

Bond
Law
Clinic



BOND
UNIVERSITY

INTERNET LAW RESEARCH CLINIC

Enhancing the Efficacy of Internet Connectivity Legal Frameworks in the Asia-Pacific Region

(Grant No: F-202206-01436)

Prepared by: Eugenia Georgiades, Francina Cantatore,
Melanie Jackson, and Temitope Lawal

Final Report

January 2024

1. Executive Summary

This report provides a summary of the various research projects undertaken in furtherance of Grant – F-202206-01436: *Bond University Internet Law Research Clinic: Enhancing the Efficacy of Internet Connectivity Legal Frameworks in the Asia-Pacific Region*. It serves as an updated version of a previously submitted interim report. The projects have focused on the framework of Indonesian laws on the use of satellites, legal frameworks for satellite internet access in the Asia-Pacific region, the use and misuse of satellites in Australia, the United States (US), and the European Union (EU), and the identification of features of best practices for Internet Connectivity Legal Frameworks (ICLFs) consistent with the human right to internet access in the Asia-Pacific region.

In relation to the framework of Indonesian laws on satellite use, a **comprehensive framework and summary document** were created to guide access and use of satellites by tertiary education institutes in Indonesia. Additionally, a **general guide** for APNIC members on legal processes for satellite access was produced.

For satellite internet access in the Asia-Pacific region, a **generic checklist** was developed to assist APNIC members in navigating legal requirements, restrictions, and licensing procedures. **Individual checklists, information guides, and fact sheets** for ten Asia-Pacific countries were also produced. A **compendium of the satellite internet access guide** for all ten countries was also produced. The comparative analysis of laws on satellite use and misuse in Australia and Indonesia on the one hand, and Australia, the US, and the EU on the other hand explored preventive measures and privacy implications. The findings contributed to the publication of a research paper titled *‘Privacy in the Age of Remote Sensing During Natural Disasters in Australia and Indonesia’* with the Digital Law Journal, and several blog posts. Another research paper that examines the legal frameworks governing satellites in Australia, the EU and the US has been submitted for possible publication.

The project on the identification of features of best practices for ICLFs in the Asia-Pacific region aimed to evaluate existing frameworks and propose improvements. Research focused on Malaysia, India, and Nigeria, examining issues relating to internet censorship, and compliance with human rights laws and other relevant international standards. A 56-page report titled ***'Bridging the Digital Divide: Exploring the human right to internet access in India, Malaysia and Nigeria'*** that detailed the research undertaken on this project was produced. Resulting from this research, a research paper titled ***'Loose Lips and Internet Censorship: Freedom of Expression in India and Malaysia'*** has been accepted for publication with the San Francisco Law Review and is currently undergoing editorial review.

These findings lay the foundation for further research and development in each project area, with the aim of producing comprehensive and insightful outcomes to support the effective and responsible use of satellites for internet connectivity in the region. It also creates scope for further research in the broader technology sphere, including regulatory issues relating to use of Artificial Intelligence, Internet of Things, etc.

Note: This executive summary provides a concise overview of the outcomes of each project.

Attachments: Copies of the (i) article published in the Digital Law Journal; (ii) blogposts (published and unpublished), (iii) report detailing the findings of the research carried out in relation to ICLFs in Asia-Pacific region; (iv) compendium of Satellite Internet Access Guide for all ten Asia-Pacific countries understudied; (v) updated generic and individual checklists, fact sheets, and information guides for all ten Asia-Pacific countries.

2. Project Overview and Status Update

Project Title	Completion Status	Project Overview	Activities Carried Out So Far
Framework of Indonesian Laws on Use of Satellites	Completed	The objective was to identify relevant laws for satellite use in Indonesia, specifically for tertiary education institutes.	<ul style="list-style-type: none"> • Researched legislations related to satellite access and use in Indonesia. • Explored requirements for contracting with satellite service providers. • Examined model laws within the Asia-Pacific region. • Produced framework and summary document for the client. • Created a general guide for APNIC members on satellite access.
Legal Framework on Use of Satellite for Internet Access in the Asia-Pacific Region	Completed	This project aims to provide a framework for satellite internet access in the Asia-Pacific region.	<ul style="list-style-type: none"> • Developed a generic checklist for APNIC members on satellite internet access. • Created individual checklists for ten Asia-Pacific countries. • Created information guides for ten Asia-Pacific countries. • Created factsheets for ten Asia-Pacific countries. • Created a compendium of the satellite internet access guide for all ten Asia-Pacific countries. • Published a blogpost titled 'One Checklist at a time: Towards simplifying satellite internet access in Asia-Pacific.' • Prepared three additional blogposts (unpublished) titled: (i) Internet From Space: A Comparative Analysis of Regulatory Frameworks in Australia, Malaysia, and Vietnam; (ii) Legal Status of Satellite Internet in Three Tea-Producing Countries; and (iii) Freedom of Expression and Satellite Internet in Asia-Pacific Region?
Use and Misuse of Satellites – Comparative Analysis of Laws in Australia, USA, and EU	Completed	The project focuses on analysing the legal frameworks in Australia, the US, and the EU regarding satellite use and misuse.	<ul style="list-style-type: none"> • Conducted comparative analysis of national space legislation in Australia, the US, and the EU. • Examined licensing requirements, penalties, and privacy implications. • Prepared two blog posts (unpublished): (i) Privacy Issues and Remote Sensing: Lessons from the European Union's General Data Protection Regulation; and (ii) Comparative satellite misuse in Australia and the US. • Submitted a research paper to the Annals Journal of Air and Space Law (McGill) for publication. The paper examines the legal frameworks governing satellites in Australia, the European Union, and the United States and discusses how each jurisdiction authorises satellite use and regulates issues like liability, privacy, and national security.
Use and Misuse of Satellites during Natural Disasters – Comparative Analysis of Laws in Australia and Indonesia	Completed	The project involves a comparative analysis of laws in Australia and Indonesia to address satellite use and misuse during natural disasters.	<ul style="list-style-type: none"> • Conducted comparative law research on lawful satellite use in Australia and Indonesia. • Explored various types of satellite misuses and relevant legislative frameworks. • Prepared a blog post (unpublished) titled: 'Threats to Satellites: Growing Concerns for the Indo-Pacific'. • Academic article titled 'Privacy in the Age of Remote Sensing during Natural Disasters in Australia and Indonesia' published in the Digital Law Journal.

Identification of features of a best practice for Internet Connectivity Legal Framework (ICLF) for the Asia-Pacific Region consistent with the Human Right to Internet Access	Completed	The project aims to evaluate Internet Connectivity Legal Frameworks (ICLFs) in the Asia-Pacific region and propose improvements aligned with human rights standards.	<ul style="list-style-type: none"> • Conducted research into the legal frameworks for internet connectivity in Malaysia, India, and Nigeria. • Assessed compliance with human rights laws and international standards. • Examined issues related to internet access during natural disasters. • Investigated internet censorship in Malaysia, India, and Nigeria. • Drafted a research paper titled <i>'Loose Lips and Internet Censorship: Freedom of Expression in India and Malaysia'</i> which has been accepted for publication by the San Francisco Law Review and is undergoing editorial review. • Prepared a 56-page report detailing the findings of the research carried out on this project.
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

3. PROJECT REPORT

a) *Framework of Indonesian Laws on Use of Satellites*

This project involved conducting research to identify legislations in Indonesia that are relevant to access and use of satellites, particularly for tertiary education institutes. It also explored requirements under Indonesian law or policy for tertiary education institutes seeking to contract with satellite service providers. Furthermore, the research investigated whether model laws relevant to satellite access and use exist within the Asia-Pacific region.

The key deliverables included the production of a framework and summary document to guide the client on legal processes for accessing and using satellites in Indonesia, as well as a general guide for APNIC's members on necessary steps and considerations in the legal process of obtaining satellite access.

This project was completed in September 2022. **Copies of the outputs produced were forwarded as part of an earlier interim report.**

b) *Legal Framework on Use of Satellite for Internet Access in the Asia-Pacific Region*

The objective of this project was to provide APNIC and its members with a comprehensive framework for using satellites to access the internet in the Asia-Pacific Region. The specific focus was on countries such as Australia, Japan, Bangladesh, Malaysia, Vietnam, French Polynesia, Macao, Indonesia, Hong Kong, and Sri Lanka.

The project aimed to guide APNIC members by outlining the existing legal and licensing processes relevant to satellite internet access in these selected countries.

The outputs previously produced included a generic checklist that serves as a practical roadmap, covering various aspects of satellite internet access such as laws, restrictions, technical requirements, and licensing procedures. Additionally, individual checklists were created for each of the ten Asia-Pacific countries, providing a snapshot of the relevant laws and licensing processes for internet access and satellite usage. Also, individual factsheets and information guides for all ten countries were prepared.

Copies were forwarded as part of an earlier interim report.

Further outputs, including (i) one published blog post; (ii) three additional blog posts (unpublished); and (iii) a compendium of the satellite internet access guide for all ten countries, have been developed. These materials aim to provide concise and simplified information about the legal and licensing requirements for accessing satellite internet in the selected countries. **Copies of the further outputs produced are attached to this report.**

c) *Use and Misuse of Satellites – Comparative Analysis of Laws in Australia, United States, and European Union*

This project focused on conducting a comprehensive analysis of the use and misuse of satellites in Australia, United States, and European Union, specifically examining potential interference, damage, or destruction of satellite systems and their implications on civilian applications. It highlighted the critical need for preventive measures by States and international bodies, including the United Nations, to mitigate the adverse effects of satellite misuse on essential services such as the internet and communications.

Based on the research conducted, one critical misuse of Low Earth Orbit (LEO) satellites for internet connectivity identified is their capacity to collect, store, and monitor data on earth and in space. This raises concerns about data privacy, as unauthorised surveillance and the collection of sensitive personal information become potential risks. The regulation of satellite technology and privacy becomes challenging

due to different data use policies among LEO satellite providers, which may not align with specific countries' privacy laws and regulations. Therefore, legal regulations at the national and international levels are necessary to address these gaps in data protection. Control and monitoring issues also need to be addressed to safeguard Asia Pacific communities and are crucial considerations for APNIC members involved with or contemplating the use of LEO satellite technology.

With the growing number of satellites in orbit, the potential for unauthorised surveillance and the collection of sensitive personal information increases. For instance, LEO satellites equipped with high-resolution cameras can capture ground-level images of individuals, vehicles, and buildings, which can be misused for unauthorised surveillance or the collection of sensitive personal information. In addition, using satellites for high-speed internet and data communication poses a risk of intercepting and collecting personal data transmitted over the internet.

The project also identified challenges faced by governments and organisations that require LEO satellite technology for internet connectivity but are restricted from using it due to its potential military use, reserved solely for defence purposes. Upon examining two potential LEO satellite providers, it became evident that each provider imposes its own terms of use on the countries utilising their services. These licensing agreements have significant implications for Asia Pacific countries and their governments in protecting their citizens' privacy from misuse arising from data collection and monitoring by LEO satellites. Non-compliance of these licensing agreements with the legal frameworks of the countries raises data privacy concerns among the public and government agencies.

The research culminated in the preparation of the following outputs: (i) two blog posts (unpublished); and (ii) submission of a research paper to the *Annals Journal of Air and Space Law* (McGill) for possible publication. The paper examines the legal frameworks governing satellites in Australia, the European Union, and the United States and discusses how each jurisdiction authorises satellite use and regulates issues like liability, privacy, and national security. **Copies of the blog posts are attached to this report.**

d) *Use and Misuse of Satellites during Natural Disasters – Comparative Analysis of Laws in Australia and Indonesia*

This project involved a comparative law research study that examined the lawful purposes for which satellites can be used in Indonesia and Australia, with a specific focus on the legislative frameworks under international, Indonesian, and Australian law. The research explored various types of satellite misuse, such as cyber-terrorism and privacy breaches, emphasising the regulations and preventive measures established to regulate and mitigate such misuse. The project aims to develop recommendations for legislative improvements in Indonesia and Australia.

A research paper titled “*Privacy in the Age of Remote Sensing: Analysing the Legal Frameworks in Australia and Indonesia in response to Satellite Misuse during Natural Disasters*” was published in the *Digital Law Journal*. The article delved into a comparative analysis of the legal frameworks in Australia and Indonesia regarding the use of satellites for remote sensing during natural disasters. The research identifies the lack of specific rules and binding international instruments addressing privacy breaches caused by satellite misuse, recommending that both countries enhance their legal frameworks to address potential privacy concerns associated with advancing remote sensing capabilities, including provisions for respecting privacy and ensuring adequate liability coverage.

In addition, an unpublished blog post was as produced as part of this project. **Copies of the published journal article and blog post is attached to this report.**

e) *Identification of features of a best practice for Internet Connectivity Legal Framework (ICLF) for the Asia-Pacific Region consistent with the Human Right to Internet Access*

The objective of this project was to examine the Internet Connectivity Legal Frameworks (ICLFs) of ten Asia-Pacific countries and evaluate their consistency with the human right to internet access. The project aimed to propose strategies for improving existing ICLFs and develop a proposed ICLF that aligns with human rights law and facilitates the effective use of satellites in the Asia-Pacific region.

Research was conducted to identify the legal framework for internet connectivity in Malaysia, India, and Nigeria, with a focus on compliance with the UN charter for human rights and other relevant international laws. The research covered various aspects, including access to the internet during natural disasters and internet censorship in Malaysia, India, and Nigeria.

With regard to Malaysia, India and Nigeria, the research focused on the regulations and legislation of each country as they relate to internet control measures, any recent amendments to these regulations, and any plans to restrict or expand internet access. The study also explored the licensing requirements for satellite use in each country, potential restrictions on institutions accessing satellites, and the local authorities involved in granting satellite access.

The project produced a range of outputs, including (i) a research paper titled '*Loose Lips and Internet Censorship: Freedom of Expression in India and Malaysia*' which has been accepted for publication in the San Francisco Law Review; and (ii) a 56-page report titled '*Bridging the Digital Divide: Exploring the human right to internet access in India, Malaysia and Nigeria*' that detailed the research undertaken on this project was produced. **A copy of the report is attached.**

f) *Further research areas*

Based on the research conducted and the outputs produced thus far, there is potential to explore additional research areas. One area is the collection and monitoring of earth and space data, as well as LEO-IoT communications. Furthermore, there is scope for research on permissive radio spectrum use and how it enables the development of Community Access Networks.

Another research avenue worth investigating is the issue of liability for space debris and whether environmental liability regulations could apply. In this regard, a research paper is currently being conceptualised.

4. PROJECT TEAM

Chief Investigator (Project Leader)	Eugenia Georgiades
Co-Investigators	Nick James
	Francina Cantatore
ILRC Coordinators	Eugenia Georgiades Melanie Jackson
ILRC Administrative/Research Assistant	Temitope Lawal
ILRC Participants	<u>Semester 221</u> Rawan el-Maadawy Sehajpaul Thind Thomas Ryan
	<u>Semester 222</u> Jingyi (Anna) Xiao Kennedy Bahm Marcus Ware Sanjot Kaur Singh Sehajpaul Thind Siena Chandler Siqing (Veronika) Zheng
	<u>Semester 223</u> Jean-Christophe Roberge Olivia Wilson Ava Pearson Samuel Leclerc Siena Chandler
	<u>Semester 231</u> Anis Rassam Emily Edwards Jean-Christophe Roberge Mary Bisada Samuel Leclerc
	<u>Semester 232</u> Gabiella Rivers Harinder Sidhu

	<u>Semester 233</u> Madeleine McClintock
Research Assistants	Siena Chandler
	Jean-Christophe Roberge
	Hoda Asgarian
	Mohammad Matin Pedram
	Samuel Leclerc
	Kuan-Wei (David) Chen
	Joshua Cooley