

Managing HDR risk in a changing geopolitical climate

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Overview

1. Geopolitical environment
2. International risk in HDR
3. Risk mitigation
4. Group activities and case studies

Global challenges

- Poverty
- Refugee crisis
- Climate change
- Sustainability
- Food insecurity
- Scarcity of resources
- Economic uncertainty
- Growth coupled with emissions and waste
- Inequality



Geopolitical environment

Global cooperation to geo-strategic competition

- Disruption to international order
 - Global conflict and changing geographic influence
 - Russia and Ukraine
 - Middle East
 - South China Sea
- Rise in nationalism – democratic to authoritarian government



Geopolitical environment

Global cooperation to geo-strategic competition

- Shift in security, economic and political alliances
- Tariffs
- Technological advancements
 - AI, semiconductors

“Our challenge is to ensure that globalization becomes a positive force for all the world’s people, instead of leaving billions of them behind in squalor.” — Former UN secretary-general Kofi Annan



Trust in science

CNN

Trump shares vaccine skepticism on call with RFK Jr. in since-deleted video

OPINION

THE WEEKEND AUSTRALIAN • 16h • OPINION

Australian Research Council reveals taxpayer funding of woke research

Academics studying public toilets, grief in ancient Greece and gender cohesion in universities have won a slice of \$376m in taxpayer funding for priority research.



THE CONVERSATION

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Why some people don't trust science – and how to change their minds

Published: December 29, 2023 10.42pm AEDT

Exclusive National Research

This was published 3 years ago

Suspected fraud cases prompt calls for research integrity watchdog



Harriet Alexander

December 29, 2021 – 5.00am

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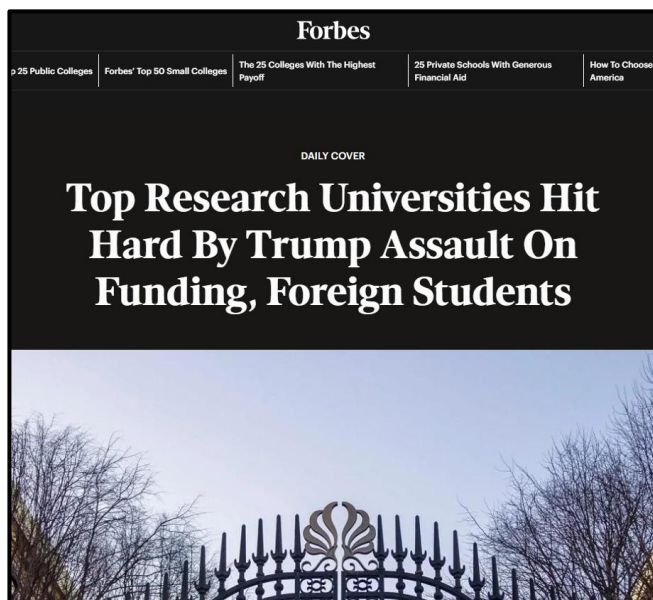
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Public trust in universities

— Opinion

How do our universities get their social licence back?

There are four issues that universities need to address if they are to revive their troubled reputations in Australian society.



THE WEEKEND AUSTRALIAN • 11d

Universities will be called to account on governance issues

Universities will be pulled into line with listed companies and forced to publish board decisions, detail executive salaries ...

International collaboration

- Research engagement and impact
- Knowledge exchange
- Research funding and growth
- Student exchange – graduate outcomes
- Soft diplomacy



Large Hadron Collider, CERN

International Risk in Research



the teaching life cycle. For example, foreign students in a course teaching critical technologies could graduate with that knowledge without ever having met their lecturers in person or set foot in Australia. The nature of those risks is heightened in relation to research, particularly research conducted by students enrolled in Doctor of Philosophy programs (whether conferring a PhD, doctorate, cotutelle or the like) or by university-employed academics collaborating with foreign entities. In those cases, such research is often subject to limited scrutiny (except in the case of experiments involving human research or pathogens, which are largely regulated on ethical and not security grounds).⁸

International and domestic foreign policies can also affect the level of risk. International treaties and agreements such as AUKUS will require significant university investment. For example, not only will some Australian universities be required

Recommendations

- The Australian Government should consider commissioning research into the ownership of IP rights in research conducted by higher degree by research students during a master's degree or PhD.
- Universities and research organisations, through peak bodies such as the Group of Eight, Innovative Research Universities or the Regional Universities Network, should consider a unified position on steps to uplift and enhance the protection of IP generated by their research (especially where that research involves overseas partners). Such protections could include stronger contract terms or clearer IP assignments during contract negotiations with foreign entities.

International Risks in Research

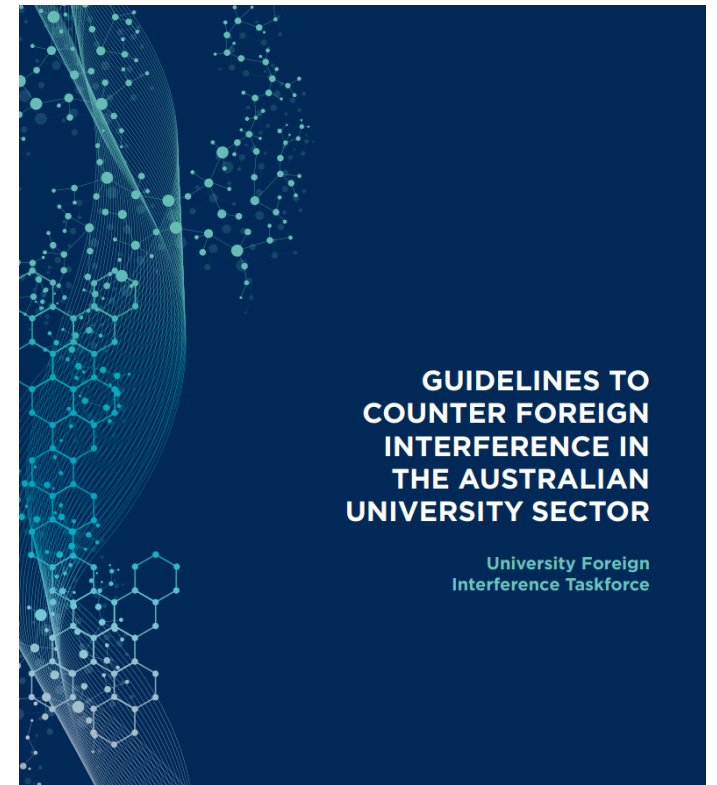
1. Foreign interference
2. Foreign influence
3. Data and intellectual property theft
4. Espionage
5. Cybersecurity/attacks
6. Staff and student travel
7. Research collaboration
8. International student enrolments
 1. Financial position of institutions
 2. Diversity of student cohort
 3. Public view of universities



Guidelines

Four pillars:

1. Governance and risk frameworks
2. Communication, education and knowledge sharing
3. Due diligence, risk assessments and management
4. Cybersecurity



Legislative and regulatory frameworks

- Autonomous Sanctions Act
- Autonomous Sanctions Regulations
- Foreign Influence Transparency Scheme Act
- Defence Trade Controls Act
- Defence Trade Controls Regulation
- Export Control Act
- National Security Legislation Amendment (Espionage and Foreign Interference)



It's necessary to make clear that most of these legislative and regulatory frameworks were not, in the first instance, designed to address risks to research security. But, rather than holding these frameworks to standards that they weren't initially designed to meet, this paper seeks to highlight opportunities where such frameworks can be adapted to be fit for purpose for the risks that are confronting Australia's research ecosystem—not just today, but also into the future.

Established risk mitigation HDR

- Partnership agreement
 - International compliance review
- HDR admission or enrolment
 - Sanctioned countries
 - Visa cancellation or refusals
- Change in project or topic
 - Critical technologies (July 2022)
- Scholarship provision
 - External Government
- Student and supervisor travel
 - Travel approval

Risk

- Nomination of examiners
 - International suppliers
- Economic/financial pressure
 - Externally funded HDR candidates
- Managing Conflicts of Interest
 - Financial vs other
 - COI register



Group activity

What awareness, training and professional development does your university offer to HDR candidates and staff (including both professional and academic staff) relevant to international compliance and risk?

1. Do you have mandated training for HDR candidates and supervisors on cybersecurity?
2. Is training on international compliance and foreign interference a requirement for all HDR candidates?
3. How are risk registers for foreign interference managed, maintained and reported upon?

Case Study 1

Aisha Rahman is a PhD candidate engineering microbial systems to improve crop resilience and nutrient uptake. Her scholarship is supported by the Institute of Transport and Logistics in Kandra, a country under partial international sanctions.

Aisha has been invited to spend nine months at the Institute in Kandra. The institute offers access to high-containment laboratories and advanced gene-editing equipment not available in Australia. Kandra's institute is state-funded and collaborates with its Ministry of Defense on biosecurity projects. Aisha's research involves CRISPR-based gene editing of microbial strains, which could theoretically be adapted for pathogenic organisms (dual-use risk). Kandra is listed as a high-risk jurisdiction for foreign interference and IP theft.

1. What compliance checks must be undertaken before approving or rejecting the request?
2. What indicators of foreign interference or IP risk are present?
3. How do you evaluate the dual-use nature of the research?
4. Should the university allow the placement given the sanctions and defence links? Who would make this decision at your institution?
5. If approved, what safeguards should be implemented (e.g. export permits, IP agreements, monitoring)?
6. If declined, what alternative arrangements can support the candidate's research goals?

Case Study 2

Dragan Petrovic is a second-year PhD candidate at your institution. Dragan approaches the Graduate Research Office with a request to change from oncampus to online enrolment and return to their home country, Korvia, which has recently entered a period of armed conflict. He intends on return to Korvia for 12 months citing family obligations and concerns.

Dragan has completed all of his data collection but intends on writing his thesis from his home country. Supervisors are supportive and Dragan assures the team that data will be encrypted and shared securely, and that the research will remain under your universities' ethics approval. Korvia is on the Department of Home Affairs' list of high-risk jurisdictions for foreign interference. Travel advisories classify Korvia as "Do Not Travel" due to armed conflict.

1. What compliance checks must be undertaken before approving or rejecting the request?
2. How do you assess the risk of foreign interference in this scenario?
3. How do you balance student rights, academic freedom and national security obligations?
4. What duty of care does the university have regarding the candidate's safety and well-being in Australia or if travelling home?
5. If approved, what safeguards should be implemented?
6. If declined, what alternative pathways can be offered to support the candidate?

Case Study 3

Leila Hassan, final-year PhD candidate in Political Sociology. Her PhD is titled '*Authoritarian Governance and Civil Society Resistance: A Comparative Analysis*'. Leila's thesis critically examines governance practices in her home country, Azmar, highlighting systemic corruption and suppression of civil liberties.

Her work includes interviews with political dissidents and analysis of leaked government documents. Sensitive data could expose interview participants if accessed by Azmar authorities. Azmar has strict laws criminalising criticism of the government and is ranked as "extreme risk" for academic freedom by international watchdogs. Leila's visa is due to expire in six months, and she fears for her safety if required to return home.

Azmar's embassy has contacted the Graduate Research Office requesting details of students researching "political stability". Azmar has also approached the Graduate Research Office seeking advice.

1. What risks exist and how would you manage this situation?
2. What duty of care does the university have regarding the candidate's safety?
3. What steps should the university take to assess and mitigate personal safety risks for Leila?
4. How do you manage potential diplomatic pressure from Azmar's embassy?
5. How do you protect sensitive research data from external access?

Case Study 4

Minh Tran, a fee-paying international PhD students is investigating health system responses to pandemics in low-resource settings. Minh is not receiving a scholarships through the university.

The Graduate Research Office has become aware that prior to enrolment Minh received \$50,000 in funding to support her fee costs by the Health Ministry of Lantora, a country where Minh plans to conduct interviews and policy analysis. Minh's research involves sensitive analysis of pandemic preparedness, which could expose governance weaknesses in Lantora.

The Lantoran Health Ministry has strong ties to its ruling political party and has requested early access to findings for "policy alignment".

1. How would you manage this situation?
2. How do you evaluate the influence of external funding on research independence?
3. What indicators of foreign interference or undue influence are present?
4. How do you protect the integrity of the research and the candidate's academic freedom?
5. what safeguards should be implemented (e.g., funding agreements with independence clauses, disclosure requirements, monitoring)?