Breaking the geo(political) orbit:
Alternatives means of shaping law and policy in outer space

by Kuan-Wei Chen ©2016
Objectives of the 10th UN Workshop

a) To promote understanding, acceptance and implementation of the United Nations treaties and principles on outer space;

b) To address space governance and the broader perspective of space security, including on norms of behaviour and space policy development;

c) To consider space law and policy in the context of space economy, space society, space accessibility and space diplomacy;

d) To study trends and challenges to the progressive development of space law; and

e) To assess further needs for capacity-building, assistance and outreach in space law and policy.
“The space agenda is evolving and becoming more complex”
“The development of international mechanisms such as guidelines, codes and other confidence-building measures are reflective of this new environment”.
“Addressing challenges to humanity and sustainable development, protecting the space environment, and securing the long-term sustainability of outer space activities all require further attention”.
There is a need “for stronger space governance and supporting structures in the future at all levels ....”

Breaking the geo(political) orbit:
1. Global Space Governance Study
Development of law and policy up to 1990s

**National level**
- National space law
- National space policy

**Regional level**
- Asia-Pacific Regional Space Agency Forum
- AfriSpace?
- Pan-Arab Space Agency?
- South American Space Agency?

**Multilateral level**
- UN Framework
  - 5 space law treaties
  - space law principles
  - GA resolutions
  - Guidelines

**Non-UN Framework**
- “highly qualified publicists”

**Arms control and disarmament**
- Conference on Disarmament

**Top-down approach**
- Internalisation
- Localisation

**Regionalisation**
- Qualiﬁed publicists, experts and stakeholder institutions present to identify and/or clarify law

**Top-down approach**
- Top-down approach
The current applicable international space law has its origin in the Cold War politics. It was developed during the period when space explorations were carried out by only a handful of countries. So far international space law has largely been successful in maintaining law and order as well as the smooth operation of space activities, including those by private entities. ...

However, the inadequacy of international space law has started emerging, particularly with the development of new space applications, the entry of new actors into the space arena and the exponential growth in the number of space activities.

Bhupendra Jasani and Ram Jakhu, Commercialisation of Space: Opportunities and Challenges

“space agenda is evolving and becoming more complex”

Alarmist view of space being “congested, contested and competitive”?

LEGAL FRAMEWORK

stated objectives:
PEACEFUL PURPOSES
REGARD FOR INTERESTS OF ALL STATES
BENEFITS OF HUMANITY
...

...
“space agenda is evolving and becoming more complex”

TRENDS, REALITIES and CHALLENGES:

• Ever-growing reliance on outer space (“dependence”)
• Ever-increasing number of actors (“democratisation”)
• Shift away from governmental to private/commercial undertakings in outer space (“commercialisation”)
• Shift of balance of power to rising powers /economies (BRICS) (“multi-polarisation”)
• Militarisation and security concerns in outer space (“militarisation”)
• Need to address needs and interests of developing countries
• Environmental degradation of outer space
• Sustainability of human activity and presence in outer space
The development of international mechanisms such as guidelines, codes and other confidence-building measures are reflective of this new environment.

After (around) 1990s...

Multilateral level

- Space law treaties
- Space law principles
- GA resolutions
- Guidelines

Confidence-building measures such as the Hague Code of Conduct are an example of non-UN Framework measures.

Regional level

- Asia-Pacific Regional Space Agency Forum
- AfriSpace?
- Pan-Arab Space Agency?
- South American Space Agency?

National level

- National space law
- National space policy

Overlapping, disjointed and confusing...

"highly qualified publicists"
Through the lens of lawyers...

"...some of the principles and definitions inherited from the past have become too narrow, highly inadequate and thus require reformulation, or even [...] replacement by new ones adapted to new conditions"

- Manfred Lachs

Lawyers love (the idea of) the rule of (international) law:
- ... to regulate and govern the development of human activity,
- ... to ensure outer space be used for peaceful purposes in an orderly and organised way,
- ... strong believe in the ability of States to come together and work toward a common good.

- If there is no law, let’s find or create it!
- If there is law, let’s clarify, reformulate and apply it!
Need for “stronger space governance and supporting structures in the future at all levels”

TRENDS, REALITIES and CHALLENGES:

• Existing laws are outdated and not updated
• Gap ("legal lacunae") exists between regulation and nature of activities and actors existing today and that are developing
• New laws are difficult, if not impossible to adopt
• Wide range of intuitions, standards, norms and guidelines exist that are not-strictly legal
• "soft", non-binding guidelines undermine rule of law and legal certainty
• Proliferation of forums outside the traditional UN framework
• Deadlocked on vital issues that need instant clarification and dialogue to prevent misunderstanding, suspicion, and potential for conflict, particularly security and strategic issues
Breaking the geo(polynomial) orbit: What way forward?

“Global problems need global solutions that are sought and implemented through global participation”.

• Introduce initiatives that are non-State-centric and break away from geopolitical interests
• Involve a spectrum of experts and stakeholders from all disciplines and all parts of the world
• Experts and contributors participating in their personal capacities
• Appeal to common interests and united by common concerns
• Agreement through consensus

Global Space Governance Study

Manual on International Law Applicable to Military Uses of Outer Space (MILAMOS) Project
Space lies at the nexus of security, strategic stability, and scientific, as well as technological, advancement. ... The emergence of a **burgeoning private (i.e. non-governmental) space sector** and the massive **environmental repercussions of space debris** are just some of the many issues that have challenged the very foundations of the existing model of **global space governance**.

*Prof. Ram Jakhu (October 2013)*

- 120 experts appearing in their private capacities
- 22 space-faring and non-space-faring nations
- Representatives from intergovernmental institutions, from national (space) agencies, civil society, academia, governments, armed forces, the private sector and other stakeholders
prepare for and convene an international conference to deliberate and agree upon recommendations to governments and relevant international organizations aimed at the establishment of a global governance regime for peaceful and sustainable space exploration, use and exploitation for the benefit of all humankind;

global participation by all key stakeholders (i.e., state and non-state actors) including: international intergovernmental organizations; relevant regional organizations; non-governmental organizations; appropriate state ministries (departments) and space agencies; academic institutions; appropriate commercial enterprises; and concerned individuals;

Institute of Air and Space Law to take the lead in initiating, completing and broadly distributing through all forms of media, an international interdisciplinary study that examines drivers of space regulations and standards

PRELUDE to UNISPACE + 50

!!Save the date!!
Second Global Space Governance Conference will be taking place 4-6 MAY 2017 in association with UNOOSA
Definition of global governance

“Global governance is a wide term that is open to multiple elucidations and interpretations”.

In short, global space governance refers to:

“the international action or manner (process) of governing or regulating space-related affairs or activities” … “the entirety of the mechanisms and processes and [including] their formulation, compliance monitoring and enforcement”.

The concept encompasses a wide range of instruments, institutions and mechanisms discussed, formulated, and implemented at various international fora, including:

- international and/or regional treaties, agreements, and regulations;
- model national laws and regulations;
- technical standards and procedures;
- codes of conduct, “rules of the road”, and guidelines; and
- transparency and confidence building measures.

Spectrum of “binding-ness”

GLOBAL space governance

• Global... in the sense it encompasses concerns and interests of the world and humanity

• Global... also in terms of the perspective; taking a interdisciplinary and inclusive “satellite’s eye view” and analysis of issues, process, challenges and opportunities

GLOBAL SPACE GOVERNANCE

(quasi) LEGAL FRAMEWORK

stated goals:

PEACEFUL PURPOSES
BENEFIT OF HUMANITY
SUSTAINABILITY

EDUCATIONAL
(capacity-building)

POLITICAL

SECURITY and STRATEGIC

SCIENTIFIC and TECHNOLOGICAL

SOCIETAL and CULTURAL

ECONOMIC and COMMERCIAL

ENVIRONMENTAL

Range of topics covered in the GSG Study

“The great void in new paths to global governance of outer space was an interchange of knowledge, ideas, and evolving problems in space development which must come from effective communications between academia, governments, international organisations, NGOs, industry, private space sector, start-ups as well as individual scientists, engineers, space agencies, commercial space interests and entrepreneurs, and space lawyers”.

- satellite telecommunications;
- remote sensing and Earth-observation;
- satellite navigation and tracking (i.e. GNSS) space-based solar power;
- space launch systems;
- human space flight;
- space mining and utilization of space resources, cosmic hazards and planetary defense;
- global space environmental issues,
- education and capacity-building for space development;
- global space security;
- Human migration and colonisation of space;
- Sustainability of outer space etc. etc.
Goals of the GSG Study

“Many will say the goals are way too complex, lofty and ill-defined to succeed, but isn’t it at least worth a try? In light of the minimal global progress made by conventional international negotiations, it seems that now is the time to explore new mechanisms to cooperate in space.

Ram Jakhu and Joseph Pelton

1. Examine the changing global economic, political and social conditions and space infrastructure dependence; (“multi-polarisation”; “commercialisation”; “democratisation”; “militarisation”)
2. Identify and assess all known space threats and risks;
3. Examine space opportunities and the need for the sustainable and peaceful use of outer space, and the exploration and exploitation of space for the benefit of all humankind;
4. Identify safety, technical and operational gaps to be filled; and
5. Recommend appropriate space governance agreements, arrangements, regulations, standards and appropriate institutional mechanisms, innovations and practices relevant to current and emerging space activities.
Global Space Governance: a four part study

Part I
• Definition, context and importance of global space governance

Part II
• Evolution, current status and future trends of space activities
• (in)adequacy of the current governance system
• Recommendations and actions, and possible fora/forum to improve global space governance for benefit of humankind

Part III
• New and emerging challenges since the 1970s

Part IV
• Conclusions, consolidated findings and recommendations for appropriate future global space governance system
Theme 2: Legal regime of outer space and global space governance: current and future perspectives

OBJECTIVE:
“Promote the universality of the five United Nations treaties on outer space. Assess the state of affairs of those treaties and their relationship with other relevant international instruments, such as principles, resolutions and guidelines governing space activities. Analyse the effectiveness of the legal regime of outer space in the twenty-first century, with a view to identifying areas that may require additional regulation”.

… (b) Studying potential future legal and institutional initiatives intended to ensure that outer space is explored and used for peaceful purposes and that access to outer space remains open and free for the benefit of all countries, in order to ensure that international space law is a relevant part of global space governance

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TRENDS, REALITIES and CHALLENGES:

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• Gap ("legal lacunae") exists between regulation and nature of activities and actors existing today and that are developing
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• "soft", non-binding guidelines undermine rule of law and legal certainty
• Proliferation of forums outside the traditional UN framework
• Deadlocked on vital issues that need instant clarification and dialogue to prevent misunderstanding, suspicion, and potential for conflict, particularly security and strategic issues
TRENDS, REALITIES and CHALLENGES:
• Serious deadlock on the matter of military uses of outer space
• A dire need to clarify applicable rules of international law to **prevent future conflicts** in outer space and **minimise the detrimental effect conflict** will have on civilians and the world
• Various forum and means to address issue of space security and what happens in the outbreak of armed conflict:

  • PAROS resolutions since the 1980s
  • No First Placement of Weapons (2014)
  • Transparency and Confidence Building Measures / joint First and Fourth Committee Meeting in Oct 2015
  • International Code of Conduct (2014); Multilateral Negotiations in NYC (July 2015)
  • Guidelines for the Long-Term Sustainability of Outer Space (2016)
**Our Mission**

To develop, within a period of three years, a manual that objectively articulates and clarifies existing international law applicable to military uses of outer space, including the conduct of hostilities in outer space and military activities in periods of tension.

**Our Vision**

To contribute to a future where all space activities are conducted in accordance with the international rules-based global order, without disrupting, and preferably contributing to, the sustainable use of outer space for the benefit of present and future generations of all humanity.
The Law of War on Land 1880
Institute of International Law

• “does not propose an international treaty, which might perhaps be premature or at least very difficult to obtain”

• “a 'Manual' [is] suitable as the basis for national legislation in each State....”

• “stating clearly and codifying the accepted ideas of our age so far as this has appeared allowable and practicable”.

• “A positive set of rules, ... [prevents] the unchaining of passion and savage instincts ...[strengthens] the discipline ... by keeping them within the limits of respect due to the rights of humanity.”
What is a manual?

- A collectively agreed text produced by international group of experts
- Experts act in personal capacities
- Manual contains list of black-letter rules, with commentaries
- Based on *lex lata* reflected in customary international law
- Brings together applicable law on a particular topic

**MILAMOS will provide a neutral, objective and accurate statement of the applicable law**
Success of a manual

- A statement of the law as it is (lex lata)
- Identify rules that are customary
- Identify where gaps in law exist
- Rules should reflect and be supported by State practice
- Benefit from discussions with and input from States
- Provide neutral, objective and accurate statement of the applicable law
- Precise enough to avoid ambiguity, open enough to remain relevant!
Support and involvement for the Project

• Founding Institutions McGill University Centre for Research in Air and Space Law and University of Adelaide Research Unit on Military Law and Ethics. McGill University hosts its secretariat.

• Recognition and support from the Government of Canada.

• Financial support from the Erin JC Arsenault Fund at McGill University, the Social Sciences and Humanities Research Council of Canada, and ROOM, the Space Journal;

• Endorsed by the International Committee of the Red Cross (ICRC) and the Union of Concern Scientists (UCS);

• Strong interest from Chinese universities, and an Indian security research centre;

• Strong show of interest from defence forces of several countries.

• Strong interest in participation by some world’s leading technical and legal experts
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Conclusion

“…is it not true that we face here fascinating issues of law, a new world or worlds far beyond anything man has ever reached for?”

Manfred Lachs, *The International Law of Outer Space* (1964)

- Interesting and challenging times in the domain of space activities
- Law and policy needs be able to bridge gaps with reality, trends, technology and developments and properly respond to challenges and opportunities
- Traditional forum may prove to be cumbersome and longwinded to achieve agreement
- Common objectives and interests can be a basis for consensus
- Need for innovative, interdisciplinary, global approach to global issues, opportunities and challenges
- Global Space Governance Study and MILAMOS Project are prime examples of such initiatives