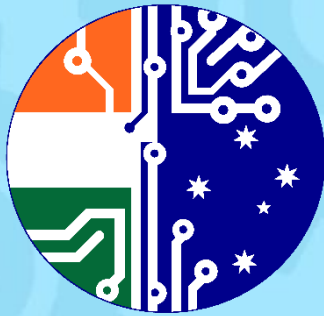




Australia
India
Joint
Technology
Impact
Assessment
Project

Professional Development Syllabus: Technology Diplomacy

2025

Specialists from:

*Blended Learning International
RMIT University
Australian National University
InKlude Labs
Arizona State University
Social Cyber Institute
Southern Cross University*

*This project is funded by the Australia India
Cyber and Critical Technologies Partnership*

This Project

On 5 November 2024, Australia's Foreign Minister Senator Penny Wong announced in a joint press statement with the Indian Minister for External Affairs S Jaishankar that the Australian National University (ANU) had been awarded a grant to lead a project under the Australia India Cyber and Critical Technologies Partnership (AICCTP). Co-leader of the grant is InKlude Labs in Bengaluru. Researchers involved in the work also come from the Takshashila Institution, Social Cyber Institute, Arizona State University, Southern Cross University, Blended Learning International and RMIT University.

This project promotes rigorous ethical approaches to technology assessments of critical emerging technologies that impact peace and stability. It seeks to strengthen consensus among key stakeholders in Australia and India regarding the importance of a process for technology assessments that can be undertaken jointly with each other. Such activity would represent an important diplomatic innovation in bilateral relations for addressing the challenges posed by rapid technological advances and the evolving geopolitical landscape. The project aims to create a self-organising community of practice (CoP) inclusive of both countries, promoting its sustainability after the project's conclusion and potentially extending its influence on a wider multilateral scale.

To support these goals, the project will create an open-access curriculum for the professional education of government officials and stakeholders responsible for assessing critical and emerging technologies. Delivered over a year, the project is led by a multi-disciplinary team of senior researchers and professional educators from Australia and India who have expertise in technology, industry, economics, geopolitics, and public policy. This initiative is funded by the Australian Department of Foreign Affairs and Trade (DFAT) as part of the Australia India Cyber and Critical Technologies Partnership (AICCTP). For more information, videos and written product, see <https://www.socialcyber.co/australia-india-tech-assessments>.

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Contents

Overview	1
Learning Objectives	1
Core Units	2
Learning Methods and Tools.....	2
Essential References	2
Useful Additional References	2
<i>Unit 1: TIA at the national level in principle and practice.....</i>	<i>3</i>
<i>Unit 2: The influence of TIA at the national level</i>	<i>6</i>
<i>Unit 3: TIA for peace and stability at the international level</i>	<i>8</i>
<i>Unit 4: The influence of TIA for peace and stability at the international level.....</i>	<i>10</i>
<i>Unit 5: The future potential of TIAs for the diplomacy of peace and stability.....</i>	<i>12</i>
<i>Unit 6: Critiques of global settings for TIA affecting peace and stability.....</i>	<i>14</i>
<i>Unit 7: International regulation and standards as tools for peace and stability.....</i>	<i>16</i>
<i>Unit 8: Assessing the assessors: A capstone exercise.....</i>	<i>18</i>

Overview

The syllabus has been developed under a grant from the Australia India Cyber and Critical Technologies Partnership. It is based on material collected or created over one year by a multinational team of eight researchers through public webinars, private workshops, stakeholder interviews and substantial research papers. That work demonstrated important gaps in policy and practice for technology impact assessment (TIA) in support of peace and stability in both Australia and India. It also highlighted the potential value of a multilateral program across the Indo-Pacific region to involve other countries in establishing communities of practice in this policy discipline. This course is designed as one instrument to support such an effort.

The syllabus takes a multi-disciplinary public policy approach, integrating ethical perspectives, the economics and politics of technology development, and global governance considerations. Strategic foresight is a central element of TIA.

There are different approaches that can be taken toward the identification of technologies that may affect peace and stability. On the one hand, the idea of peace seems straight-forward and would be taken to mean technologies which may influence a state to undertake military aggression or even start a war or otherwise undermine strategic balance. On the other hand, the idea of stability is more fungible or less direct than the idea of peace. The concept of stability embraces a wide range of social, political, economic, legal and ethical considerations of technological impacts that define prosperity and order.

This professional development program equips policymakers, analysts, and strategic advisors with knowledge and critical skills to manage technology diplomacy and national technology policy in support of peace and stability, including support for developmental pathways underpinning stability. The focal point of the syllabus is the practice of impact assessment for critical and emerging technologies affecting peace and stability. The syllabus relies on a rich history of case studies of technology impact assessment (TIA).

No country has the capacities by itself to analyse the future impacts on peace and stability of the wave of advanced technologies inundating modern society. The program is oriented therefore to international relations – the diplomacy of TIA in support of peace and stability.

Learning Objectives

1. Explain the history, purpose, and application of TIA in policy contexts at the national level
2. Understand the influence or effects of TIA at the national level
3. Explain the history, purpose, and application of TIA in policy contexts at the international level as applied in the diplomacy for peace and stability
4. Assess structural influences at the international level (such as geopolitics, relative technological power, economic factors, and workforce mobility) on the design and implementation of TIAs for peace and stability
5. Analyse the potential of TIAs for the diplomacy of peace and stability.

The lead authors of this syllabus were Adam P. Henry and Lisa Materano, with contributions or review by Greg Austin, Karthik Bappanad, Katina Michael, Bharath Reddy, Brendan Walker-Munro, and Glenn Withers. Inquiries can be made to Lisa Materano, the CEO of Blended Learning International and Director of the Social Cyber and Tech Academy (lisa.materano@socialcyber.co).

Core Units

The syllabus is built around eight core units, mapped against the learning objectives (LO):

1. TIA at the National Level in Principle and Practice (LO#1)
2. The Influence of TIA at the National Level (LO#2)
3. TIA for Peace and Stability at the International Level (LO#3)
4. The Influence of TIA for peace and stability at the International Level (LO#4)
5. The future potential of TIAs for the diplomacy of peace and stability (LO#5)
6. Critiques of global settings for TIA affecting peace and stability (LO#4, LO#5)
7. International technology governance: regulation and standards as tools for peace and stability (LO#5)
8. Assessing the assessors: a capstone exercise (LO#5)

Learning Methods and Tools

Delivery should include a variety of instruction methods and tools, emphasising interactive learning and seminar-style approaches. Tools like quizzes and polls can be used to good effect, especially to engage participant interest in advance of particular sessions or to enable reflection on key take-aways.

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Unit 1: TIA at the national level in principle and practice

- **Concentrates on Learning Objective #1:**

Explain the history, purpose, and application of TIA in policy contexts at the national level

Overview

Participants will learn how policy, regulation, and institutional design influence the uptake of TIA in different national contexts. The settings will be in part issue-related — from nuclear safety to surveillance governance for privacy. They will also address different national political approaches to TIA, for example, in the US and various European countries, as well as Australia and India. The session will introduce the qualities that characterise different levels of TIA – from basic, through intermediate to advanced.

Discussion Topics

- A Brief History of TIA (democratic consultation and accountability are key principles of a disciplined approach to TIA)
- Assess the role of capacity-building (skills, institutions, legal frameworks) in supporting TIAs
- How can states strengthen their capacity for TIAs?
- Institutional adoption: how national governments integrate TIA into policy cycles
- Case studies: nuclear safeguards, ICT for security, and artificial intelligence
- Methodologies for TIA: basic, intermediate and advanced

Audiovisual Assets

- Technology Impact Assessment & Governing Emerging Technologies – Katina Michael & Roger Clarke (YouTube)
- **Human rights and AI - introducing a new impact assessment tool**

Essential References

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Unit 2: The influence of TIA at the national level

- **Concentrates on Learning Objective #2:**
Understand the influence or effects of TIA at the national level

Overview

This unit delves more deeply into the actual influence of TIA, with an emphasis on its dualistic quality: enabling beneficial innovation while also providing the evidence base for restrictions or prohibitions on harmful technologies. Through case studies such as on data privacy and cyber surveillance tools, participants will explore how often and why impact assessments can contribute to decisions that attempt balance ethical values, peace, and stability. The session highlights tensions between national interests, industry innovation, and human rights advocacy.

Discussion Topics

- How TIAs frame technologies as beneficial, risky, or unacceptable.
- Ethical thresholds: when “benefits” are outweighed by humanitarian/security concerns.
- Dual-use dilemmas: facial recognition, spyware (Pegasus), and AI in warfare.
- The “precautionary principle” in TIA and its influence on bans/moratoriums
- Social media bans for young people

Audiovisual Assets

[The Impact of Technology | FRONTLINE](#)
[Pegasus Spyware: The Surveillance Nightmare](#)

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Unit 3: TIA for peace and stability at the international level

Concentrates on Learning Objective #3

Explain the history, purpose, and application of TIA in policy contexts at the international level as applied in the diplomacy for peace and stability

Overview

Technology impact assessment (TIA) has been an essential diplomatic tool supporting international peace and stability since the late 1960s and 1970s, mostly through arms control treaties and international organisations specifically requiring such activities. Since that time, the number of cross-border or joint TIAs in various fields has markedly increased. International standard-setting based on shared and debated technology assessments affecting security has been undertaken in a variety of multilateral regimes, such as the International Telecommunication Union (ITU) and the International Civil Aviation Organisation (ICAO). In the private sector, the Institute of Electrical and Electronics Engineers (IEEE) had become one of the most influential international actors in building bridges across geopolitical divides in global TIA practices. By 2025, joint TIAs for peace and stability of one kind or another were being supported by diverse and numerous communities of practice. Participants will explore how TIA frameworks are weaponised in tech rivalry, embedded in national security strategies, and contested in international rule-making forums (WTO, UN, OECD, G20). As importantly, they will explore how TIA framework support development and prosperity goals that are the underpinning of peace and stability.

Discussion Topics

- Competing geopolitical visions for TIA: precaution vs innovation-first vs state sovereignty.
- TIAs in strategic competition: AI, quantum, 5G, semiconductors, surveillance.
- How geopolitical narratives frame technologies as either stabilising or destabilising.
- The role of alliances (AUKUS, QUAD, NATO, BRICS) in shaping TIA adoption
- Case study: EU's TIA-based AI Act as "regulatory diplomacy".

Audiovisual Assets

[Tech Cold War: The Geopolitics of Technology](#)

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Unit 4: The influence of TIA for peace and stability at the international level

- **Concentrates on Learning Objective #4**

Assess structural influences at the international level (such as geopolitics, relative technological power, economic factors, and workforce mobility) on the design and implementation of TIAs for peace and stability

Overview

This unit examines the ways in which international TIA efforts can buttress peace and stability but also how they can often fail to achieve such goals.

Despite frameworks from the UN, OECD, EU, and World Bank, gaps remain in implementation, accountability, and representation. Participants will interrogate critiques such as:

- Global North dominance in setting standards that marginalise Global South needs
- Over-reliance on voluntary guidelines with weak enforcement
- Fragmentation across regions and sectors (AI, biotech, cyber, space)
- Industry capture of TIA processes, where corporations influence rules to minimise restrictions
- Peace and stability blind spots, where TIAs focus on economic growth but ignore conflict drivers or humanitarian outcomes

Case studies will highlight the EU AI Act vs African contexts, UN cyber norms vs national sovereignty, and OECD digital policy vs non-member states.

Discussion Topics

- Whose voices shape global TIAs?
- Weaknesses in enforcement and accountability mechanisms
- Power asymmetries in TIA design (e.g. WTO tech-related trade rules)
- Critiques from feminist, decolonial, and Global South perspectives
- Case study: Pegasus spyware and the failure of global TIA regimes to prevent individual harms

Audiovisual Assets

[Technology Impact Assessment for Peace & Stability \(Dr Jürgen Altmann on Military Tech Assessment\)](#)

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Unit 5: The future potential of TIAs for the diplomacy of peace and stability

- **Concentrates on Learning Objective #5**
Analyse the diplomatic potential of TIAs for the diplomacy for peace and stability

Overview

This unit moves from divergence and critique to convergences, highlighting where global frameworks, despite their differences, have untapped potential to overlap in meaningful ways. Key convergences include:

- Business and economic imperatives
- Human rights-based approaches in EU, UN, OECD AI principles
- Precautionary and risk-based models across EU AI Act, ISO standards, and national governance
- Transparency and accountability mechanisms, increasingly embedded in digital governance
- Alignment on peace and security considerations, particularly in dual-use technologies like AI, cyber, and biotechnology.

Case studies will include the EU AI Act aligning with OECD AI principles and the UN's Global Digital Compact drawing from national and regional TIAs.

Discussion Topics

- Identify areas of common ground across different TIA frameworks (EU, OECD, UN, national strategies)
- Understand how shared principles (human rights, risk-based approaches, precaution, transparency) drive convergence
- Explore the role of multi-stakeholder collaboration (governments, industry, civil society, academia)
- how can convergence strengthen peace and stability outcomes?

Audiovisual Assets

[Understanding the Convergence of Technologies and National Security Implications](#)

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Unit 6: Critiques of global settings for TIA affecting peace and stability

- **Concentrates** on LO#4 and LO#5
Assess structural influences at the international level (such as geopolitics, relative technological power, economic factors, and workforce mobility) on the design and implementation of TIAs for peace and stability
Analyse the diplomatic potential of TIAs for the diplomacy for peace and stability.

Overview

Analyse how different actors shape technology governance (states, multilateral bodies, corporations, civil society). Understand the political economy of TIA frameworks, including who benefits and who is excluded. Explore tensions between national sovereignty, global governance, and private-sector dominance. Critically assess how rule-setting impacts peace, conflict prevention, and stability. This unit focuses on strategic technology governance: the mechanisms and actors that set, enforce, and contest the rules governing technology impact assessments.

Discussion Topics

- Who has the power to define technology rules?
- How do corporations compete with states in setting standards?
- Does global technology governance favour peace and stability, or entrench geopolitical competition?
- What happens when rules clash (e.g., GDPR vs U.S. data regulation, China vs OECD standards)?

Audiovisual Assets

[The Innovation Imperative: Technology and the Future of International Cooperation](#)

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Unit 7: International regulation and standards as tools for peace and stability

- **Concentrates** on LO#5:
Analyse the diplomatic potential of TIAs for the diplomacy for peace and stability.

Overview

This unit investigates how TIA is a foundation for the work of international technical standards bodies—such as 3GPP for telecommunications, ICAO for aviation, and the IAEA for nuclear energy. It discusses how this regulation of critical technologies contributes to peace and stability. Case studies feature examples where standardisation has facilitated arms control (IAEA safeguards), global communications security (3GPP encryption), and aviation trust (ICAO protocols).

Discussion Topics

- The challenges of aligning national interests with international technical agreements, particularly in areas such as cybersecurity, AI governance, and supply chain integrity
- The critical importance of transparency, inclusivity, and the participation of both states and industry in standards-setting processes
- The growing influence of geopolitical competition in technical standardisation and its impact on TIA for peace and stability.

Audiovisual Assets

[Global Technology Trends: The Nexus Between Technology, Geopolitics and National Security](#)

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Unit 8: Assessing the assessors: A Capstone Exercise

- **Concentrates** on LO#5:

Analyse the diplomatic potential of TIAs for the diplomacy for peace and stability.

Overview

This unit serves as the capstone of the course. It consolidates insights from Units 1–7 and looks ahead at where TIA practice is going.

The unit requires participants to design elements of a mapping tool for a selected class of technologies, such as AI, to document how well a particular government or diplomatic partnership has undertaken TIA to support peace and stability. The performance criteria to be mapped are the nine laid out in the research papers of the AICCTP project:

- An appropriate balance in focus between a very broad class of technology and specific sub-fields where the impacts are discrete from other sub-fields (such as facial recognition tools within the broad class of AI technologies)
- Depth and granularity of consultation with specialists
- Breadth and depth of stakeholder consultation, especially community interests
- Public transparency
- Recognition of the principal place of the non-technical social, political, legal and economic impacts of technology use
- Comprehensiveness of analysis, including international and alternative views
- Timeliness
- High relevance to policy for peace and stability
- A clear ethical framework.

TIA can be classified under three levels (basic, intermediate, advanced). “Basic” applies to TIA where only a few of the nine criteria are addressed; “intermediate” applies where a reasonable number has been addressed; and “advanced” applies where all or almost all have been addressed. Course participants should feel free to propose an alternate set of categories to describe depth and breadth of TIAs.

Audiovisual Assets

[Whose Digital Future? Engaging Citizens In Ai Development And Impact Assessment](#)
[Behind the Scenes of AI Governance: AI Impact Assessments \(2024\)](#)

