Interstellar Relations and The Pursuit of Space Diplomacy

Space Diplomacy, for many, has been strictly a concept cradled in science fiction. Parallel to the books, films and television shows dedicated to this topic, have also been real world, on the ground initiatives spanning decades of research and programs, with the purpose of reaching the stars. This paper illuminates this groundwork and the various steps taken through platforms from which the future of space diplomacy efforts can lift off. With the support of historical space laws, regulations and treatises, and rapidly emerging technologies such as artificial intelligence, humans are well equipped to utilize every technical advantage to improve our presence in space. The research methods further mined these documents to pull together the collection of stakeholders involved in providing insight into the shared responsibility of space. Results determined how a variety of stakeholders, whilst from different professions, have similar goals toward space diplomacy and governance and these common interests are further parlayed in their importance of becoming the strong base of space diplomacy development in the future.

Keywords: *Space, Diplomacy, Governance, International Affairs, Law*

ONLY FOR REVIEW

Introduction

Space Diplomacy is no longer the topic of science fiction, it is a reality that nations are not only taking seriously, but have been implementing steps to oversee, for decades. Managing national borders seated on the earths crusts is one way to exercise sovereignty on a planet. Defending those borders has caused world leaders to enact many laws and regulations which protect their interests, citizens, and quality of life. Borders on earth have been drawn on maps, divided up by walls and given symbolic names so that everyone knows where they are at any given time and exactly who rules that space. Yet, we continue to dialogue about what happens when there are no borders and world leaders must make the case for who has the right to govern fluid space, more specifically the space above the divided earth we all live on? And to whom, does the responsibility go to protect the earth and what needs to happen for all to feel protected?

The specific question framing this paper is, “What is needed from our collection of humans and resources on Earth to adequately create a productive space governance model and diplomatically sustain interstellar relations through it’s inevitable evolutions?” The ongoing battle for Space Diplomacy and interstellar relations, seeks to answer this question for those living on earth as well as those who seek to explore the borders beyond this planet. Space Diplomacy, as it were, gives humans another chance to create something together, for the benefit of all. The conversations about our place in “space” aren’t new, but the race to get it right, together, is just getting started.

The following paper delves into a literature review surrounding the foundational laws of which space diplomacy and governance stand. The review will detail early thoughts and exploration involving modern government and

scientific initiatives in this area. Further descriptions will outline the early stages of space governance and proceed to cover the evolution of laws, conventions and safety measures. The following section, methodology and materials, will discuss the purpose and process of obtaining essential information from these same resources albeit through a different lens, furthermore, identifying the stakeholders which influence space governance and diplomacy with the larger scope of finding how these stakeholders overlap in ideology and contribution for the future of space diplomacy; and furthermore, what might still be missing from this diplomatic puzzle. The discussion section will provide insight into the common ground interests of the stakeholders found throughout the history and current knowledge on space governance and diplomacy; by highlighting challenges, recommendations and insights into these common interests. Finally, the conclusion will bring the paper together to answer the overall question framing this topic and provide a way forward for all stakeholders hoping to be a part of Interstellar Relations and the Pursuit of Space Diplomacy.

Literature Review

The laws of outer space are not something waiting to be decided in the future, they have existed for decades. While the idea of an exact *Law of Space* does not yet exist, rules for managing this territory come out of current international and domestic laws. Space law must be discussed in line with sectors of government and laws that intersect with air, space and communication, such as aviation, military weapons and commercial travel. The concept of space law is also reviewed through the lens of sovereign nations and the air/space that exists directly above their borders (Broward, 1957). For this reason, space law as it is now can be viewed through the same laws citizens and nations must adhere to on the ground withing their borders. Some of these laws include but are not limited to criminal law, environmental laws, commercial laws, and as it is currently being regulated, Artificial Intelligence regulations. Most pertinent to the history of space law are the regulations dating back to the early twentieth century and continue to evolve.

In 1919, at the Paris Convention, international law regulated that the territory above each sovereign nation also belonged to that nation (The Postal History of ICAO, n.d.). In 1944, the Chicago Convention later re-emphasized this right (ICAO, n.d.). From this moment on, the idea of the word “international” took on a new territory, that of space (Review of International Studies, 1978). Therefore, international space councils, conventions and oversight began to take place. One of the most well-known initiatives was the National Aeronautics and Space Administration (NASA), which was created from the Space Act of 1958 (Kauffman, 2004). Aerospace Law was its own entity; however, NASA understood the importance of transnational space boundaries. Many initiatives came out of the interest in space exploration including the International Geophysical Year International Space Policy (Uri, 2022), the Space Act, the Treaty on Principles Governing the Activities of States

ONLY FOR REVIEW

in the Exploration of Outer Space, including the Moon and Other Celestial Bodies (the Outer Space Treaty) (UNOOSA, 1966), and the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS, n.d.).

Space laws and treaties would not have taken place without their first being laws and advances in aviation and military. Therefore, some regulations worth mentioning include aviation laws and military initiatives which would later help to reinforce (or accompany) any international space law that would be created in the future. Aviation law governs flight and air travel for personal, commercial and government activities (Convention on International Civil Aviation, 1944). It includes both laws governing who can use airspace and why as well as to which regulations and laws all using the space must adhere (The Paris Convention of 1919, n.d.). Some notable advances in aviation law include the Paris Convention of Aviation Law Code in 1910 (The Paris Convention of 1919, n.d.)., the Air Commerce Act in 1926 (Federal Aviation Administration, 2021), and the Civil Aeronautics Act in 1938 (Hester, 1938). It is important to understand these laws as it pertains to airspace within national borders because these laws influence the regulations that will go into place for the use of outer space above these borders.

The 1967 Outer Space Treaty states that "the establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies are forbidden…The moon and other celestial bodies must be used exclusively for peaceful purposes" (Arms Control Association, 2024). The treaty further goes into specifics about the legal rules binding military operations in this space. As such, all "bases, installations, and fortifications", should be peaceful additions and not used for military purposes. However, as with any territory, there are concerns with safety on a large scale. While using space for military purposes is forbidden, this does not prevent nations from preparing to protect themselves in space should they ever need to. Enter the recently initiated, but decades in development addition of the Unites States Space Force, a new branch of military located at the Pentagon, established in 2019 (United States Space Force, n.d.). This new branch is a part of the long-standing department of the Air Force. The main difference between the two is that the air force is capable of lethal deployment anywhere in the world (in/on earths territories) whereas the space force primarily protects the United States in space (United States Department of Defense, n.d.). However, both must still adhere to the previous aviation and space laws which are internationally and domestically recognized.

Current laws and regulations while seemingly coming out of organic events on earth, also became increasingly important as wars broke out across the globe. As more nations grappled with safety concerns, defending their borders, and essentially aiming to be the best at what they did whether it was weapons, trade or living the most civilized life; finding new and innovative ways to protect one's nation's interests became an international phenomenon and utilizing the possibilities of airspace was a part of this endeavor. Airspace truly became international and a multileveled engagement. From the military to leisure travel, airspace had become a universal playground, one that would bring people

together across borders in a variety of ways, including the understanding of different types of diplomacy.

Contemporaries also ponder the hopes and concerns regarding space governance. Many discuss the opportunity for space governance to bring us together while also discussing similarities to colonialism (Agananba, 2024). On one account, colonialism exists in the efforts to "colonize" other planets for our own interests or survival (Agananba, 2024). In other ways, colonialism rears its head with how space governance will be managed (Agananba, 2024). Either way, space governance is right in line with the current international system, which unfortunately still has remnants of colonialism if only, albeit in different forms (Agananba, 2024). Likewise, the idea of "conflict" in space is like conflict on earth's surface (Agananba, 2024). Space governance policymakers should be mindful of this fact and take the time to understand how we must address ideological conflicts as well as those "in space" conflicts we have yet to experience. This notion of conflict also connects with the conversation of military presence in space. Depending on what types of conflicts occur, does there need to be extra protections to diffuse conflict and thus a change in international space law – to allow for military installations? Should this presence of protectionists be military or peacekeepers without weapons? The same issues rise for these questions and include deciding what type of protections are needed and who/what will oversee these entities.

Space governance school of thought has existed probably as long as humans have been able to view the stars. The ideas of what can be is still very much beholden to the international laws we currently have in place. As the record has shown, humans' interest in space will continue throughout time. Finding strategies to work together will be critical to understanding our ongoing human needs on the earth's surface as well as our future among the stars.

Methodology

The primary materials for this study include documents such as international conventions, national legislation, and other frameworks sourced from the United Nations treaties for outer space, various Government Public Records and legislation, and contributions expert astrophysicists. A qualitative documentary analysis was applied to these materials. Lastly, a comparative analysis was used to compare older conventions with newer ones or theorized anticipated conventions from scientists, lawmakers, and government leaders. This overall analysis was conducted to determine across conventions, lawmakers, governments, scientists and civilians, what essentially matters most for the future of space diplomacy and what is needed to sustain this endeavor along with space governance.

The process of collecting materials began with a search for prior treaties, laws and conventions in historical records. Additionally, existing laws, and initiatives were identified that would highlight what is currently taking place in the realm of space governance and who led those initiatives. Next, expert

ONLY FOR REVIEW

astrophysicist materials, hypothesis and predictions were selected to account for what scientists believe is possible for the future of space governance. The collection of materials was then used to determine if these stakeholders (scientists, governments, lawmakers and civilians) had common goals, hopes and ideas for governing space, essentially getting to a unified, working concept of space diplomacy, and possibly a universal definition.

All materials were reviewed to determine most importantly, "What is needed from our collection of humans and resources on Earth to adequately create a productive space governance model and diplomatically sustain interstellar relations through it's inevitable evolutions?".

Results

Table 1. *Themes Across Stakeholder Interests*

Theme	Title	Common Concern Across Stakeholders	Implications	Notes & Future Questions
1	Role of Agencies and Institutions	Accountability and Responsibility (scientist, governments, lawmakers, civilians)	Must have some checks and balances to prevent competitive corruption.	Will be an ongoing conversation as interests change, the world evolves and new information about space emerges.
2	Challenges and Philosophical Insights	The business of space; agreement that there must be some trusted structures/models in place. -Space Governance Law -Space Governance Law Council/Board -Space Governance Inc. -Space Governance Bank (scientist, governments, lawmakers, civilians)	Business models are not the only example but will come to surface when determining resources and management.	Determine other models to draw from or create something new.
3	Current International System Comparison	How our world handles artificial Intelligence is the best comparison for space governance, at the moment.	We have the opportunity now to gain understating in how we work together for a common interest or concern.	Following the A.I. governance and diplomacy, can help stakeholders create better systems that come afterwards.

ONLY FOR REVIEW

		(governments, lawmakers)		
4	A Definition for "Space Diplomacy"	How do we explain "space diplomacy" when there isn't a single definition of "diplomacy" (scientist, lawmakers, civilians)	More time spent on theosophical ideas, than practical needs.	Determine a universal definition – that can evolve and be modified as needed.

The results were compiled in a table (see table 1) to demonstrate themes threaded throughout the materials used to identify stakeholder's interests in the future of space diplomacy and governance. While the same sources that were used to set up the initial review highlighted "how" space governance has evolved through laws, the technical means and the current structures set up to support growth to this point; the research methods used these sources as well as others through a new lens to mine out the stakeholder voices who ultimately will make the future decisions in this effort. Moreover, the methods reviewed who the stakeholders were and which ones currently have been permitted to contribute to the future of space diplomacy. The findings revealed how businesses, government departments, and scientists have been involved from the beginning, albeit each which their own limits and access. However, very few civilian contributions were considered. Still, this research determined civilians were still limited because the only civilians who've had a strong enough voice were those making films and television shows about science fiction. This gap helped frame the discussion which underscores new challenges and insights, yet involving more stakeholders and hopefully new strategies that were not included before.

Discussion

Comparative analysis demonstrates several overall themes concerning scientists, lawmakers, governments, and civilians, who each have a stake in what will become the future of space diplomacy and governance. The following discussion utilized the diplomatic strategy of "mapping interests" to dive into the following themes while offering insight into their implications.

Theme 1: Role of Agencies and Institutions

Space governance would not be adequate without oversight that included a multidisciplinary board. As such, this is an all-hands-on deck situation where many agencies should have access to the conversation. Everyone needs to cooperate, and all minds should be welcome in the efforts to solve problems related to space governance and to manage it. Since agencies have a long history of relevance in the international system, this seems a viable option to use for the explanation of oversight (COPUOS, n.d.]. Oversight in this case has less to do with a governing body whose only main role to sign off on other subgroups work

ONLY FOR REVIEW

in this area. Those oversight committees have their place, but this one may need to be a true roundtable of diverse perspectives who all have a stake in the future of space governance. One in which all members have equal voting power regardless of the size of their current land/nation or the bank account. Granted, this idealistic view of an equitable roundtable committee may not have fully been successful in the past, it does not mean it cannot work in the future.

Many of these entities are already involved in space as well as international law but should remain so such as the United Nations (UN), various world governments, academics, and diplomatic institutions. The UN already has skin in the game with space governance. As one of the entities that established the Outer Space Treaty, the UN has the capability to provide spaces for governing councils to discuss and deliberate on the evolution of laws and regulations governing space. Of course, should the UN already have too much focus in other areas, it is feasible for a new organization to develop and become this host of "space" councils. The new organization can be made up of the same individuals but exist on its own.

At the tables seated at the UN space talks would include various world government representatives, academics from a variety of disciplines and diplomatic individuals. Government officials need to be at the table because they control the laws of their nations, and nothing is happening that involves their citizens way of life without their approval. Some government angles such as military branches may be revamped to operate as peaceful conflict managers. Likewise, diplomatic representatives should be at the table because they often represent both their government and provide mediation between nations. Diplomats will also serve as an example for the installation of planetary ambassadors, should we ever need them. Scientists, especially those involved in aeronautics and astrophysics should be at the table to provide expertise about the realities of space travel, exploration, and other advances. Furthermore, other academics outside of science should also be at the table because of their understanding of sociology, philosophy, and history – all subjects that will help the council decide the best ways to move forward on space related governance, *together*, without hopefully making the same mistakes that were made in the past. Lastly, smaller committees outside of international relations have been successful in convening with diverse members and propelling common goals. Perhaps, these agencies can adopt the policy of including multigenerational (different ages) and multilevel (different professional roles) members to help gain holistic insight into the future of space governance.

Theme 2: Challenges & Philosophical Insights

The existing world of space governance, while it has some formidable policy footsteps to follow in, is not without its challenges. Visualizing space governance is an essential step to manifesting it now and in the future. However, romanticizing it, at least too soon, can prevent true progress in this endeavor. There is no shortage of ideas of how to go about the implementation of space governance, whether we take our influence from previous space exploration,

ONLY FOR REVIEW

aviation law, international law, or Hollywood idealizations such as Star Trek. Yet, all these resources grapple with the same questions of governance. What will be the laws, who will oversee them, who will truly own the space and how much will it cost? The challenges below offer some philosophical insight and rationales for cohesive governance regarding "The Business of Space".

Challenge of Space Governance Laws

Space Law currently lives somewhere inside the families of international law, aviation law and military law. Space laws also encompass various treatises, acts, and regulations; all of which are housed throughout different governments and institutions. Perhaps, Space Law should evolve from the actual universal laws of space which highlights an understanding of the interconnectivity of all things, from a singularity. Space Law could stem from a universally agreed upon concept with the addition of sub laws, as needed.

This insight can achieve social equity on earth and in space by offering a platform for uplifting all stakeholder voices in the decision-making process and changing the language associated with space governance to be more universal.

This allows all parties to contribute valuable institutional input to the overall structure of space governance law.

Challenge of the Space Governance Law Council/Board

Establishing a comprehensive council will be necessary to oversee space law so that it is always in the benefit for all. However, human history has shown that the mere creation of councils does not always entail fair oversight, or equitable delivery of services. In fact, currently existing councils, such as the US National Space Council (National Space Council, 2024), grapple with this fact. Some concerns involve elitist decision making or elitist council memberships, lack of diverse representation, as well as a lack of holistic knowledge about certain subjects and population needs. If space governance is a humanitarian issue, these issues need to be addressed before establishing the space council.

This allows the council to make good on the laws by showing all persons within the institution that not only their diplomacy work contributions, but also their holistic institutional input is valuable. This creates more "buy-in" from contributors. Additionally, silos in advancement work and lack of perspectives lead to stalled progress and fewer opportunities to solve problems.

Challenge of the Space Governance Inc.

Our councils must ponder on "who owns space?". This inclusion has more to deal with our distant neighbors in space rather than those of us on earth. Whether we believe in extra-terrestrials or not, earth is just one planet. If we continue to be a divisive planet of people who continue to fight over trivial matters on earth, we will not come together on space governance. If we cannot agree on a collective oversight of our little part of space, we will not be able to adequality express or defend ourselves. As such, we must understand who or

ONLY FOR REVIEW

what institutional body will answer for us should our distant neighbors come calling.

> *This insight encourages the council to establish what our "corporate" model will be and who will speak on behalf of the earth, should that opportunity arise. It will demonstrate the foresight to place someone all representatives trust in this pivotal position and train such a person/s to step into this diplomatic role. Some considerations include what we will call ourselves, what is our value/mission, and who represents us, whether that be one person or a few people.*

Challenge of the Space Governance Bank

Putting the post scarcity world economy aside for just a minute, our current space endeavors are and will continue to be very expensive. There are many funding sources for space related endeavors that we've already seen such as NASA, different governments, private investors, and space technology companies like SPACE X (SpaceX, n.d.). There are also many initiatives in place creating products we'll need to sustain common citizens (and colonies) in space, not just astronauts. The reality is that earth still has many issues that need urgent funding which help provide emergency aid to those who desperately need it. This is another connection to the humanitarian question. Not only do we need to fix the humanitarian issues we have on earth, but we can also never truly fund the space products we need if we don't fix our earthly problems and we risk replicating the same issues in space, costing more money or whatever currency will be used in the future.

> *This insight provides the council space to deliberate on new ways of trade and finance as it pertains to space governance and space relations. This will also encourage the council to gain a true understanding of our current resources and account for anticipated space governance "expenses" and needs in the future.*

Theme 3: Current International System Comparison – Artificial Intelligence

Current frameworks existing in the international system may aid in the understanding of the future use and meaning of space governance. A realization of which all stakeholders agree. The emergence of Artificial Intelligence has been highlighted by each of the aforementioned stakeholders. Some policies in existence include those endeavors that are equally fluid as air and space, and universally impacts everyone on the planet, such as artificial intelligence. Like most "new" concepts, artificial intelligence started off as an optimistic ideology and something that would help humans become more efficient across many sectors. Likewise, artificial intelligence as a concept was not without its criticisms should it be abused or used for nefarious means. Nonetheless, it has evolved, remains a universal phenomenon across cultures and like space governance, has its own laws and regulations by which users must abide. AI is just as space governance is concerned, an international relations component (Schrodt, 1991). Furthermore, the role of artificial intelligence in space governance has been assessed in governmental chatter as well as Hollywood films. Artificial intelligence laws and regulations are in its infancy, however its

ONLY FOR REVIEW

use across sectors is well underway. AI is used in everything from simple internet searches to academic papers, to self-driving cars and social media. As of March 2024, AI oversight in the United States currently involves "requiring federal agencies to implement safeguards, expand transparency, advance innovation and strengthen governance of AI use within the federal government" (American Hospital Association, 2024).

As nations move into an ever-advancing technological future, AI and space governance will forever be linked. Examples of the two coming together have already taken the form of satellites, drones, missiles, and pilotless planes. There are regulations for each, but there should be further regulations on how to use them together. For instance, current AI regulations include the recent 2024 European Union Artificial Intelligence Act as well as the four risk levels included (Jain, 2024). The caveat to this is that the EU law is just that, the EU law. The same protocols will not be upheld in other nations and other nations will soon develop their own regulations. Regarding the transnational fluid nature of AI, this can pose problems for travelers, businesses and those hoping to utilize AI without interruption or difference in quality. In this case, just as AI is a fluid transnational phenomenon that can inform how to regulate space governance, this is also an example of what can happen if nations do not work together to create common or even one set of space governance regulations.

Theme 4: A Definition for "Space Diplomacy"

There has been no unifying definition of space diplomacy, although many definitions come close to a common idea of diplomacy in space. Stakeholders must also consider the separate definitions for "Space" and "Diplomacy". According to Space.com, space "…is the zone above and around our planet where there is no air to breathe or to scatter light. An almost perfect vacuum, that's not quite empty." (Howell, 2022). In the context of space governance, "space" refers to the space being meant for peaceful use and exploration (Von der Dunk, 2020). While there is also, not one single definition of "diplomacy", common threads include the notions of communication, negotiations, and the management relationships (Boveja, 2019). Diving deeper, lawmakers contribute space diplomacy to security and norm setting (Space Commerce Advisory Committee Act, n.d.), and a scientific working definition focuses on "data and shared responsibilities to maintain open communication and trust through shared objective truths" (Science Diplomacy and International Collaboration, 2026). In some cases, according to astrophysicist, Dr. Neil deGrasse Tyson, it can mean having a different vantage point of which to view earth from above without all its categories, divisions and tribalism. That being able to be in space, from this perspective should instantly create a sense of global unity [deGrasse Tyson, 2022]. According to physicists, Dr. Michio Kaku, it is scientifically necessary for us to work together in order to take our place in the stars and protect ourselves [Kaku, 2018]. Writers and filmmakers, such as Gene Rodenberry, who represented the "civilians" in this research, have taken space diplomacy in their books, films and television shows to be an exercise in curiosity, diversity understanding, for everyone's benefit and self-actualization and respect, rather

UNDER PEER REVIEW

than for conquest (Silbert, 2021). With so many definitions, it is a positive notion to realize this idea of "how we approach space" is an active conversation across industries and professions, just as it is across borders – illuminating a common interest from which we can work through together.

Conclusion

The methods of this paper sought to understand the question, "What is needed from our collection of humans and resources on Earth to adequately create a productive space governance model and diplomatically sustain interstellar relations through it's inevitable evolutions?". Our background in space governance streams through both esoteric and spiritual interests in the stars as well as scientific and safety motivations. However, the discussion in this paper demonstrates how space governance and diplomacy is not one-dimensional and must be multilayered to work well. It should not only be discussed as means to control territory in space or to decide what is left in outer space for our leaders to discover. Space governance, like international and domestic law, still has connections to the humans left on the planet. In this case, it is important to understand how much of space governance is a humanitarian issue as well as what as humans, are we trying to achieve by controlling the space well above our borders.

For an initiative to be classified as a humanitarian issue, it must have certain qualities. According to the State Department, it must be promoting human welfare, well-being, social reform, and solidarity – Agreement and support for members of a group" (National Museum of American Diplomacy, n.d.). In this case, space governance and space diplomacy will always work in tandem. They are both important in providing opportunities to create systems of more sustainable living, food sources and other basic, survival needs. Some would argue that it must also invoke some aspects of universalism which include characteristics of "range of human experiences, is intrinsic and therefore similar across humans and cultures" (Ackerly, 2008). On the heels of universalism is the idea that representatives from many nations should be a part of the multidisciplinary oversight of space governance. Civilian voices, unless they were film and television producers, were left out of the conversation when determining the concepts of space governance and space diplomacy. However, civilian contributions will be heavily involved (if not directly acknowledged) in space diplomacy through their work and/or adherence to future laws, and therefore, should be included in future conversations. Essentially, if space governance will truly impact everyone, not only should there be a representative sample of overseers, but also the knowledge of space governance should be shared with everyone from the leader of nation to the child learning about space in primary school. Most importantly, our oversight committees should all be in agreement about the multiple purposes of space governance. Moreover, the reasons for governing space, together, should be outlined clearly through diplomatic means. Ultimately, once a functional, foundational governance of space is put into place, space diplomacy can be used to determine the ongoing

ONLY IN REVIEW

nuances of that governance that will arise including but not limited to, basic rights, jurisdiction and resource rights, planetary sovereignty, enforcement and security, communication, environmental biosecurity, and future exploration – and which of these should be most important, now. We had to start somewhere, but there is much more to be done.

Space Governance has always been a reality for planet Earth and has been a part of our daily lives for decades. Just open your GPS, check your weather or complete a financial transaction, among other things. We have entered a period where technology is developing rapidly and current struggles on earth are also increasingly rising. Our understanding of our place in the universe, our ways of life and future existence weighs heavily on all minds. Pondering the need for space governance does not take away from our ongoing concerns on the planet's surface. In fact, it brings these issues to light because we cannot know where we are going until we know where we are. Both where we are and what awaits us may be causing strife in the hearts of those who seek to bring balance and justice to all our endeavors. Regarding space diplomacy, we are being offered a chance to reinvent how we define aspects of life critical to our ongoing existence. These aspects include what it means to be humanitarian, to work together for a common cause, to include diverse perspectives and ultimately create systems that benefit all, not only a few. Space Diplomacy can be our planetary legacy. In this case, space diplomacy is more than science fiction or the next big power grab. It is human restoration through collaboration. It is a way forward, together.

Acknowledgements

My thanks to Professor Dan Preston for mentoring me throughout my international affairs studies, to Dr. Lisa-Marie Napoli for allowing me to be an apprentice to her pivotal work on civic dialogue, to Dr. Stephen Macekura for challenging me to make use of my diplomatic skills with a variety of my multigenerational peers who may one day be stakeholders in space diplomacy, to Dr. Neil deGrasse Tyson for his gracious advice on how to practically identify conflict resolution efforts in space, and to everyone who has poured their effort into space diplomacy efforts.

References

Ackerly, B.A (2008) *Universal human rights in a world of difference*. Cambridge, UK: Cambridge University.

Aganaba, Timiebe. (2024, January 24). Only Effective Space Governance Can Prevent Future Conflict. Center for International Governance Innovation. https://www.cigionline.org/articles/only-effective-space-governance-can-prevent-future-conflict/.

Artificial Intelligence and International Politics. (1991): 9-31. Routledge. https://doi.org/10.4324/9780429033575

ONLY FOR REVIEW

A Brief History of the FAA. Federal Aviation Administration. (accessed April 4, 2024). https://www.faa.gov/about/history/brief_history#:~:text=At%20their%20urging%2C%20the%20Air,maintaining%20aids%20to%20air%20navigation.

Boveja, R. (2019). Multicultural health diplomacy: A proposed culturally competency diplomacy model for health professionals. *Athens Journal of Health and Medical Sciences*. 6(1). 1-18. https://www.athensjournals.gr/health/2019-6-1-1-Boveja.pdf

Broward, C (1957) National Sovereignty at High Altitudes. *Journal of Air Law and Commerce* 24(4): 384.

Convention of International Civil Aviation – Doc 7300. International Civil Aviation Organization. "Retrieved [April 4, 2024] from [https://www.icao.int/publications/pages/doc7300.aspx]".

Ernst, E (2022) The AI Trilemma: Saving the planet without ruining our jobs. *Frontiers in Artificial Intelligence: AI in Business.* 5:1-20. https://doi.org/10.3389/frai.2022.886561.

Hestor, Clinton M (1938) The Civil Aeronautics Act of 1938. *Journal of Air Law and Commerce.* 9(3): 451.

Howell, E. (2022, February 17). What is space? Space.com. https://www.space.com/24870-what- is-space.html.

Jain, Robert. "The European Union's AI Act: What You Need to Know". Holland & Knight. "Retrieved [March 15, 2024] from https://www.hklaw.com/en/insights/publications/2024/03/the-[european-unions-ai-act-what-you-need-to-know]".

Kaku, M. (2018). *The future of humanity: Terraforming Mars, interstellar travel, immortality, and our destiny beyond earth.* Doubleday.

Kauffman, B. United States Senate. Landmark Legislation: National Aeronautics Space Act of 1958. Senate.gov. 'Retrieved [April 4, 2024] from [https://www.senate.gov/general/Features/SpaceLanding_Article_display.htm#:~:text=The%20next%20year%2C%20Congress%20passed,to%20help%20coordinate%20NASA's%20mission]".

Mission. SpaceX. Spacx.com. "Retrieved [May 7, 2024] from [https://www.spacex.com/mission/]".

Note on the Origin of the Word International (1978) *Review of International Studies.* (4)3. (pp. 226 – 232). DOI: https://doi.org/10.1017/S0260210500114585

Schrodt, P. A. (1991). Artificial intelligence and international relations: An Overview. In: Mission. SpaceX. Spacx.com. "Retrieved [May 7, 2024] from [https://www.spacex.com/mission/]".

National Space Council. The White House. "Retrieved [May 7, 2024] from [https://www.whitehouse.gov/spacecouncil/]".

Our Forces. United States Department of Defense. Defense.gov. "Retrieved [April 4, 2024] from [https://www.defense.gov/about/our-forces/#:~:text=The%20Air%20Force%20provides%20a,in%20the%20world%20within%20hours.&text=The%20Space%20Force%20organizes%2C%20trains,capabilities%20to%20the%20joint%20force]".

Silbert, Jason. (2021, May 12). Drawing inspiration from Star Trek for space diplomacy. AdvantageNews.com. https://www.advantagenews.com/columnists/letters_to_editor/drawing-inspiration-from-star-trek-for-space-diplomacy/article_937b18e4-b358-11eb-9891-df301e2d2e3a.html

The Outer Space treaty at a Glance. Arms Control Association. "Retrieved [April 4, 2024]. from [https://www.armscontrol.org/factsheets/outer-space-treaty-glance#:~:text=The%201967%20Outer%20Space%20Treaty,treaty%20entered%20into%20force%20Oct]".

OWL FOR REVIEW

The Paris Convention of 1910: the path to internationalism. The Postal History of ICAO. International Civil Aviation Organization. "Retrieved [April 4, 2024], from [https://applications.icao.int/postalhistory/1910_the_paris_convention.htm]".

The 1919 Paris Convention: The starting point for the regulation of air travel. The Postal History of ICAO. International Civil Aviation Organization. "Retrieved [April 4, 2024] from [https://applications.icao.int/postalhistory/1919_the_paris_convention.htm#:~:text=This%20Paris%20Convention%20constitutes%20the,overlying%20its%20territories%20and%20waters]".

The University of Oslo. The Faculty of Law. Air Transport. Convention on International Civil Aviation. "Retrieved [April 4, 2024] from [https://www.jus.uio.no/english/services/library/treaties/07/7-01/international-civil-aviation.html]".

Tyson, N. deGrasse. (2022). *Starry Messenger: Cosmic Perspectives on Civilization*. Henry Holy and Company.

United Nations Office for Outer Space Affairs. Committee on the Peaceful Uses of Outer Space.

United Nations Office for Outer Space Affairs. "Retrieved [April 4, 2024)] from [https://www.unoosa.org/oosa/en/ourwork/copuos/index.html]".

United Nations Office for Outer Space Affairs. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. United Nations Office for Outer Space Affairs. "Retrieved [April 4, 2024] from [https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introouterspacetreaty.html]".

United States Space Force. "Retrieved [April 4, 2024] from [https://www.spaceforce.mil]".

Viterale, F.D.C (2026) Space Diplomacy and International Collaboration. In: Lüdert, J., Wählisch, M. (eds) *The Palgrave Handbook of Science Diplomacy* (pp. 359-378). Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-032-29473-9_26.

Von der Dunk, F.G. 2020. Structuring the Governance of Space Activities Worldwide. *Georgia Journal of International and Comparative Law.* 48(3). (pp. 645-659). https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1112&context=spacelaw

What is Humanitarian Assistance? National Museum of American Diplomacy. "Retrieved [May 7, 2024] from [https://diplomacy.state.gov/teacher-resources/what-is-humanitarian-assistance/#:~:text=Humanitarian%20–%20Promoting%20human%20welfare%2C%20well,between%20two%20major%20political%20parties]".

White House Issues Federal Agency Policy on AI Use, Oversight (2024, March 28) American Hospital Association. https://www.aha.org/news/headline/2024-03-28-white-house-issues-federal-agency-policy-ai-use-oversight.

65 Years Ago: The International Geophysical Year Begins. National Aeronautics and Space Administration. "Retrieved [April 4, 2024] from [https://www.nasa.gov/centers-and-facilities/johnson/65-years-ago-the-international-geophysical-year-begins/]".

ONLY FOR REVIEW