen and Yaw Nyampong, "Monograph Series III: Global Space Governance" (Montreal: McGill Center for Research in Air and Space Law, 2015).

⁴ Kwame Anthony Appiah, "Cosmopolitanism: Ethics in a World of Strangers" (New York: W.W. Norton & Company, 2006).

The shift from a singular world to an inconceivably infinite universal domain calls into question our current practices related to governance and development. Both showcase that the only means for sustainability is through a capacity to communicate and cooperate across all disciplines, sectors, and around the world to address our most pressing issues on Earth and in space. As we transition from a global agenda to a universal one, a new and yet to be defined foundation of governance will emerge and serve as the driving force. As a result, collectively we must begin to construct the relationship between who governs outer space, who governs Earth, and the intersectionality of these two. Furthermore, if the histories behind global colonisation, land settlement, and resource rights have taught us anything, it is that without a concrete legal framework for the rules and standards of engagement, exploitation and inequality will become the norm. As asserted by Garrett Hardin half a century ago, the ‘tragedy of the commons’⁵ is an issue that has tested the human capacity for cooperation and collective action, often with less than optimistic consequences. This is already being felt in the resulting issues arising from our current process of globalisation as well.⁶ If humanity hopes to live sustainably on Earth and continue to develop near space, all the while recognising it is just one of at least 10 billion other planets in our galaxy, we cannot afford to make this same mistake on such a large, nearly infinite scale.⁷

III. THE UN SUSTAINABLE DEVELOPMENT GOALS

This foundation of universalisation already aligns with one of the primary initiatives of the SDGs. The 17 SDGs, developed in concert with all 193 UN member States, aim to address specific key gaps in the development of humanity (such as the eradication of poverty, improvements in healthcare, education, and equality). The approach is to achieve the goals through sustainable, cooperative and inclusive methods for development that advance diversity, interdisciplinary and cross-sector engagement.⁸

In establishing the foundation for universalisation, we must examine the ways in which we are currently defining and expanding this concept. The UN2030 Agenda has defined their sustainability policy as follows: “[The SDGs] are universal goals and targets which involve the entire

⁵ Garrett Hardin, *The Tragedy of the Commons*, (1968) 162:3859 *Science* 1243.

⁶ Ocampo, *supra* note 1.

⁷ Arnaud Cassan et al, *One or more bound planets per Milky Way star from microlensing observations*, (2012) 481 *Nature* 167 at 169.

⁸ UN-DESA, *supra* note 2.

world...they are integrated and indivisible".⁹ They represent:

a broad and universal policy agenda ... devoting ourselves collectively to the pursuit of global development and of 'win-win' cooperation which can bring huge gains to all countries and all parts of the world.¹⁰

This conceptualisation is similar to how the term 'universal human rights' has been employed, intending to evoke a shared commonality and humanity across a global range of individual differences of nationality, race, gender, religion, age, and ability.

The UN SDGs serve as a demonstration of the changing mentality from older nationalistic approaches to a humanistic ideal of promoting universally beneficial solutions for all. This is the crux of what universalisation aims to achieve, that only through global cooperation, understanding, and collective and inclusive development can humanity begin to unite and develop together. The only distinction is that development extends into the universe. These goals are not simply laudable ideals but serve as necessary investments in our future.

IV. CHALLENGES IN SPACE DEVELOPMENT

Space development is growing exponentially as both the private sector and government agencies move toward undertaking space resource extraction, developing alternative energy sources, colonisation efforts, advancing research, and increasing communications. Within this arena are critical and significant issues, including the management of space-based technology and its debris, ownership over asteroid mining, discerning 'who will go to space', and increasing military presence. This is combined with the appreciation that governance of outer space influences Earth's governance, and calls for globally engaged cooperation and dialogue in these matters.

As it stands, there exist only a limited number of treaties that address these key issues. The 1967 Outer Space Treaty¹¹ has been the guiding framework related to space for the last half century. However, cooperation to address some of the most pressing issues, such as increasing space debris and the

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies*, opened for signature on 27 Jan 1967, 610 UNTS 205 (entered into force 10 Oct 1967).

militarisation of outer space, is still severely lagging. There are roughly 20,000 artificial objects classified as space debris within Earth's orbit, with this number expected to triple by 2030.¹² These objects pose serious threats to orbiting satellites, government space stations, and both civil and commercial space systems. The militarisation of outer-space poses an even greater threat, and relates back to the question of whether the entity controlling space would also control Earth? Such threats must be met with proactive, collaborative and inclusive engagement by all to ensure sustainability.

V. UNIVERSALISATION AND GLOBAL/UNIVERSAL DEVELOPMENT

These ambitious initiatives – space development and the UN SDGs – share a joint-relationship with the process and need for universalisation, as the success of one is largely dependent on the success of the other. Both space development and the UN SDGs require a reexamination of our current methods of cooperation and inclusion among institutions and individuals around the world, and each seek to utilise these improvements for the betterment of all of humanity. Both appreciate that for institutions and individuals to be successful in these aims, “zero-sum” nationalist approaches cannot exist in the face of these daunting challenges, and universalisation's call for interdisciplinary collaboration must become the norm in tackling these challenges.

This type of transnational cooperation must be holistic and authentic, as questions of governance and authority will become increasingly nuanced. Currently, there are a several ways in which governance structures can be viewed as they pertain to universal development. First, transnational structures and institutions that exist on Earth to facilitate development and growth into outer space as well as working to solve and address other key global issues. Second, governance *within* the realm of outer space. This applies to space stations, regulations of space development in near-Earth, colonisable communities and planets, and any other arena in which humans will live and work that exists outside of Earth. New institutions and approaches will need to be planned, created, and adopted by all countries in a collaborative and fair manner, in order to ensure peace and prosperity beyond our planet. Third, the intersectionality of these two areas, and the relationship between them. Plainly, does control of outer space denote governance over Earth? and vice-versa. This relationship

¹² General William Shelton, *Remarks at the National Space Symposium in April 2011*, Space Foundation, Colorado Springs, Colorado.

will require proactive collaboration and delicate construction. It seems highly unlikely at this stage that one of these forms of government will exist without the other in the future, as the transnational governance on Earth will facilitate universal development and exploration, serving as the foundation of space governance. Governance in space will allow us to move not just beyond the boundaries of our planet, but beyond the nationalistic ideological boundaries which have existed throughout history. Or rather, it is more likely that it will force us to look beyond our borders into a borderless context as what will matter more is who is in control of space, not who is in control of a geographic space. It is not to be compared with the oceans or Antarctica as these domains have borders whereas space does not.

Universalisation is built upon this notion of shared commonality and collective cooperation, joined by the incorporation of outer space activities and issues into our national governments, global institutions, and everyday lives. The notion that universalisation is closely connected to the issues faced by institutions and individuals speaks to the concept of a 'universal agenda'. This is manifested in the UN SDGs which suggests that we, as a species, are all in this together, and that issues affecting any particular region or group affect us all. In achieving progress, key actors and individuals must begin jettisoning the idea of 'nation-building' and adopt an approach of 'world-building.' In this pursuit of global development, and subsequent universal development, only a shared humanistic "win-win" approach and cooperation can bring benefits to all countries and all parts of the world.

VI. INSTITUTIONS AND INDIVIDUALS AS UNIVERSAL LEADERS

As we move from globalisation into universalisation, two key groups that make up our societies will serve as the essential leaders and conduits of this change: institutions and individuals. As it stands, there is a gap in leadership and there is no pathway forward. It is paramount that leadership comes from investing in collaborative global talent and ideas on the institutional level, with the intention of encouraging the public and individuals to adopt a 'universal' way of development, innovation and decision making.

The global public and private sector institutions, the United Nations and other key transnational organisations, and ideally national institutions and governments, must establish foundational and structural support for

universalisation. These institutions serve as both the vanguard and the base for the future of universalisation efforts, including outer space governance. Furthermore, they will be the institutions that shape public opinion and policy in matters pertaining to civilisation's next steps. These institutions need to be the catalyst underpinnings as we transition from a global agenda to a universal agenda. The necessity of their leadership via cooperative and inclusive methods for problem solving and universal development cannot be overstated.

Accordingly, more than energy, the talent and ideas necessary to address global and space development across all sectors within a universal policy agenda is this century's most critical natural resource. Without individuals armed with the knowledge, the experience, and the network to advance a cooperative and inclusive strategy for the benefit of all, the path to sustainability for all will most likely come into question. It is our citizens in every region of the world and also those working in space, who will affect the necessary transformation in decision-making.

To foster this talent and grow these ideas, key areas must be addressed in the global sphere. Growth must be sustained by carefully examining population stability and access to resources, such as education, clean air, water, land and space, good health, and jobs. Further, increasingly interconnected trade and travel can be coopted to encourage the idea that talent is mobile and ideas are borderless. It will also be important to provide citizens in every country with the freedoms and right to choose their own path (wherever that may physically take them), thereby fostering environments for inspiration, creativity, and collaboration. Through these means, a venue for effecting change for the benefit of all emerges.

It is an absolute necessity to educate and prepare our citizens to be the future leaders through a perspective of universalisation and universal cooperation and interest. Unlike global institutions and leaders, leaders in a universal agenda fully embrace cooperative and inclusive strategies in which 'equity of all, for all, and with all' is not a goal but the operating paradigm for investing in our future. This will consist of a requisite set of skills and tools to ensure that they are confident, competent, collaborative, connected and compassionate to live and lead in one world within the universe where humanity matters. With this set of leadership characteristics, these individuals can begin to mainstream the universalistic approach towards global development and increase awareness and investment in this vast arena of possibilities and risks.

The symbiotic relationship between both institutions and individual leadership will be a key determinant in the successful adoption and implementation of concepts relating to universalisation and outer space activities. Further, it must again be emphasised that this preparation and training of future leaders is not just for the betterment of a singular region or nation, but for all of humanity. This is the unified mentality that institutions and individuals alike must adopt. This is the leadership paradigm for the 21st century.

VII. THE ROLE OF HIGHER EDUCATION

As our global institutions and individuals begin to build an interdependent relationship, it falls upon all institutions to adopt and educate their community on how to succeed within this universal context. There is one institution, however, that offers a critical resource to advancing sustainability in this era: higher education. Higher education offers one of the largest and most influential global networks for education, research, service and innovation. And these networks include other institutions of learning from K-12 to universities, governments, NGOs, and the public and private sectors nationally, internationally and in space. Higher education is the epicenter for research and education with its core values and principles being diversity, inclusion, creativity, social responsibility, and personal growth. Furthermore, it represents one of the safest and most neutral grounds for fostering public dialogue and critical questioning of changing times and events.

Higher education institutions are one of the few organisations that are united in their mission to produce talent and ideas through research and creative activities to lead in the new paradigm of universal development. Indeed, the very concept of the 'university', deriving from the Latin 'universitas' meaning "the whole of society" is a microcosm of the teachings of universalisation itself. These institutions have always existed in order to facilitate cooperation, encourage forward-thinking approaches and ideas, and develop leaders, both in an individual and collective sense. Learning from past colonisation experiences and the vast research on sustainable development is vital as we explore this emerging and transformative frontier. Higher education needs to identify its role in shaping the attitudes, behaviors, and competencies of our next generation to lead. Fostering a worldview, borderless movement of ideas and knowledge, networks of friendships from across the disciplines, sectors and nations around the world, and cooperative strategies for innovation and decision-making are at the core of leadership in this century of universalisation.

In constructing and continuing this foundation, it is an absolute necessity to begin incorporating concepts of universalisation (in which space governance and the UN SDGs are central tenets) into systems of higher education to prepare future leaders for what will undoubtedly be one of the driving forces of development in this century. At its core, higher education needs to transform its education, research, service, and network activities whereby academic programs and their outcomes shift its primary focus from nation building to world building; from border to borderless frontiers; from exclusive to inclusive approaches to development; from disciplinary to interdisciplinary problem solving; and from conflict to cooperation and negotiation for resolving differences. The ultimate aim is to graduate competent, confident, collaborative, connected, and compassionate graduates who understand the world within the universe and are capable of solving problems while fostering sustainability.

The underlying supposition that is now too big to ignore is that if we do not begin to actively build this foundation now, our citizens will be unprepared and unable to address this defining issue of the 21st century. Our world and its future leaders cannot afford to be “behind the curve” in the incipient field of universalisation and universal issues. Leadership in the century of universalisation must be based on the promotion of authentic cooperation across all sectors and all geography including outer space. Universalisation implies that we must always be looking forward, and considering the future, and how our present actions will shape it. This development and cooperation is for future generations. They will be the ones tasked with facing one of the greatest challenges humanity will ever see, living beyond our own planet. It is this consideration for future generations, and doing everything possible to guarantee their success, which must always be kept in mind.

It is incumbent upon us to build an informed and educated foundation as well as new knowledge for decision making as the world begins to enter this infinite frontier and vital chapter in human history. To address this pressing need for leadership development in the time of transformation, higher education institutions must mainstream the concept of universalisation into campus life and the pedagogical practices, research and experiential learning across all disciplines. Universalisation and space governance are, in their own right, new fields of study. All students today must graduate with a general understanding of our world within the universe and the value of language, culture, diversity, cooperation and connections for leadership in whatever livelihood they choose; in essence,

higher education must reaffirm its ownership for leading with one universal vision.

VIII. CONCLUSION

Globalisation has been one of the critical constructs since the beginning of time with the last century being witness to the greatest structural and technological advancement. Globalisation has led to world-wide transformation and mobility including advances in space. Universalisation, however, will undoubtedly become the most pressing issue of the next century. This is not something we will face down the road; rather, we are already facing it now. Nationalism is symptomatic of a failed reaction to globalisation and a critical reminder of the need to engage the public in structural transformation in which higher education and its network can and must play a critical role. The UN has laid the groundwork through its UN SDGs and will undoubtedly play a key role in governing and mediating as a key facilitator and actor. However, their ability and that of other institutions to bring about this new paradigm of governance will only be ensured through the preparation of the next generation of leaders and the support from the institutions that are enabling and impacting the changes to lead and govern in a universal context. Higher education offers a foundation for preparation through the production and sharing of talent and ideas. It is a hub for inspiring, innovating and exploring new ideas, opportunities and experiences. Assuming a key role in preparing our world to effectively embrace universalisation to assure concerted and collective action for the betterment of humankind, the next generation of leaders must be competent, confident, collaborative, connected, and compassionate. Only through this incorporation and proper preparation can humanity address the most pressing issue of the 21st century in a sustainable manner. As we enter this infinite frontier, universalisation and space exploration will not be the final frontier, just the next.

