LINCOLN UNIVERSITY

TE WHARE WĀNAKA O AORAKI

LINCOLN UNIVERSITY COUNCIL

AGENDA & PAPERS

At 9am on Tuesday, 17 December 2024 a meeting of Lincoln University will be held in Whare Auaha Meeting Room, Ground floor, Waimarie, Lincoln Campus

Click on this link to join the meeting: Click here to join the meeting

Lincoln University Strategy 2019-2028

Vision

To be a globally-ranked, top-five land-based University, unlocking the power of the land to enhance lives and grow the future.

Purpose

To facilitate excellent research and education to grow the knowledge of our students and help shape a world that benefits from a greater understanding of the relationships between land, food and ecosystems.

Strategy 2019-2028

- A distinctive, Aotearoa New Zealand, end-to-end student experience
- Improved assets and sustainable operating models
- A culture which stimulates and inspires all staff and students
- World-class research and teaching with impact
- An organisation focused on meaningful partnerships
- Facilitating student growth

Values

Manaakitaka – Looking after people

STRATEGY GOALS		PRIORITY AREAS 2024-2028
GOAL 1	A distinctive, Aotearoa New Zealand, end-to-end student experience	• Provide an enriching and successful experience for all students within an environment that empowers them to thrive and achieve their goals. • Ensure quality streamlined student services that are responsive and focused on supporting wellbeing and success. • Enhance student experiences for postgraduate students. • Develop research-rich graduates. • Grow graduates ready for New Zealand's future workforce
GOAL 2	Improved assets and sustainable operating models	• Establish a clear pathway to carbon neutrality by 2030. • Make our organisation an exemplar of sustainable practices. • Establish a flexible, agile, and effective University operational framework • Digitally enable our University
GOAL 3	A culture which stimulates and inspires all staff and students	• Support and nurture a culturally inclusive campus. • Embed and celebrate our Takata Whenua. • Develop a values-driven culture that fosters a sense of identity, shared purpose and commitment. • Grow our staffthrough early career development, professional development, and workforce planning. • Manage workloads consistent with a research-intensive, specialist university focused on the land-based sectors.
GOAL 4	World-class research and teaching with impact	• Accelerate research impact and relevance to the land-based sectors through sustained research excellence and collaboration. • Provide innovative academic programmes that anticipate the workforce needs of land-based sectors
GOAL 5	An organisation focused on meaningful partnerships	• Grow our impact through partnerships. • Develop, nurture, and promote a culture of collaboration. • Build coherence between research and education in all partnerships
GOAL 6	Facilitating student growth	• Meet land-based sector workforce needs and challenges • Expand our reach to a wider group of potential students. • Increase participation and engagement of Māori and Pasifika students

Council Meeting - 17 December 2024

CONFIDENTIAL

17 December 2024 09:00 AM - 01:00 PM

Agenda Topic — Page

9am on Tuesday 25th February 2024, in Memorial Hall, Lincoln Campus and by MS Teams.

Karakia Timataka

Kimihia rapuhia

Whaia ki te Uru Tapu nui o Tane

Tane te waiora

Tane te wanaka

Tane te tokoraki

Puta ki te whaiao ki te ao marama

Tu te kana

Tu te maraka

Te tu hi te rarama

E noho te mataara nei

E roko whakairia ake ki ruka

Kia tina! tina! Haumi e! Hui e! Taiki e!

Opening Prayer

Let us pursue and follow Tāne into the highest realms.

The sacred repository of knowledge.

Tāne, the waters of life and wellbeing.

Tāne, the repository of all knowledge and wisdom.

Tāne who propped up the heavens.

Bringing forth the light, the broad daylight so that all life realises its potential.

It is Tū who preserves and protects the sacredness of all.

It is Tū who awakens the path of light within, imbuing his qualities of vigilance.

That our eyes may ever focus on the path ahead, in order that we may pass over the state of tapu to allow the renewal of peace to be suspended from on high. Make it firm, it is firm.

Join it, gather it. It is done!

STRICTLY CONFIDENTIAL

Council Members' Interests Register

Councillor	Name of Company / Institution	Dates Applicable	Position	Comments	Updated
Janice Fredric	Mainpower Ltd	Current	Director		1 February 2022
Janice Fredric	Aurora Energy Limited	Current	Director		1 July 2022
Janice Fredric	~~Aviation Security Services~~	~~Current~~	~~Chairman~~		24 July 2024
Janice Fredric	~~Civil Aviation Authority~~	~~Current~~	~~Chairman~~		24 July 2024
Janice Fredric	~~Unity Credit Union~~	~~Current~~	~~Chair of Audit and Risk Committee~~	~~Formerly Credit Union Baywide and Credit Union South~~ Chair role ends on 28 October 2022	1 October 2022
Janice Fredric	Green Power New Zealand Ltd	Current	Director	Reappointed with effect 21 August 2024	26 August 2024
Janice Fredric	Mt Cass Wind Farm Ltd	Current	Director	Reappointed with effect 21 August 2024	26 August 2024
Janice Fredric	Timaru District Council	Current	Independent member of Audit and Risk Committee		
Janice Fredric	NZ Shipwreck Welfare Trust	Current	Trustee		
Janice Fredric	Tregynon chartiable Trust	Current	Trustee		
Janice Fredric	NIWA	Current	Director		
Janice Fredric	NIWA Vessel Management Limited	Current	Director		
Janice Fredric	~~NZ Growth Capital Partners Limited~~	~~Current~~	~~Director~~	Ceased directorship 10 September 2024	26 August 2024
Janice Fredric	~~Aspire NZ Seed Fund Limited~~	~~Current~~	~~Director~~	Ceased directorship 10 September 2024	26 August 2024
Janice Fredric	~~Elevate NZ Venture Fund GP Ltd~~	~~Current~~	~~Director~~	Ceased directorship 10 September 2024	26 August 2024
Bruce Gemmell	The Gemmell Group Limited	Current	Director, Shareholder		1 February 2022
Bruce Gemmell	The Highlanders GP Limited	Current	Director		
Bruce Gemmell	~~Miramar Consolidated Limited~~	~~Current~~	~~Director~~	Removed 21 May 2024	21 May 2024
Bruce Gemmell	The Second Little Pig Was Right Limited	Current	Director, Shareholder		
Bruce Gemmell	ATT Trustee Limited & associated subsidiaries	Current	Director	Non-trading	
Bruce Gemmell	Lincoln Agritech Limited	Current	Chair		
Bruce Gemmell	Lincoln University Centennial Trust	Current	Ex-officio Trustee		
Bruce Gemmell	Lincoln University Foundation Trust	Current	Ex-officio Trustee	Formally constituted 12 November 2019	
Bruce Gemmell	Gemmell Finance Limited	Current	Director, Shareholder		
Bruce Gemmell	Nitrolabs Limited & Associated companies	Current	Director		
Bruce Gemmell	Central Plains Water Limited	Current	Director		
Bruce Gemmell	Buller Electricity Limited & associated subsidiaries	Current	Director	Director from 1 September 2021	
Bruce Gemmell	Planz Consultants Ltd	Current	Director		
Bruce Gemmell	Nexia Limited	Current	Director		
Bruce Gemmell	Selwyn District Council	March 2024 - current	Independent member of Audit and Risk Committee	Appointed in March 2024	1 March 2024
Bruce Gemmell	Waldmel Holdings Limited	July 2024 -Current	Director		
James Parsons	Ashgrove Genetics Limtied	Current	Director		
James Parsons	Agfirst Northland Limited	Current	Director		
James Parsons	Trevear Limited	Current	Director, Shareholder		
James Parsons	Wools of New Zealand Holdings Limited	Current	Director		
~~**James Parsons**~~	~~Wools of New Zealand General Partner Limited~~	~~Current~~	~~Director~~	Ceased Directorship 14 May 2024	25 July 2024
James Parsons	Ashgrove Limited	Current	Director		
James Parsons	Ospri New Zealand Limited	Current	Director		
James Parsons	National Animal Identification and Tracing (NAIT) Limited	Current	Director		
James Parsons	TBFree New Zealand Limited	Current	Director		
James Parsons	Halter USA Inc	Current	Advisor		1 July 2023
James Parsons	M. Bovis Free New Zealand Limited	July-24	Director		25 July 2024
David Philip Jensen	Colebrook KiwiFruit Orchard GP Limited	2020-current	Chair		1 February 2022
David Philip Jensen	Pongakawa Kiwifruit GP Limited	2020-current	Chair		
David Philip Jensen	Riverview Kiwifruit GP Limited	2020-current	Chair		
David Philip Jensen	Otamarakau Kiwifruit GP Limited	2020-current	Chair		
David Philip Jensen	Awakeri Orchard GP Limited	2019-current	Chair		
David Philip Jensen	El Dorado Orchard GP Limited	2018-current	Chair		

Councillor	Name of Company / Institution	Dates Applicable	Position	Comments	Updated
David Philip Jensen	Expressway Orchard GP Limited	2017-current	Chair		
David Philip Jensen	Gold Income GP Limited	2021-current	Chair		
David Philip Jensen	MyFarm Kiwifruit Fund	Jun 2024 - current	Chair		1 June 2024
David Philip Jensen	Eastpack Limited	2018-current	Director		
David Philip Jensen	Merrijig Development sLImited	Current	Shareholder		
David Philip Jensen	Figured Limited	Current	Shareholder		
David Philip Jensen	New Zealand Dairy Dessert Company	Current	Shareholder		
David Philip Jensen	Fonterra	Current	Shareholder		
David Philip Jensen	Zespri	Current	Shareholder		
David Philip Jensen	Eastpack Limited	Current	Shareholder		
David Philip Jensen	LIC	Current	Shareholder		
David Philip Jensen	Ballance Agri Limited	Current	Shareholder		
David Philip Jensen	Farmlands Co-operative Society Limited	Current	Shareholder		
David Philip Jensen	Napoli Orchard GP	2018-current	Chair		
David Philip Jensen	Eastern Orchards Orchard GP	2019-current	Chair		
David Philip Jensen	Chair Gliding NZ Trust	Current	Trustee		
David Philip Jensen	PinPoint Labs	Current	Chair and Director	Elected Chairperson January 2023	Jan-23
David Philip Jensen	Pasture Accelerator	Current	Chair	JV bentween MPI, PGW, DairyNZ and Barenb	Apr-23
Professor Grant Edwards	Lincoln University	Current	Vice-Chancellor		1 February 2022
Professor Grant Edwards	Lincoln University Council	Current	Ex-officio Member		
Professor Grant Edwards	Universities New Zealand, (Vice-Chancellors Committee)	Current	Ex-officio Member		
Professor Grant Edwards	New Zealand Food Innovation Ltd	Current	Director	New Zealand Food Innovation Auckland & New Zealand Food Innovation (South Island) LImited	1 October 2024
Professor Grant Edwards	Lincoln Agritech Limited	Current	Director		
Professor Grant Edwards	Lincoln University Foundation	Current	Ex-officio Trustee		
Professor Grant Edwards	Lincoln University Centennial Trust	Current	Ex-officio Trustee		
Professor Grant Edwards	Lincoln University Alumni Association	Current	Ex-officio Patron		
Professor Grant Edwards	Member of Steering Governance Group, Forage Value Index, 2014-present	Current	Member		
Professor Grant Edwards	South Island Dairying Development Centre Leaders Forum Chair	Current	Chair		
Professor Grant Edwards	Biological Heritage National Science Challenge, Challenge Parties Working Group (Co-Chair as UNZ representative)	Current	Co-Chair		
Professor Grant Edwards	Committee of University Academic Programmes (CUAP)	Current	Chair		
Professor Grant Edwards	Don Hulston Foundation	Current	Ex-officio University Trust		
Professor Grant Edwards	Ivey Hall and Memorial Hall 125th Anniversary Appeal Gifting Trust	Current	Ex-officio University Trust		
Professor Grant Edwards	Ivey Hall and Memorial Hall 125th Anniversary Appeal Taxable Activity Trust	Current	Ex-officio University Trust		
Professor Grant Edwards	John Mowbray Howard Tripp Agricultural Scholarship Trust	Current	Ex-officio University Trust		
Professor Grant Edwards	J W and Carrie McLean Trust	Current	Ex-officio University Trust		
Professor Grant Edwards	Kathleen Ann Stevens Scholarship Trust	Current	Ex-officio University Trust		
Professor Grant Edwards	Leslie John and Lola June Struthers Trust	Current	Ex-officio University Trust		
Professor Grant Edwards	Sir Arthur Sims Scholarship Trust	Current	Ex-officio University Trust		
Professor Grant Edwards	Vernon Willey Trust	Current	Ex-officio University Trust		
Professor Grant Edwards	Academic Quality Agency Board (as UNZ representative)	Current	Member		1 August 2023
Puamiria Parata-Goodall	Lincoln University	Current	Council Member and Cultural Advisor	Cultural Advisor to Mana Whenua Cultural Na	1 March 2024
Puamiria Parata-Goodall	Te Taumutu Rūnanga	Current	Portfolio Leader, Member of Executive		
Puamiria Parata-Goodall	Selwyn District Council	Current	Pou Kaiawhā, Executive Cultural Advisor		
Puamiria Parata-Goodall	AgResearch	Current	Consultant - Cultural Narrative		
Puamiria Parata-Goodall	Te Pakura Limited	Current	Director & Cultural Advisor to Mana Whenua Cultural Narrative		
Puamiria Parata-Goodall	Ngāi Tahu Fund	Current	Chair		
Puamiria Parata-Goodall	Canterbury Museum Board	Current	Member, Kaiurungi - Ōhākī o Ngā Tīpuna, Cultural Advisor		
Puamiria Parata-Goodall	Te Pae Korako Ngāi Tahu Archives & Whakapap	Current	Member		
Puamiria Parata-Goodall	Rarotoka Management Limited	Current	Director, Shareholder		
Puamiria Parata-Goodall	Arts Council	Current	Member, Co-Chair - Komiti Māori		1 May 2024

Councillor	Name of Company / Institution	Dates Applicable	Position	Comments	Updated
Elizabeth Hill-Taiaroa	Te Taumutu Rūnanga	Current	Secretary & Oranga leader		1 April 2023
Professor Derrick Moot	Lincoln University	Current	Professor		1 June 2022
Professor Derrick Moot	Tertiary Education Union	Current	Member		1 June 2022
Professor Derrick Moot	Free Speech Union	Current	Member		1 June 2023
Dr Maria Janna van den Belt	Cogo Connecting Good Limited	Current	Shareholder		1 June 2021
Dr Maria Janna van den Belt	College of Assessors of MBIE	Current	Member		
Dr Maria Janna van den Belt	EHF Fellowship	Current	Fellow		
~~**Dr Maria Janna van den Belt**~~	~~MPI-Fisheries New Zealand~~	~~Current~~	~~Chief Economist~~	~~Updated name of organisation~~	~~17 May 2024~~
Dr Maria Janna van den Belt	~~Global Research consortium (USA, China, Europe) Safe Seaweed by Design (research pro~~	Current to Feb 2023	~~Member of Advisory Board~~	~~Research project involving representatives fr~~	~~1 September 2022~~
Gabrielle Thompson	Olsen Thompson Limited	Current	Director & Shareholder		
Gabrielle Thompson	Hollyfort Farm Limited	Current	Shareholder		
Gabrielle Thompson	Thompson Family Farm Limited	Current	Shareholder		
Gabrielle Thompson	Silver Fern Farms Co-Operative Limited	Current	Director		
Gabrielle Thompson	Thompson Family Trust	Current	Trustee		
Gabrielle Thompson	Pretty in Pink Charity Trust	Current	Trustee		
Gabrielle Thompson	Ballance	Current	Shareholder		
Gabrielle Thompson	Farmlands Co-Operative Ltd	Current	Shareholder		
Gabrielle Thompson	Thompson Property Trust	Current	Trustee		
Gabrielle Thompson	Ravensdown	Current	Shareholder		
Gabrielle Thompson	Thompson Forestry Limited	Current	Director and Owner	Effective from 15 December 2022	
Zara Weissenstein	Lincoln University Students' Association	Current	President		1 December 2024

Register of interests – Senior Leadership Team – 2024

SLT member	Organisation	Date	Position	Notes
Grant Edwards	Lincoln University	Current	Vice-Chancellor	
	Lincoln University Council	Current	Ex-officio Member	
	Universities New Zealand, (Vice-Chancellors Committee)	Current	Ex-officio Member	
	New Zealand Food Innovation Limited	Current	Director	
	Lincoln Agritech Limited	Current	Director	
	Lincoln University Foundation	Current	Trustee	
	Lincoln University Centennial Trust	Current	Trustee	
	Member of Steering Governance Group, Forage Value Index, 2014-present	Current	Member	
	South Island Dairying Development Centre Leaders Forum Chair	Current	Chair	
	Biological Heritage National Science Challenge, Challenge Parties Working Group (Co-Chair as UNZ representative)	Current	Co-Chair	
	Committee of University Academic Programmes (CUAP)	Current	Chair	
	Academic Quality Agency for New Zealand Universities (AQA)	Current	Board Member	
	Don Hulston Foundation	Current	Ex-officio University Trust	
	Ivey Hall and Memorial Hall 125th Anniversary Appeal Gifting Trust	Current	Ex-officio University Trust	
	Ivey Hall and Memorial Hall 125th Anniversary Appeal Taxable Activity Trust	Current	Ex-officio University Trust	
	John Mowbray Howard Tripp Agricultural Scholarship Trust	Current	Ex-officio University Trust	
	J W and Carrie McLean Trust	Current	Ex-officio University Trust	
	Kathleen Ann Stevens Scholarship Trust	Current	Ex-officio University Trust	
	Leslie John and Lola June Struthers Trust	Current	Ex-officio University Trust	
	Sir Arthur Sims Scholarship Trust	Current	Ex-officio University Trust	
	Vernon Willey Trust	Current	Ex-officio University Trust	
Karen McEwan	Lincoln University	2019-	Executive Director, People, Culture, and Wellbeing	

Updated July 2024

	Senior Leadership Team, Lincoln University	2019-	Member	
	Ceiling Clean WGTN Limited	1982-	Shareholder	
Susie Roulston	Lincoln University	2021-	Chief Operating Officer	
	Senior Leadership Team	2021-	Member	
	Hayden Roulston Limited	2017		Susie's Partner (sports Coaching)
	Lincoln University Property Joint Venture Limited	2022-	Director	From 1 December 2022
Alistair Pearson	Property Council New Zealand	2019-current	Executive	
Chad Hewitt	Royal Society of New Zealand	Current	Member	
	Universities New Zealand, DVC Research Committee	Current	Ex-officio member	
	Universities New Zealand, DVC Academic Committee	Current	Ex-officio member	
	~~Universities New Zealand, CUAP~~	~~Current~~	~~Ex-officio member~~	Effective 31/10/2023
	NZ Synchrotron Group Ltd	Current	LU Representative	
	College of Assessors	Current		
	Better Border Biosecurity Collaboration Council	Current	Member	
	LU Senior Management Team	2023-		
	HZAU Lincoln Joint Institute Joint Management Committee	2024-	Vice-Chair	Effective 3/7/24
	Bioprotection Aotearoa Strategic Advisory Board	2024-	Host Representative	Effective 3/7/24
Merata Kawharu	Tūrama Trustees Limited	Current	Director	
	Nukuroa Consulting Limited	Current	Director & Shareholder	
	Takarangi Limited	Current	Director	
	E Mara E Limited	Current	Director & Shareholder	

Updated July 2024

LINCOLN UNIVERSITY COUNCIL

Minutes of a meeting held on Tuesday 26 November 2024 at 9am in Whare Auahu, ground floor, Waimarie and online via MS Teams

Meeting Minutes

Present: Bruce Gemmell (Chancellor), Prof. Grant Edwards (Vice Chancellor), Demetrio Cooper, Michelle Ash, David Jensen, Janice Fredric, Prof. Derrick Moot, James Parsons, Puamiria Parata-Goodall, Dr Marjan van den Belt, Gabrielle Thompson (each a Council Member).

Via MS Teams: Liz Hill-Taiaroa

In attendance: Mrs S Roulston (Chief Operating Officer)
Mr N Heslop (Council Secretary)
Mr Greg Ryan (Proctor)
Ms Z Weissenstein (incoming LUSA President)
Prof C Hewitt (Provost)
Mrs K McEwan (Executive Director People, Culture, & Wellbeing)

Meeting started at 9.01am.

1. Welcome/Karakia/Apologies

The Chancellor welcomed Councillors to the meeting and invited Mrs Puamaria Parata-Goodall to open the meeting with karakia.

2. Disclosures of interests

The Register of Interests was NOTED.

3. Confirmation of the Previous Meeting Minutes

Council RESOLVED:

To confirm the minutes from the Council meetings held on 29th October 2024 as true and correct record. ***Resolution***

MOTION CARRIED

4. Matters arising from the Minutes

The action register was NOTED.

The Council Secretary gave a verbal update on several matters arising from the minutes, a number of reports that will be presented to Council in December.

5. Notice of items of General Business

UNCONFIRMED

There were no items of general business.

6. Chancellors Report

The report was taken as read.

Resolution
That Council:

Resolution

1. **RECEIVE** the information in the Chancellor's Report.

MOTION CARRIED

6.1 Conferment of Qualification Regulations

The report was taken as read.

Council talked about the graduation ceremony and importance of the event to Lincoln graduate and alumni with an endorsement from the Chancellor to continue to have a quorate Council noting there will be additional graduation ceremonies on account of the number of graduates.

Resolution
That Council:

1. **RECEIVE** the information in this report.

2. **NOTE** it is intended that all qualifications will be conferred to recipients by way of resolution at a Council meeting no later than 30 April each calendar year.

Resolution

3. **NOTE** that section 283(2)(a) Education and Training Act 2020 vests the power to award qualifications in Lincoln University Council, and that this power may not be delegated.

4. **APPROVE** the Conferment of Qualifications Regulations as outlined in Appendix A.

MOTION CARRIED

7.1 Election of Pro-Chancellor 2025

The Chancellor stepped away from the table and the chair of the Chairperson of the Appointment and Remuneration Committee chaired the meeting.

Resolution
That Council:

1. **ELECT** Puamiria Parata-Goodall as Pro-Chancellor of Lincoln University

UNCONFIRMED

Council for a one-year term from 1 January 2025 to 31 December 2025 in accordance with Schedule 11, Section 5 of the Education and Training Act 2020. ***Resolution***

MOTION CARRIED

7.2 Election of Chancellor 2025

The Chair of the Appointment and Remuneration Committee chaired the meeting and election of the Chancellor.

Resolution

That Council:

1. **ELECT** Bruce Gemmell as Chancellor of Lincoln University Council for a one-year term from 1 January 2025 to 31 December 2025 in accordance with Schedule 11, Section 5 of the Education and Training Act 2020. ***Resolution***

MOTION CARRIED

8. Vice Chancellors Report

The report was taken as read. The Vice Chancellor highlighted the following:

- Progress on the Campus Development Program has received recognition through awards for Waimarie at the 2024 World Architecture Award for Higher Education and Research.
- Lincoln University is strengthening its relationship with Selwyn District Council and Environment Canterbury, noting that a good percentage of Environment Canterbury staff are Lincoln University graduates.

Council discussed the IQA process and close out reports for capital works on campus, noting the importance of keeping a vigilant oversight of projects.

Notwithstanding the decommissioning of a boiler there will be a carbon emission tail that needs a plan to offset so the University does not need to purchase carbon credits.

Council discussed food preparation at Lincoln and were advised by staff that a catering audit at Lincoln University has been extended to an 18-month cycle. This is a good result in an environment where other tertiary institutions have a shorter six-month cycle.

Council Resolution

That Council:

1. **RECEIVE** the information in the Vice Chancellor's Report. ***Resolution***

MOTION CARRIED

9. LUSA Report

The report was taken as read. The LUSA President highlighted the following:

UNCONFIRMED

- Following the Garden Party LUSA met with Health Canterbury, Noise Control, & Selwyn District Liquor Licensing for community feedback and did not receive any major concerns.
- The Student Job Search report included in the report highlights the non-permanent job market is challenging for students at the present point in time with less jobs being advertised.

The Chancellor encouraged the Vice Chancellor to consider the level of support the University provides LUSA around the garden party given that numbers have been constrained in response to signals sent by the University.

Council Resolution

That Council:

Resolution

1. **RECEIVE** the information in the LUSA Report.

MOTION CARRIED

James Parsons left the meeting at 10.20am and returned at 10.22 am during consideration of item 10.

10. Academic Board Report

The report was taken as read.

The Vice Chancellor advised Council that the graduating year reviews were discussed at the meeting and Council is being asked to approve for submission to CUAP in 2025 the introduction of two new doctorates and modification of two master level qualifications.

Council discussed the awarding of higher doctorates and alignment with Lincoln University's strategy.

Council Resolution

That Council:

1. **NOTE** the information provided in the Academic Board report.

2. **APPROVE** the following proposal for submission to CUAP by 1 March for Round 1, 2025:

   (a) Proposal to Introduce a Doctor of Humanities.

   (b) Proposal to Introduce a Doctor of Social Sciences.

   (c) Proposal to Modify the Master of Sport and Recreation Management.

   (d) Proposal to Modify the Master of Tourism Management

   (e) Proposal to Delete the Graduate Certificate in Academic English

Resolution

MOTION CARRIED

UNCONFIRMED

11. Student Discipline Regulations

The report was taken as read. The Proctor informed Council:

- The disciplinary regulations have been amended due to the changing environment with online learning, artificial information, and emerging change in student behaviour.
- These regulations have been reviewed by the Student Experience Board, LUSA executive, and University General Counsel.
- This iteration includes reasonably minor amendments.

Resolution

That Council:

1. **APPROVES** the attached Student Discipline Regulations with minor corrections and notes they will be reviewed in three years, according to the policy review process.

Resolution

MOTION CARRIED

12. Appoint a Student Member to Council

The report was taken as read.

Resolution

That Council:

1. **RECEIVE** the information in this report.
2. **NOTE:**

(a) elections for the 2025 Lincoln University Student Association executive were held between 27th September and 1 October 2024 in accordance with the LUSA Constitution.

(b) Student voter turnout was 12.29%

Resolution

(c) Ms Zara Weissenstein was the only, and highest polling candidate for the President of the Lincoln University Student Association position.

3. **APPOINT** Ms Zara Weissenstein as a member of Council for a twelve-month term, commencing on 1 December 2024 in accordance with clause 4.1 of the Council Appointments Statute.

MOTION CARRIED

13. General Business

There were no items of general business.

UNCONFIRMED

14. Motion by the Chancellor for Resolution to Exclude the Public Pursuant to s48 of the Local Government Official Information and Meetings Act 1987

I move that the public be excluded from the following parts of the proceedings of this meeting, namely:

General Subject Matter	*Reason for passing this resolution in relation to each matter*	*Grounds under section*
Health & Safety Report	To avoid prejudice or disadvantage to the commercial activities of the University To prevent the disclosure or use of official information for improper gain or improper advantage	7(2)(h) 7(2)(j)
Lincoln Agritech Limited Letter of Expectation	To avoid prejudice or disadvantage to the commercial activities of the University To maintain the effective conduct of public affairs through the free and frank expression of opinions by or between or to members or officers or employees of any local authority	7(2)(h) 7(2)(f)(i)
Audit, Risk, & Assurance Committee Report to Council 1. Report 2. Minutes from meeting on 19 November 2024 3. 2025 Budget 4. EJR Prefab Accommodation Investment Case	To avoid prejudice or disadvantage to the commercial activities of the University To prevent the disclosure or use of official information for improper gain or improper advantage	7(2)(h) 7(2)(j)
Ahumairaki Report to Council 1. Report 2. Minutes from meeting on 13 November 2024 3. Manaaki Tauira Report	To avoid prejudice or disadvantage to the commercial activities of the University	7(2)(h)
Monthly Recruitment Report	To avoid prejudice or disadvantage to the commercial activities of the University To prevent the disclosure or use of official information for improper gain or improper advantage	7(2)(h) 7(2)(j)
Finance Report	To avoid prejudice or disadvantage to the commercial activities of the University To prevent the disclosure or use of official information for improper gain or improper advantage	7(2)(h) 7(2)(j)
Scholarships Approval by Council	To protect the privacy of natural persons	7(2)(a)

I move also that: Professor Grant Edwards (Vice-Chancellor), Prof Chad Hewitt (Provost), Ms T Nelson (Bio-Compliance Officer), Mr S Hunter (Health, Safety & Wellbeing Manager), Prof Merata Kawharu (Deputy Vice Chancellor, Māori and Pasifika), Mrs E Rooney (Finance Director), Mrs S Roulston (Chief Operating Officer), Mr D Cooper (LUSA President), Mr Alistair Pearson (Property Director), MS Z Weissenstein (incoming LUSA President) and Mr Nathaniel Heslop (Council Secretary), be permitted to remain at this meeting after the public has been excluded, because of their knowledge of the various matters being discussed. This knowledge, which will be of assistance in relation to the matters to be discussed, is relevant to those matters because of their involvement in the development of reports to Council on these matters.

MOTION CARRIED

The public were readmitted to the meeting at 12.49pm

14. Closure and next Meeting

The meeting closed at 12.50pm.

The next meeting is scheduled for Tuesday, 17th December 2024 at 9am and will be held in Whare Auahu, ground floor in Waimarie, at Lincoln Campus.

CONFIRMED THIS 17th DAY OF December 2024

BRUCE GEMMELL

CHANCELLOR

UNCONFIRMED

Action Number	Action Summary	Action Type	Originating Meeting	OM Date	Agenda Item	Destination Meeting	DM Date	Responsibility	Due Date	Notes
Completed Actions										
636	Create schedule of Council and SLT walk around campus	Organise	Council	27/08/2024		Council	29/10/2024	Heslop, Nathaniel	17/10/2024	Included in Health & Safety Assurance Program Report
In Progress										
635	Create a dashboard with information on Education Performance Indicators for Recruitment Report to align with strategy	Update Report	Council	30/07/2024	6	Council	29/07/2024	Lodge, Damian & Heslop, Nathani	5/12/2024	Staff are working on the report and this will be presented ot Council in a recruitment report in 2025.
638	Organise a Council Strategy Day	Organise	Council	27/08/2024				Heslop, Nathaniel & Edwards, Gra	28/02/2025	The Chancellor suggested a Council Strategy Day be held in 2025. A report will be considered by Council at its meeting in December to inform a Strategy Day in Q1 2025.
643	Improve the information provided in the Health & Safety Report	Update Report	Council	29/10/2024		Council	29/10/2024	McEwan, Karen & Heslop, Nathani	17/12/2024	
Not started										
639	Write a letter to UAG following visit to Lincoln on 20 August	Organise	Council	30/07/2024	6			Heslop, Nathaniel, Edwards, Grant & Gemmell, Bruce	20/09/2024	This has been placed on hold until second UAG meeting scheduled on 9 December 2024.

Chancellor's Office

Version: 1.0

Chancellor's Meetings & Correspondence

Author/s: Nathaniel Heslop

Date: 10 December 2024

Purpose

This report summarises the stakeholder meetings undertaken by the Chancellor in between 30 November 2024 through to Council on 17 December 2024.

Executive Summary

Stakeholder meetings

11 December 2024	Lincoln Agritech Limited

Other Engagements

9 December 2024	University Advisory Group

Correspondence

2 December 2024	Correspondence to Dist. Prof. Caroline Saunders & Prof. Paul Dalziell

Vice-Chancellor's Report to Council

December 2024

The Government's decision to disband the humanities and social sciences panels from the Marsden Fund is deeply concerning and has implications for the direction of research in New Zealand. As a specialist land-based University, we consider that the humanities and social sciences, including mātauranga, core to the future of land-based economies' ability to embrace sustainability as a core principle.

Te Whare Wānaka o Aoraki Lincoln University publicly supports the contributions of humanities and social science researchers to land-based sectors and fundamentally sees the great value and enormous increased benefit of transdisciplinary engagement between the natural sciences, social sciences and humanities. Our purpose is to be leaders in research for the land and people and provide exemplars of sustainable economic, environmental, cultural and social practices that critically drive our commitment to the humanities and social sciences' contribution to understanding our world. A commitment that honours our core values of rakatirataka and kaitiakitaka.

Lincoln University fully endorses Te Pōkai Tara Universities New Zealand's (UNZ) statement and will continue to acknowledge and promote the value of the diverse range of disciplines in the humanities and social sciences.

Growing impact through meaningful partnerships and engagement

White paper collaboration with Selwyn District Council

Following the signing of a Memorandum of Understanding (MoU), Lincoln University and Selwyn District Council (SDC) are collaborating on two key work streams - Selwyn as a knowledge hub and addressing future workforce needs. Under the Knowledge Hub programme, teams from Lincoln University supported by Council staff, will assess the options and benefits of Medium Density Housing alternatives for the District with the primary question being how Selwyn can achieve the strategic direction of promoting and incentivising intensification in appropriate locations contained within the Waikirikiri Ki Tua Future Selwyn? The programme will explore alternate typologies and block scale development that achieves better outcomes and will address key questions such as what bulk and location provisions deliver the best outcomes, and what could block scale development look like? This white paper will inform SDC's response to the government's Medium Density Standards changes and shape what intensification looks like for Selwyn towns. It will be presented to the Urban Development Strategic Subcommittee, led by Cr. McInnes.

It is expected that this will be the first in a series of white papers developed between the University and SDC, with a full programme of white papers to be confirmed early in the New Year. In addition, a new internship programme, with 7 projects scoped from within SDC's existing Long-term Plan, will be developed and supported by Lincoln University interns. The projects cover various topics and disciplines including Future Selwyn Area Plans – Public Life Study; a review of the policy components of the Delegations of Authority; and support to assess Policy Review and Development Framework.

The New Zealand-China Water Research Centre

Last month, Lincoln University hosted a major international water workshop - the New Zealand-China Water Research Centre Workshop. The event drew over 50 delegates from Aotearoa New Zealand and China, including representatives from MBIE, the Chinese Embassy, and the Chinese Consulate General. As part of an ongoing symposium series funded by MBIE and the Chinese Academy of Sciences, the workshop discussions included water quality and quantity, mitigating water contamination, nitrate leaching, nutrient recycling and waste management.

The New Zealand-China Water Research Centre was formed in 2016 to coordinate and facilitate long-term collaborations between New Zealand and Chinese scientists. These collaborations, which involve a range of organisations, support the development of coherent research in water quality and related areas. Hosted by Lincoln University, the New Zealand-China Water Research Centre partners with AgResearch, Landcare Research, Plant and Food Research, Lincoln Agritech Ltd, and the University of Otago, and is one of three centres funded by MBIE to foster stronger research collaborations between New Zealand and China. Under the leadership of Professor Hong Di, Lincoln University, the centre organises workshops, joint research programmes and hosts visiting scientists and students. The centre aims to enhance Māori engagement with China and elevate New Zealand's global reputation as a leading hub for research and development.

Beijing University of Agriculture

On 18 November, the University hosted a delegation from Beijing University of Agriculture, led by Vice-President Professor Deqiang Zhang. The two universities are collaborating to explore opportunities for student mobility, academic qualifications and research exchanges, focusing on food innovation, wine science and pest management.

International and national conferences focused on the land-based sectors

The 16th International Trichoderma and Gliocladium Workshop was also hosted on campus and attended by 63 delegates from 15 countries. After a welcoming address by the Vice-Chancellor, the three-day event featured five sessions with keynote speakers and oral presentations on topics ranging from genomics, metabolites and microbe/plant interactions to Trichoderma in action. For the last 30 years, there has been a focus on Trichoderma research at Lincoln University and the Faculty of Agriculture and Life Sciences holds a vast number of Trichoderma strains within its collection.

The University also hosted the 31st New Zealand Conference on Microscopy. As Aotearoa New Zealand’s longest-running microscopy and microanalysis conference, the in-person event attracted a significant number of attendees and showcased a wide range of areas across disciplines connected by microscopy and microanalysis.

Lincoln University’s Whenua Haumanu – Regenerative Agriculture Dryland Experiment (RADE) hosted a Field Day on 10 December. RADE, a six-year experiment funded by the Ministry for Primary Industries (MPI), T.R. Ellett Agricultural Research Trust and the Fertiliser Association of New Zealand, compares regenerative and conventional dryland farmlets at two fertility levels (Olsen P 10 and 20), measuring the differences in soil, plant, animal and financial components.

The Field Day showcased the first two years of research. Key speakers presenting included Professor Derrick Moot, Head of the Dryland Pasture Group, on conventional pasture management including lucerne grazing management and establishment; Professor Jim Moir

on soil measurements including phosphorus requirements and fertiliser applications; and Dr Alistair Black on multi-species pasture mixes and regenerative management.

Education and research for the land-based sectors

Three Lincoln University students have been awarded the Government's On Farm Support Science Scholarships to contribute to Aotearoa's primary industries. Georgia Higinbottom, Ashton Robinson and Henry Bartrum were among six recipients of the selected nationwide. Valued at $5,000 each, the scholarships support students pursuing careers in agricultural science, commerce, and other areas vital to the food and fibre sector. Agriculture Minister Todd McClay and Associate Agriculture Minister Andrew Hoggard announced the recipients as part of their commitment to boost on-the-ground support for farmers and growers.

Dedicating her career to minimising the environmental impact of dairy farming, Te Whare Wānaka o Aoraki Lincoln University's Associate Professor Racheal Bryant was awarded the 2024 McMeekan Memorial Award by the New Zealand Society of Animal Production (NZSAP). The McMeekan Memorial Award is in honour of Dr Campbell McMeekan, past President of the NZSAP and distinguished leader in animal production research in New Zealand and the world. Associate Professor Bryant teaches ruminant nutrition and pasture agronomy. She contributes to Lincoln University's research on practical solutions for improving sustainable farm practices, particularly in reducing nitrate leaching.

Lincoln University's commitment to offering flexible, online asynchronous programmes has been recognised with two Platinum Awards at the prestigious LearnX Awards. The University's Online Learning Team won Best EdTech - Blended Learning and Best e-Learning Design - Video. These awards highlight the team's dedication to providing accessible and high-quality education for our students.

Lincoln University's Agribusiness and Economic Research Unit (AERU) will be integrated into the University as a Research Centre within the Faculty of Agribusiness and Commerce. AERU was one of New Zealand's first applied economics consultancies, established in 1962 by the New Zealand Government, with a vision to produce and deliver new knowledge that promotes sustainable wellbeing. The centre's research focuses on economic, resource, environmental and social issues, providing research expertise for a wide range of regional, national and international organisations in the public and private sectors. The move to integrate the AERU into the Faculty will ensure its continued success as a trusted brand within an increasingly constrained funding environment.

AERU, previously co-directed by recently retired Distinguished Professor Caroline Saunders and Professor Paul Dalziel, will become a Lincoln University Research Centre on 1 January 2025, and Professor Alan Renwick will take up the position of Acting Director.

As Vice-Chancellor, it was an honour to present graduation certificates to tamariki from across the Waitaha Canterbury at the 2024 Te Mātāpuna Mātātahi | Children's University graduation ceremonies. This partnership between Te Whare Wānaka o Aoraki Lincoln University and Te Whare Wānanga o Waitaha | University of Canterbury (UC) has seen significant growth since 2019. This year, 1,152 graduates from 48 schools and two rūnanga completed a significant 67,714 hours of extracurricular learning demonstrating the programme's success in fostering a love of lifelong learning and raising aspirations for higher education. The Te Mātāpuna Mātātahi | Children's University programme has become the largest of its kind in Aotearoa New Zealand, and to date, 4,303 tamariki have graduated.

Honours

We are delighted to announce that Caroline Saunders, Distinguished Professor of International Trade and the Environment and former AERU Director, has been awarded the honorary title of Emeritus Professor at Te Whare Wānaka o Aoraki Lincoln University. Furthermore, the honorary title of Emeritus Professor has also been awarded to Professor of Agronomy and former Acting Vice-Chancellor, Bruce McKenzie.

Appointments

Professor Murray Fulton, a renowned expert in agricultural policy, agricultural co-operatives and industrial organisation will be the inaugural Ross Fellow at Lincoln University. Murray is Professor Emeritus at the Johnson Shoyama Graduate School of Public Policy at the University of Saskatchewan.

Professor Fulton will collaborate with researchers on two key projects:

- Indigenous Economic Development: Developing a New Zealand adaptation of a Harvard University project on First Nations case studies.
- Co-operatives and Industrial Organization: Working with faculty, students, and researchers on co-operatives, firm behaviour, and indigenous economic development.

Additionally, he will contribute to teaching and curriculum development in food supply chain economics and indigenous economic development. He will arrive in mid-February for a two-month stay.

Dr Andrew Holyoake has been appointed Acting Director of the Research Management Office (RMO), while the search for a new Director RMO is underway. Professor Travis Glare, the previous RMO Director, has now assumed his new position as CEO of Lincoln Agritech Limited.

Kia ora koutou

Since the last council meeting, both Te Awhioraki and LUSA have completed our respective handovers and we have started in our new roles as Tumuaki Takirua and LUSA President on the 1st of December.

In exciting news SLT endorsed the tri-approval authority (Te Awhioraki, LU, and LUSA) of the Campus Service Council Terms of Reference which is the policy that outlines how the student levy fee is to be set. This is a New Zealand first for a policy of this significance to be co-approved by students and a university.

Te Awhioraki held their first meeting with their 2025 exec, involving discussions of Te Awhioraki's 3 pou for the coming year: Sense of Identity, Engagement and Whanaungatanga. With these focuses in mind, we are currently drafting our strategic plans and calendars for the new year.

Both LUSA and Te Awhioraki are in the process of planning our respective O-weeks. We are also looking at how we can collaborate closer with our counterparts at UC, both UCSA and Te Akatoki. The rejuvenation of the relationship with Te Akatoki is an important step in Te Awhioraki's goal for ongoing development. Progress on this has already begun with an initial hui to kickstart the planning of a collaborative O-week event for Māori and Pasifika students across both institutions – something that we hope will set a positive precedent for the relationship between the two associations going forward.

LUSA has been relatively quiet event-wise as is usual over the summer school period. We did however host the Summer Family Picnic on Friday 6th December which was well received, seeing a lot of our students bring their families for an afternoon of music and fun, as well as an amazing barbeque. We have received great feedback from some of these students, who mentioned they felt very welcomed and that their children had a great time.

I hope you all enjoy the holidays and get some time to relax. Merry Christmas and a Happy New Year.

Ngā mihi
Grace, Zara & Halle

LINCOLN UNIVERSITY
TE WHARE WĀNAKA O AORAKI

Vice-Chancellor's Office

Version:

Management and use of Generative AI at Lincoln University

Contributing Author/s: C Hewitt, M Kawharu, A Holyoake, M Clayton, D Dannenberg, A Sepie, F Taylor, T Glare

SLT Authoriser: Chad Hewitt

Date: 10/12/2024

1. Purpose

To provide Council a briefing on generative AI management and current use at Lincoln University.

2. Content

1. **Appendix 1:** UNESCO. 2023. *Guidance for generative AI in education and research.*
2. **Appendix 2:** Draft LU Generative AI Policy (currently under internal consultation)

3. Recommendations

That Council:

1. Receives the briefing on generative AI management and use at Lincoln University
2. Notes the draft LU Generative AI Policy

4. Executive Summary

The rapid development of publicly available generative Artificial Intelligence (AI) tools are now seen as a significant disruptor potentially leading to transformational change in numerous sectors. In higher education a number of significant opportunities have been identified, however it has also created significant concerns over issues of data privacy and ownership (including challenges of data sovereignty) and academic integrity. The rapidly changing capability of generative AI has demonstrated that generative AI can achieve 'ultra-human' performance particularly in rules-based systems such as games (e.g., chess, go).

Background

Generative AI is machine-learning technology that produces new content based the statistical assessment of large datasets of publicly available information (e.g. websites, social media content, digitized published material) and material submitted by users, to identify common patterns and commonalities. This process typically requires several iterations changing the user prompts to ensure that the outcome is accurate. That said, the output of new text, image and sound is content, but does not generate novelty. This new content is also often inaccurate, particularly at the boundaries of knowledge. Essentially it provides a normative summary of existing material with limited weighting (the most simplistic weighting is based on the frequency of material).

Generative AI tools have been available to researchers since 2018, however the public release of ChatGPT(3) in late 2022 was the first easy to use generative AI tool available to the wider public via an internet interface. Prior to this release, these tools were widely used by industry in marketing and sales based on 'big-data' of consumer behaviours. Presently there are a wide variety of publicly available generative AI tools that generate text, images or sound based on user prompts (see Appendix A - UNESCO report).

Broad concerns with the use of generative AI include ethical and sustainability implications of generative AI. Epistemic and social inequities associated with the overwhelming digital contribution from developed nations primarily in the Global North create a 'swamping' effect for generative AI that limits local relevance and can create outputs that are locally or culturally inappropriate. Additionally, the energy and infrastructure requirements of generative AI result in control from large tech companies from developed economies. This control may exacerbate digital poverty (low or poor data availability) limiting smaller and developing economies from full accessibility to the benefits of generative AI. Generative AI also has numerous sustainability impacts associated with energy consumption and use of rare earth minerals.

Higher education concerns and opportunities

The higher education sector has identified a number of concerns and opportunities. These include the use of generative AI tools to replace the student's work in whole or in part such as in the following:

- for assessments and tests, replacing the students own research and investigation and limiting the ability to assess the student's understanding – a concern is that naïve users may not understand the need for iterative prompts and therefore accept at face value a poor outcome that is superficial2, inaccurate or even harmful without critical engagement;
- for summarizing material to reduce workloads such as reducing the lecture or paper contents into smaller 'high level' syntheses, limiting the opportunity for insight and learning and reducing critical thought;
- for revising language and prompting sentence structure and content substituting for the student voice, limiting the ability to assess the student's understanding and perspective;
- for generating written applications to postgraduate entry, or falsification of documents (e.g., transcripts or testamurs);
- for generating text for dissertations and theses; and
- for generating text for submitted publications.

Lincoln University approach to generative AI

There is a general lack of understanding of generative AI, including all it encompasses within the University. For example, students use Grammarly to help with writing but do not consider it as an AI tool. Both staff and tauira need to understand the generative AI landscape, including how tools can be used effectively for work and learning, precautions to take, and lessons to learn.

Lincoln University is experiencing an increasing use of generative AI in both staff and students. At present we have limited direct information, however the following provide indications:

- the Proctor indicates that the undeclared and inappropriate use of generative AI represents the most common academic integrity breach in 2024 (~10% of all students);

- the use of generative AI as a tool for study appears widespread to aid with summarising and synthesising material to make workloads more tractable;
- A small number of academic staff have engaged with their tauira to develop course or assessment generative AI requirements, or encouraged tauira to use generative AI tools to prepare assessment, and/or used the output from generative AI tools for classroom discussion;
- Generative AI use in applications for admission to PhD appear to be increasing, but is counter to our desire for the applicant to use 'their own words';
- GenAI use is very common for PG students in ideation, copy-editing, synthesis of ideas into 'bins', being the starting point for a topic outside of the candidate's sphere of knowledge, and 'asking the dumb questions' (in areas with a large pool of prior knowledge) to 'avoid having to keep going back to the supervisor';
- Operational Business Units (HR, LTL, ITS, Finance etc.) use of generative AI is very limited, with only a handful of small, formalized programmatic uses underway;
- Following a staff kōrero on *Artificial Intelligence in Learning and Teaching* facilitated by the Centre for Learning and Teaching (CeLT) in January 2023, CeLT has produced the following resources:
    - AI and Chat GPT in Teaching: Opportunities and Challenges
    - Artificial Intelligence (AI) usage in Assessment: Providing guidance for students
    - AI and Assessments: Pros and Cons of using Artificial Intelligence (AI) in your assessments (tauira resource)
    - Generative AI and Chat GPT – guidance on usage, referencing, and declaration/acknowledgement (tauira resource)
    - Appointed an LTL Ambassador to develop resources to demystify AI and show how it can be used in learning and teaching.
- F Jeremiah gave a Centre of Excellence in Transformative Abgribusiness presentation on 31 October 2024 entitled, *Integrating AI into Academic Research: Tools, Tips, and Challenges for Beginners and the Curious*;
- M Kawharu is leading a research project based on generative AI to empower Māori and others by transforming inaccessible archives into easily navigable insights, creating Nation Connect, a world-first Indigenous AI platform.

The University currently has the following generative AI software:

Generative AI and Detection Tools			
Product	System	Status	Description
Turnitin Similarity	Moodle	Enabled	Plagiarism software for academic integrity checking
Turnitin Originality	Moodle	Disabled	Plagiarism software for assisted grading
Perusall	Moodle	Enabled	Annotation tool used for suggestions, scoring responses and reports
Access AI	Panopto	Disabled	Video storage/streaming service for lecture recordings, specifically session summaries and transcription

Elai	Panopto	Disabled	Video storage/streaming service for lecture recordings, specifically generates videos based on audio
Artificial Intelligence	Qualtrics	Disabled	Survey software specifically for the generation, summaries, insights of surveys
AI Assistant	Adobe products	Enabled	Adobe Acrobat reviews documents, answers questions, assists with generating content and questions
Co-Pilot	Microsoft Office 365	Disabled	Generative AI which interprets and responds to user questions
Microsoft Designer	Microsoft Office 366	Enabled	Generative AI which interprets and responds to user questions
ChatGPT (OpenAI) Paid Subscription	Internet	Enabled	Generative AI which interprets and responds to user questions
ChatGPT (OpenAI)	Internet	Enabled	Generative AI which interprets and responds to user questions
Grammarly	Internet	Enabled	Generative AI that is a writing assistant, spelling, grammar, tone, and style
Generative AI products*	Internet	Enabled	There are many generative AI products available for use via access to the internet
Tableau Einstein	Tableau	Enabled	Has been announced, not sure it's available yet within Tableau but it's coming
Geneious Prime	Geneious	Enabled	AI based dna sequencing assistant

Up to now the only guidance on the use of generative AI in Learning and Teaching Assessments has been on the LTL website. It reinforces the responsibility of course examiners to make clear statements of the rule set for the use of generative AI for each assessment and encouraging avoiding blanket-bans.

As a consequence of increasing uncertainty, Lincoln University has now developed a draft policy (Appendix B) under consultation with the wider LU community until late January 2025 that establishes our commitment to the advancement of knowledge and education, and upholding our Te Tiriti o Waitangi commitments, in support of land-based sectors through innovation and partnerships.

Whilst we acknowledge the disruptive nature of generative AI, we also note the potential benefits.

We also acknowledge that generative AI is being rapidly embraced in the global workforce and therefore the University has an obligation to train our graduates in the appropriate use of generative AI tools to ensure they are prepared for the workforce in a fashion that demonstrates academic integrity and ethical awareness and represents the Lincoln University Graduate Profile.

The LU Generative AI Policy will be underpinned by Guidelines (under development) that clarify responsibilities of staff and students and enforce the principles of academic integrity, privacy, leadership and accessibility. These principles are to ensure constructive use in Teaching and Learning, Research and Research Training and in Operations of the University.

The University’s approach therefore highlights the responsibilities of individuals to manage within their remit:

- Researchers and research students must operate with integrity. Where generative AI is used it must be disclosed as a method or in the acknowledgments, noting that some

journals explicitly restrict the use of generative AI in the writing of submitted manuscripts. It is expected that Supervisors will discuss with students the approach and limitations to use of generative AI.

- Course examiners set the terms *for each assessment* whether generative AI (and which definition of generative AI) may or may not be used and how generative AI may be used.
- Students are obligated to operate with academic integrity and honesty, and within the limitations identified by course examiners.
- Professional staff should reflect on and discuss the limitations and restrictions identified in the draft LU Generative AI policy.
- In addition, LTL are developing resources including:
  - Generative AI course policy statements for inclusion in course outlines, on course pages, and in assessment instructions. These are based on three possible positions – permit all use, permit some use, or prohibit use of generative AI. All AI use to be acknowledged.
  - Resources for academic staff focused on increasing confidence with using generative AI tools, understanding how generative AI can be used in the learning and teaching environment, and modifying assessment to focus on process rather than output.
  - Resources for tauira focused on increasing AI literacy, understanding how to use generative AI tools to support learning, critiquing the output, and the risks of using generative AI tools.

A significant challenge with accompanying resource implications will be the obligation of the University to enhance staff and student training in the appropriate and allowable use of generative AI. Professional and academic staff development and training in generative AI literacy including generative AI education in assessment is a critical need. The implications (and risks) associated with privacy regulations and data sovereignty responsibilities are significant, particularly where staff or students may be entering confidential or private information into an external generative AI such as ChatGPT. This requires training, policy updates and guideline development and consideration of software licences where the dataset is locally private (allowing for protected use with data not going back into the public LLM). Matters of equity, particularly in administrative/collaborative contexts in which some parties may be using AI and others not. Undeclared/prohibited use is a threat to equity and data sovereignty.

Lincoln University currently has a number of generative AI tools available to staff and students through existing software licences. Generative AI can be understood as within a continuum of tools (eg Office365, Google, Grammarly, Adobe, Microsoft Assistant all involve some generative AI). Additionally, Turnitin offers AI detection tools; however there are concerns about reliability of software detection tools for both false positives and false negatives, and different tools can return very different results.

5. Resource Implications

Generative AI poses opportunities for improving operational efficiencies in several service areas of the University and should be considered and explored on a case-by-case basis noting the challenges associated with privacy, data sovereignty and rights of natural justice. In the

long-term the use of generative AI is likely to create significant resource benefit, however during the exploration and adoption phases this may result in increased resource needs including both personnel and software.

6. Strategic and Policy Framework Implications

Strategic alignment with priority objective areas in Lincoln University Strategy 2019-2028	Goal 1	A distinctive Aotearoa New Zealand end-to-end student experience	☐
	Goal 2	Improved assets and sustainable operating models	☑
	Goal 3	A culture which stimulates and inspires staff and students	☑
	Goal 4	A world-class research and teaching precinct	☑
	Goal 5	An organisation focussed on meaningful partnerships	☐
	Goal 6	Facilitating Growth	☐

Strategic Alignment

This report supports the Lincoln University Strategy 2019-2028 Update by managing risks and ensuring clarity of University direction for Academic Business Units, staff and students.

Policy Consistency

This decision is consistent with the University's Plans and Policies.

7. Next Steps

- Draft LU Generative AI Policy consultation closes late January 2025, feedback will be considered and the revised draft policy will be brought back to SLT for finalisation.
- Guidelines are under development is support of the policy for Teaching and Learning, Research and Research Training, and Service Units of the University.
- Revisit policies, procedures, regulations and guidelines to ensure generative AI implications are addressed including update of the Codes of Conduct for staff and students.
- Develop a generative AI training strategy for staff and students with an implementation plan and resource requirements for SLT consideration by March 2025.

Appendix 1

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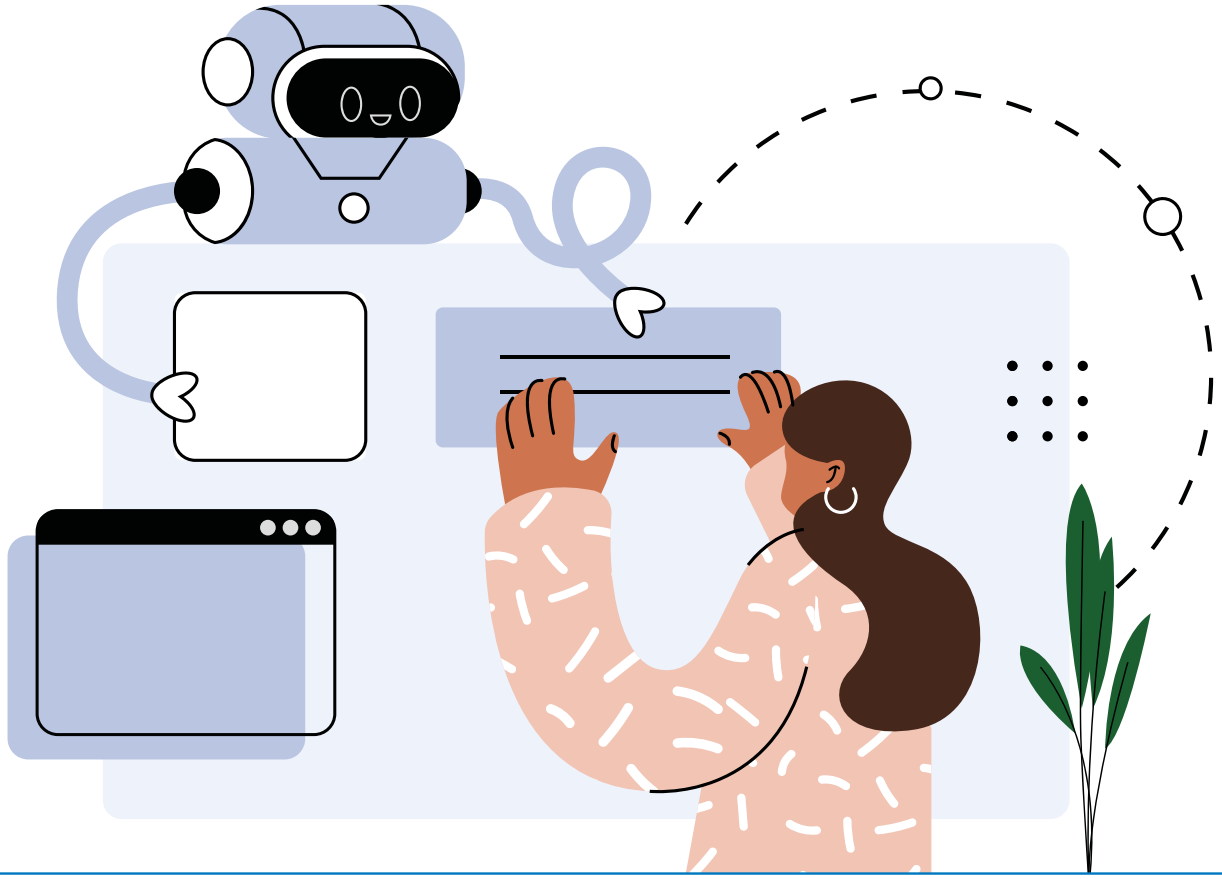
Guidance for generative AI in education and research



Education 2030

UNESCO – a global leader in education

Education is UNESCO's top priority because it is a basic human right and the foundation for peace and sustainable development. UNESCO is the United Nations' specialized agency for education, providing global and regional leadership to drive progress, strengthening the resilience and capacity of national systems to serve all learners. UNESCO also leads efforts to respond to contemporary global challenges through transformative learning, with special focus on gender equality and Africa across all actions.

The Global Education 2030 Agenda

UNESCO, as the United Nations' specialized agency for education, is entrusted to lead and coordinate the Education 2030 Agenda, which is part of a global movement to eradicate poverty through 17 Sustainable Development Goals by 2030. Education, essential to achieve all of these goals, has its own dedicated Goal 4, which aims to ***"ensure inclusive and equitable quality education and promote lifelong learning opportunities for all."*** The Education 2030 Framework for Action provides guidance for the implementation of this ambitious goal and commitments.

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Educational, Scientific
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SHORT SUMMARY

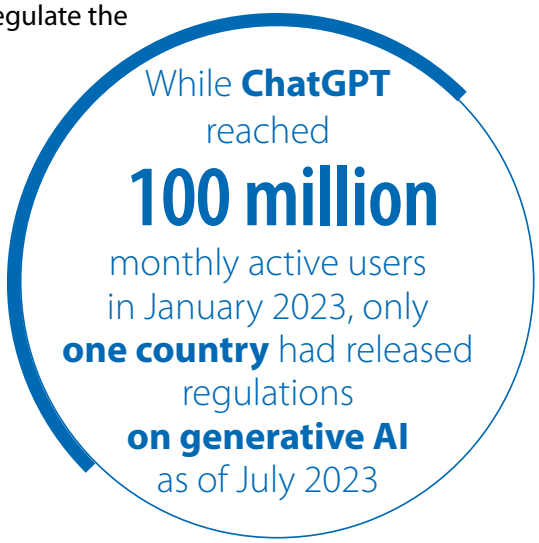
Towards a human-centred approach to the use of generative AI

Publicly available generative AI (GenAI) tools are rapidly emerging, and the release of iterative versions is outpacing the adaptation of national regulatory frameworks. The absence of national regulations on GenAI in most countries leaves the data privacy of users unprotected and educational institutions largely unprepared to validate the tools.

UNESCO's first global guidance on GenAI in education aims to support countries to implement immediate actions, plan long-term policies and develop human capacity to ensure a human-centred vision of these new technologies.

The Guidance presents an assessment of potential risks GenAI could pose to core humanistic values that promote human agency, inclusion, equity, gender equality, and linguistic and cultural diversities, as well as plural opinions and expressions.

It proposes key steps for governmental agencies to regulate the use of GenAI tools including mandating the protection of data privacy and considering an age limit for their use. It outlines requirements for GenAI providers to enable their ethical and effective use in education.



The Guidance stresses the need for educational institutions to validate GenAI systems on their ethical and pedagogical appropriateness for education. It calls on the international community to reflect on their long-term implications for knowledge, teaching, learning and assessment.

The publication offers concrete recommendations for policy-makers and educational institutions on how the uses of GenAI tools can be designed to protect human agency and genuinely benefit learners, teachers and researchers.

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"Since wars begin in the minds of men and women it is in the minds of men and women that the defences of peace must be constructed"

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Guidance for generative AI in education and research

Foreword

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Generative artificial intelligence (GenAI) burst into the public awareness in late 2022 with the launch of ChatGPT, which became the fastest growing app in history. With the power to imitate human capabilities to produce outputs such as text, images, videos, music and software codes, these GenAI applications have caused a stir. Millions of people are now using GenAI in their daily lives and the potential of adapting the models to domain-specific AI applications seems unlimited.

Such wide-ranging capacities for information processing and knowledge production have potentially huge implications for education, as they replicate the higher-order thinking that constitutes the foundation of human learning. As GenAI tools are increasingly able to automate some basic levels of writing and artwork creation, they are forcing education policy-makers and institutions to revisit why, what and how we learn. These are now critical considerations for education in this new phase of the digital era.

This publication aims to support the planning of appropriate regulations, policies and human capacity development, to ensure that GenAI becomes a tool that genuinely benefits and empowers teachers, learners and researchers.

It proposes key steps for governmental agencies to regulate the use of generative AI. It also presents frameworks and concrete examples for policy formulation and instructional design that enable ethical and effective uses of this technology in education. Finally, it calls on the international community to consider the profound longer-term implications of generative AI for how we understand knowledge and define learning content, methods and outcomes, as well as the way in which we assess and validate learning.

Building on UNESCO's 2021 *Recommendation on the Ethics of Artificial Intelligence*, the guidance is anchored in a humanistic approach to education that promotes human agency, inclusion, equity, gender equality, and cultural and linguistic diversity, as well as plural opinions and expressions. Furthermore, it responds to the call of the 2021 report of the International Commission on the Futures of Education, *Reimagining our futures together: A new social contract for education* to redefine our relationship with technology, as an integral part of our efforts to renew the social contract for education.

AI must not usurp human intelligence. Rather, it invites us to reconsider our established understandings of knowledge and human learning. It is my hope that this guidance will help us redefine new horizons for education and inform our collective thinking and collaborative actions that can lead to human-centred digital learning futures for all.

Stefania Giannini,
UNESCO Assistant Director-General for Education

Acknowledgements

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List of acronyms and abbreviations

Concepts and technologies

AGI	Artificial general intelligence
AI	Artificial intelligence
API	Application programming interface
ANN	Artificial neural network
DAI	Distributed artificial intelligence
GAN	Generative adversarial networks
GB	Gigabytes
GDPR	General Data Protection Regulation
GenAI	Generative artificial intelligence
GPT	Generative pre-trained transformer
ICT	Information and communication technology
LaMDA	Language model for dialogue applications
LLM	Large language model
ML	Machine learning
VAE	Variational autoencoders

Organizations

AGCC	AI Government Cloud Cluster (Singapore)
CAC	Cyberspace Administration of China
EU	European Union
OECD	Organisation for Economic Co-operation and Development
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization

Introduction

The release of ChatGPT in late 2022, the first easy-to-use generative artificial intelligence (GenAI) tool made widely available to the public,[1] followed by iteratively more sophisticated versions, sent shock waves worldwide, and is fuelling the race among large technology companies to position themselves in the field of GenAI model development.[2]

Across the world, the initial concern in education was that ChatGPT and similar GenAI tools would be used by students to cheat on their assignments, thus undermining the value of learning assessment, certification and qualifications (Anders, 2023). While some educational institutions banned the use of ChatGPT, others cautiously welcomed the arrival of GenAI (Tlili, 2023). Many schools and universities, for instance, adopted a progressive approach believing that 'rather than seek to prohibit their use, students and staff need to be supported in using GenAI tools effectively, ethically and transparently' (Russell Group, 2023). This approach acknowledges that GenAI is widely available, is likely only to become more sophisticated, and has both specific negative and unique positive potential for education.

Indeed, GenAI has a myriad of possible uses. It can automate information processing and the presentation of outputs across all key symbolic representations of human thinking. It enables the delivery of final outputs by furnishing semi-finished knowledge products. By freeing humans from some categories of lower-order thinking skills, this new generation of AI tools might have profound implications for how we understand human intelligence and learning.

But GenAI also raises multiple immediate concerns related to issues such as safety, data privacy, copyright, and manipulation. Some of these are broader risks related to artificial intelligence that have been further exacerbated by GenAI, while others have newly emerged with this latest generation of tools. It is now urgent that each of these issues and concerns be fully understood and addressed.

This Guidance is designed to respond to this urgent need. However, a thematic set of guidance on GenAI for education should not be understood as a claim that GenAI is the solution to education's fundamental challenges. Despite the media hyperbole, it is unlikely that GenAI alone will solve any of the problems facing education systems around the world. In responding to long-standing educational issues, it is key to uphold the idea that human capacity and collective action, and not technology, is the determining factor in effective solutions to fundamental challenges faced by societies.

This Guidance therefore aims to support the planning of appropriate regulations, policies and human capacity development programmes, to ensure that GenAI becomes a tool that genuinely benefits and empowers teachers, learners and researchers. Building on UNESCO's *Recommendation on the Ethics of Artificial Intelligence*, the Guidance is anchored in a human-centred approach that promotes human agency, inclusion, equity, gender equality, and cultural and linguistic diversity, as well as plural opinions and expressions.

The Guidance first looks into what GenAI is and how it works, presenting the diverse technologies and models available (Section 1), before identifying a range of controversial ethical and policy issues around both AI in general, and GenAI specifically (Section 2). This is followed by a discussion of the steps and key elements to be examined when seeking to regulate GenAI based on a human-centred approach – one that ensures ethical, safe, equitable and meaningful use (Section 3). Section 4 then proposes measures that can be taken to develop coherent, comprehensive policy frameworks to regulate the use of GenAI in education and research, while Section 5 looks into the possibilities for creatively using GenAI in curriculum design, teaching, learning and research activities. Section 6 concludes the Guidance with considerations around the long-term implications of GenAI for education and research.

1. What is generative AI and how does it work?

1.1 What is generative AI?

Generative AI (GenAI) is an artificial intelligence (AI) technology that automatically generates content in response to prompts written in natural-language conversational interfaces. Rather than simply curating existing webpages, by drawing on existing content, GenAI actually produces new content. The content can appear in formats that comprise all symbolic representations of human thinking: texts written in natural language, images (including photographs, digital paintings and cartoons), videos, music and software code. GenAI is trained using data collected from webpages, social media conversations and other online media. It generates its content by statistically analysing the distributions of words, pixels or other elements in the data that it has ingested and identifying and repeating common patterns (for example, which words typically follow which other words).

While GenAI can produce new content, it cannot generate new ideas or solutions to real-world challenges, as it does not understand real-world objects or social relations that underpin language. Moreover, despite its fluent and impressive output, GenAI cannot be trusted to be accurate. Indeed, even the provider of ChatGPT acknowledges, 'While tools like ChatGPT can often generate answers that sound reasonable, they cannot be relied upon to be accurate.' (OpenAI, 2023). Most often, the errors will go unnoticed unless the user has a solid knowledge of the topic in question.

1.2 How does generative AI works?

The specific technologies behind GenAI are part of the family of AI technologies called machine learning (ML) which uses algorithms to enable it to continuously and automatically improve its performance from data. The type of ML which has led to many of the advances in AI that we have seen in recent years, such as the use of AI for facial recognition, is known as artificial neural networks (ANNs), which are inspired by how the human brain works and its synaptic connections between neurons. There are many types of ANNs.

Both text and image generative AI technologies are based on a set of AI technologies that have been available to researchers for several years.[1] ChatGPT, for instance, uses a generative pre-trained transformer (GPT), while image GenAI typically uses what are known as generative adversarial networks (GANs) (see **Table 1**).[3]

Table 1. Techniques used in generative AI

Machine learning (ML)		A type of AI that uses data to automatically improve its performance.
Artificial neural network (ANN)		A type of ML that is inspired by the structure and functioning of the human brain (e.g. the synaptic connections between neurons).
Text generative AI	**General-purpose transformers**	A type of ANN that is capable of focusing on different parts of data to determine how they relate to each other
	Large language models (LLM)	A type of general-purpose transformer that is trained on vast amounts of text data.
	Generative pre-trained transformer (GPT)[4]	A type of LLM that is pre-trained on even larger amounts of data, which allows the model to capture the nuances of language and generate coherent context-aware text.
Image generative AI	**Generative adversarial networks (GANs)**	Types of neural network used for image generation.
	Variational autoencoders (VAEs)	

1.2.1. How text GenAI models work

Text generative AI uses a type of ANN known as a general-purpose transformer, and a type of general-purpose transformer called a large language model. This is why AI Text GenAI systems are often referred to as large language models, or LLMs. The type of LLM used by text GenAI is known as a generative pre-trained transformer, or GPT (hence the 'GPT' in 'ChatGPT').

ChatGPT is built on GPT-3 which was developed by OpenAI. This was the third iteration of their GPT, the first being launched in 2018 and the most recent, GPT-4, in March 2023 (see **Table 2**). Each OpenAI GPT iteratively improved upon the previous through advances in AI architectures, training methods and optimization techniques. One well-known facet of its continuous progress is the use of growing amounts of data to train its exponentially increasing number of 'parameters'. Parameters might be thought of as metaphorical knobs that can be adjusted to fine-tune the GPT's performance. They include the model's 'weights', numerical parameters that determine how the model processes input and produces output.

In addition to the advancements in optimizing AI architectures and training methods, this rapid iteration has been made possible also due to the massive amounts of data[5] and improvements in computing capabilities available to the big companies. Since 2012, computing capabilities used for training GenAI models have been doubling every 3-4 months. By comparison, Moore's Law had a two-year doubling period (OpenAI, 2018; Stanford University, 2019).

Table 2. OpenAI GPTs

Model	Launched	Amount of training data	Number of parameters	Characteristics
GPT-1	2018	40 GB	117 million	Capable of natural-language-processing tasks such as completing texts and answering questions.
GPT-2	2019	40 GB	1,500 million	Capable of more complex natural-language-processing tasks such as machine translation and summarizing.
GPT-3	2020	17,000 GB	175,000 million	Capable of advanced natural-language-processing tasks such as writing coherent paragraphs and generating entire articles. Also capable of adapting to new tasks with just a few examples.
GPT-4[6]	2023	1,000,000 GB (reported but not confirmed)	170,000,000 million (reported but not confirmed)	Enhanced reliability and is capable of processing more complex instructions.

Once the GPT has been trained, generating a text response to a prompt involves the following steps:

1. The prompt is broken down into smaller units (called tokens) that are inputted into the GPT.
2. The GPT uses statistical patterns to predict likely words or phrases that might form a coherent response to the prompt.
   - The GPT identifies patterns of words and phrases that commonly co-occur in its prebuilt large data model (which comprises text scraped from the internet and elsewhere).
   - Using these patterns, the GPT estimates the probability of specific words or phrases appearing in a given context.
   - Beginning with a random prediction, the GPT uses these estimated probabilities to predict the next likely word or phrase in its response.
3. The predicted words or phrases are converted into readable text.
4. The readable text is filtered through what are known as 'guardrails' to remove any offensive content.
5. Steps 2 to 4 are repeated until a response is finished. The response is considered finished when it reaches a maximum token limit or meets predefined stopping criteria.

6. The response is post-processed to improve readability by applying formatting, punctuation and other enhancements (such as beginning the response with words that a human might use, such as 'Sure', 'Certainly' or 'I'm sorry').

While GPTs and their ability to automatically generate text have been available to researchers since 2018, what made the launch of ChatGPT so novel was its free access via an easy-to-use interface, meaning that anyone with internet access could explore the tool. The launch of ChatGPT set off shock waves around the world, and quickly led to other global tech companies playing catch-up, alongside numerous start-up companies, either by launching their own similar systems or by building new tools on top.

By July 2023, some of the alternatives to ChatGPT included the following:

- **Alpaca:**[7] A fine-tuned version of Meta's Llama, from Stanford University, which aims to address LLMs' false information, social stereotypes and toxic language.
- **Bard:**[8] An LLM from Google, based on its LaMDA and PaLM 2 systems, that has access to the internet in real time, which means it can provide up-to-date information.
- **Chatsonic:**[9] Made by Writesonic, it builds on ChatGPT while also crawling data directly from Google. Accordingly, it has less chance of producing factually incorrect answers.
- **Ernie** (also known as **Wenxin Yiyan** 文心一言):[10] A bilingual LLM from Baidu, still in development, which integrates extensive knowledge with massive datasets to generate text and images.
- **Hugging Chat:**[11] Made by Hugging Face, who emphasized ethics and transparency throughout its development, training and deployment. In addition, all data used to train their models are open source.
- **Jasper:**[12] A suite of tools and APIs that, for example, can be trained to write in a user's particular preferred style. It can also generate images.
- **Llama:**[13] An open-source LLM from Meta that requires less computing power and fewer resources to test new approaches, validate others' work and explore new use cases.
- **Open Assistant:**[14] An open-source approach designed to enable anyone with sufficient expertise to develop their own LLM. It was built on training data curated by volunteers.
- **Tongyi Qianwen** (通义千问):[15] An LLM from Alibaba that can respond to prompts in English or Chinese. It is being integrated into Alibaba's suite of business tools.
- **YouChat:**[16] An LLM that incorporates real-time search capabilities to provide additional context and insights in order to generate more accurate and reliable results.

Most of these are free to use (within certain limits), while some are open-source. Many other products are being launched that are based one of these LLMs. Examples include the following:

- **ChatPDF:**[17] Summarizes and answers questions about submitted PDF documents.
- **Elicit: The AI Research Assistant:**[18] Aims to automate parts of researchers' workflows, identifying relevant papers and summarizing key information.
- **Perplexity:**[19] Provides a 'knowledge hub' for people seeking quick, accurate answers tailored to their needs.

Similarly, LLM-based tools are being embedded into other products, such as web browsers. For example, extensions for the Chrome browser that are built on ChatGPT include the following:

- **WebChatGPT:**[20] Gives ChatGPT internet access to enable more accurate and up-to-date conversations.
- **Compose AI:**[21] Autocompletes sentences in emails and elsewhere.
- **TeamSmart AI:**[22] Provides a 'team of virtual assistants'.
- **Wiseone:**[23] Simplifies online information.

In addition, ChatGPT has been incorporated into some search engines,[24] and is being implemented across large portfolios of productivity tools (e.g. Microsoft Word and Excel), making it even more available in offices and educational institutions worldwide (Murphy Kelly, 2023).

Finally, as an interesting transition to image GenAI, the most recent GPT from OpenAI, GPT-4, is able to accept images as well as text in its prompts. In this sense, it is multimodal. Accordingly, some argue that the name 'large language model' (LLM) is becoming less appropriate, which is one reason why researchers at Stanford University have proposed the term 'foundation model' (Bommasani et al., 2021). This alternative is yet to be widely adopted.

1.2.2. How image GenAI models work

Image GenAI and music GenAI typically use a different type of ANN known as generative adversarial networks (GANs) which can also be combined with variational autoencoders. Some image GenAI models like Dall·E and Stable Diffusion use Diffusion Models, a different generative ANN. Taking GANs as example to explain how image GenAI models work: GANs have two parts (two 'adversaries'), the 'generator' and the 'discriminator'. In the case of image GANs, the generator creates a random image in response to a prompt, and the discriminator tries to distinguish between this generated image and real images. The generator then uses the result of the discriminator to adjust its parameters, in order to create another image. The process is repeated, possibly thousands of times, with the generator making more and more realistic images that the discriminator is less and less able to distinguish from real images. For example, a successful GAN trained on a dataset of thousands of landscape photographs might generate new but unreal images of landscapes that are almost indistinguishable from real photographs. Meanwhile, a GAN trained on a dataset of popular music (or even music by a single artist) might generate new pieces of music that follow the structure and complexity of the original music.

As of July 2023, the **image GenAI** models that are available include the following, all of which generate images from text prompts. Most are free to use, within certain limits:

- **Craiyon:**[25] Previously known as DALL·E mini.
- **DALL·E 2:**[26] OpenAI's image GenAI tool.
- **DreamStudio:**[27] Stable Diffusion's image GenAI tool.
- **Fotor:**[28] Incorporates GenAI in a range of image-editing tools.
- **Midjourney:**[29] An independent image GenAI tool.
- **NightCafe:**[30] Interface to Stable Diffusion and DALL·E 2.
- **Photosonic:**[31] WriteSonic's AI art generator.

Examples of easy-to-access **video GenAI** include the following:

- **Elai:**[32] Can convert presentations, websites and text into videos.
- **GliaCloud:**[33] Can generate videos from news content, social media posts, live sporting events and statistical data.
- **Pictory:**[34] Can automatically create short videos from long-form content.
- **Runway:**[35] Offers a range of video (and imaging) generation and editing tools.

Finally, these are some examples of easy-to-access **music GenAI**:

- **Aiva:**[36] Can automatically create personalized soundtracks.
- **Boomy,**[37] **Soundraw,**[38] **and Voicemod:**[39] Can generate songs from any text, and require no musical composition knowledge.

1.3 Prompt-engineering to generate desired outputs

While using GenAI can be as simple as typing in a question or other prompt, the reality is that it is still not straightforward for the user to get exactly the output that they want. For example, the breakthrough AI image *Théâtre D'opéra Spatial* which won a prize at the Colorado State Fair in the United States of America, took weeks of writing prompts and fine-tuning hundreds of images in order to generate the final submission (Roose, 2022). The similar challenge of writing effective prompts for text GenAI has led to an increasing number of prompt-engineering jobs appearing on recruitment websites (Popli, 2023). 'Prompt-engineering' refers to the processes and techniques for composing input to produce GenAI output that more closely resembles the user's desired intent.

Prompt-engineering is most successful when the prompt articulates a coherent chain of reasoning centred on a particular problem or a chain of thought in a logical order. Specific recommendations include:

- Use **simple**, clear and straightforward language that can be easily understood, avoiding complex or ambiguous wording.
- Include **examples** to illustrate the desired response or format of generated completions.
- Include **context**, which is crucial for generating relevant and meaningful completions.
- **Refine** and iterate as necessary, experimenting with different variations.
- Be **ethical**, avoiding prompts that may generate inappropriate, biased or harmful content.

It is also important to recognize immediately that GenAI outputs cannot be relied upon without critical evaluation. As OpenAI write about their most sophisticated GPT:[40]

> **Despite its capabilities, GPT-4 has similar limitations as earlier GPT models. Most importantly, it still is not fully reliable (it 'hallucinates' facts and makes reasoning errors). Great care should be taken when using language model outputs, particularly in high-stakes contexts, with the exact protocol (such as human review, grounding with additional context, or avoiding high-stakes uses altogether) matching the needs of a specific use-case.'**

Implications for education and research

While GenAI might help teachers and researchers generate useful text and other outputs to support their work, it is not necessarily a straightforward process. It can take multiple iterations of a prompt before the desired output is achieved. A worry is that young learners, because they are by definition less expert than teachers, might unknowingly and without critical engagement accept GenAI output that is superficial, inaccurate or even harmful.

In light of the quality of GenAI's outputs, rigorous user tests and performance evaluations should be conducted before validating the tools for large-scale or high-stakes adoption. Such exercises should be designed with a performance metric that is most relevant to the type of task for which users ask GenAI to provide outputs. For example, for solving math problems, 'accuracy' could be used as the main metric to quantify how often a GenAI tool produces the correct answer; for responding to sensitive questions, the main metric to measure performance might be 'answer rate' (the frequency with which the GenAI directly answers a question); for code generation, the metric may be 'the fraction of the generated codes that are directly executable' (whether the generated code could be directly executed in a programming environment and pass the unit tests); and for visual reasoning, the metric could be 'exact match' (whether the generated visual objects exactly match the ground truth) (Chen et al., 2023).

In summary, at a superficial level, GenAI is easy to use; however, more sophisticated outputs need skilled human input and must be critically evaluated before they are used.

1.4 Emerging EdGPT and its implications

Given that GenAI models can serve as the basis or starting point for developing more specialized or domain-specific models, some researchers have suggested that GPTs should be renamed 'foundation models' (Bommasani et al., 2021). In education, developers and researchers have started to fine-tune a foundation model to develop 'EdGPT'.[41] EdGPT models are trained with specific data to serve educational purposes. In other words, EdGPT aims to refine the model that has been derived from massive amounts of general training data with smaller amounts of high-quality, domain-specific education data.

This potentially gives EdGPT more scope to support the achievement of the transformations listed in Section 4.3. For example, EdGPT models targeting curriculum co-design may allow educators and learners to generate appropriate educational materials such as lesson plans, quizzes and interactive activities that closely align with an effective pedagogical approach and specific curricular objectives and levels of challenge for particular learners. Similarly, in the context of a 1:1 language skills coach, a foundation model refined with texts appropriate for a particular language might be used to generate exemplar sentences, paragraphs or conversations for practice. When learners interact with the model, it can respond with relevant and grammatically accurate text at the right level for them. Theoretically, the outputs of EdGPT models could also contain fewer general biases or otherwise objectionable content than standard GPT, but still might generate errors. It is critical to note that, unless the underlying GenAI models and approach change significantly, EdGPT may still generate errors and demonstrate other limitations. Accordingly, it is still important that the main users of EdGPT, especially teachers and learners, need to take a critical perspective to any outputs.

Currently, the refining of foundation models for more targeted use of GPT in education is at an early stage. Existing examples include EduChat, a foundation model developed by East China Normal University to provide services for teaching and learning, and whose codes, data and parameters are shared as open source.[42] Another example is MathGPT being developed by the TAL Education Group – a LLM that focuses on mathematics-related problem-solving and lecturing for users worldwide.[43]

However, before significant progress is possible, it is essential that efforts are put into refining foundation models not only through adding subject knowledge and de-biasing, but also through adding knowledge about relevant learning methods, and how this can be reflected in the design of algorithms and models. The challenge is to determine the extent to which EdGPT models can go beyond subject knowledge to also target student-centred pedagogy and positive teacher-student interactions. The further challenge is to determine the extent to which learner and teacher data may ethically be collected and used in order to inform an EdGPT. Finally, there is also a need for robust research to ensure that EdGPT does not undermine students' human rights nor disempower teachers.

2. Controversies around generative AI and their implications for education

Having previously discussed what GenAI is and how it works, this section examines controversies and ethical risks raised by all GenAI systems and considers some of the implications for education.

2.1 Worsening digital poverty

As noted earlier, GenAI relies upon huge amounts of data and massive computing power in addition to its iterative innovations in AI architectures and training methods, which are mostly only available to the largest international technology companies and a few economies (mostly the United States, People's Republic of China, and to a lesser extent Europe). This means that the possibility to create and control GenAI is out of reach of most companies and most countries, especially those in the Global South.

As access to data becomes increasingly essential for the economic development of countries and for the digital opportunities of individuals, those countries and people who do not have access to or cannot afford enough data are left in a situation of 'data poverty' (Marwala, 2023). The situation is similar for access to computing power. The rapid pervasion of GenAI in technologically advanced countries and regions has accelerated exponentially the generation and processing of data, and has simultaneously intensified the concentration of AI wealth in the Global North. As an immediate consequence, the data-poor regions have been further excluded and put at long-term risk of being colonized by the standards embedded in the GPT models. The current ChatGPT models are trained on data from online users which reflect the values and norms of the Global North, making them inappropriate for locally relevant AI algorithms in data-poor communities in many parts of the Global South or in more disadvantaged communities in the Global North.

Implications for education and research

Researchers, teachers and learners should take a critical view of the value orientations, cultural standards and social customs embedded in GenAI training models. Policy-makers should be aware of and take action to address the worsening of inequities caused by the widening divide in training and controlling GenAI models.

2.2 Outpacing national regulatory adaptation

Dominant GenAI providers have also been criticized for not allowing their systems to be subject to rigorous independent academic review (Dwivedi et al., 2023).[44] The foundational technologies of a company's GenAI tend to be protected as corporate intellectual property. Meanwhile many of the companies that are starting to use GenAI are finding it increasingly challenging to maintain the security of their systems (Lin, 2023). Moreover, despite calls for regulation from the AI industry itself,[45] the drafting of legislation on the creation and use of all AI, including GenAI, often lags behind the rapid pace of development. This partly explains the challenges experienced by national or local agencies in understanding and governing the legal and ethical issues.[46]

While GenAI may augment human capacities in completing certain tasks, there is limited democratic control of the companies that are promoting GenAI. This raises the question of regulations, in particular in respect of access to, and use of, domestic data including data on local institutions and individuals as well as data generated on the countries' territory. Appropriate legislation is needed so that local governmental agencies may gain some control over the surging waves of GenAI to ensure its governance as a public good.

Implications for education and research

Researchers, teachers and learners should be aware of the lack of appropriate regulations to protect the ownership of domestic institutions and individuals and the rights of domestic users of GenAI, and to respond to legislative issues triggered by GenAI.

2.3 Use of content without consent

As noted earlier, GenAI models are built from large amounts of data (e.g. text, sounds, code and images) often scraped from the internet and usually without any owner's permission. Many image GenAI systems and some code GenAI systems have consequently been accused of violating intellectual property rights. At the time of writing, there are several ongoing international legal cases that relate to this issue.

Furthermore, some have pointed out that GPTs may contravene laws such as the European Union's (2016) General Data Protection Regulation or GDPR, especially people's right to be forgotten, as it is currently impossible to remove someone's data (or the results of that data) from a GPT model once it has been trained.

Implications for education and research

- Researchers, teachers and learners need to know the rights of data owners and should check whether the GenAI tools they are using contravene any existing regulations.
- Researchers, teachers and learners should also be aware that the images or codes created with GenAI might violate someone else's intellectual property rights, and that images, sounds or code that they create and share on the internet might be exploited by other GenAI.

2.4 Unexplainable models used to generate outputs

It has long been recognized that artificial neural networks (ANNs) are usually 'black boxes'; that is, that their inner workings are not open to inspection. As a result, ANNs are not 'transparent' or 'explainable', and it is not possible to ascertain how their outputs were determined.

While the overall approach, including the algorithms used, is generally explainable, the particular models and their parameters, including the model's weights, are not inspectable, which is why a specific output that is generated cannot be explained. There are billions of parameters/weights in a model like GPT-4 (see **Table 2**) and it is the weights collectively that hold the learned patterns that the model uses to generate its outputs. As parameters/weights are not transparent in ANNs (**Table 1**), one cannot explain the precise way a specific output is created by these models.

GenAI's lack of transparency and explainability is increasingly problematic as GenAI becomes ever more complex (see **Table 2**), often producing unexpected or undesired results. In addition, GenAI models inherit and perpetuate biases present in their training data which, given the non-transparent nature of the models, are hard to detect and address. Finally, this opacity is also a key cause of trust issues around GenAI (Nazaretsky et al., 2022*a*). If users don't understand how a GenAI system arrived at a specific output, they are less likely to be willing to adopt it or use it (Nazaretsky et al., 2022*b*).

Implications for education and research

Researchers, teachers and learners should be aware that GenAI systems operate as black boxes and that it is consequently difficult, if not impossible, to know why particular content has been created. A lack of explanation of how the outputs are generated tends to lock users in the logic defined by parameters designed in the GenAI systems. These parameters may reflect specific cultural or commercial values and norms that implicitly bias the content produced.

2.5 AI-generated content polluting the internet

Because GPT training data is typically drawn from the internet, which all too frequently includes discriminatory and other unacceptable language, developers have had to implement what they call 'guardrails' to prevent GPT output from being offensive and/or unethical. However, due to the absence of strict regulations and effective monitoring mechanisms, biased materials generated by GenAI are increasingly spreading throughout the internet, polluting one of the main sources of content or knowledge for most learners across the world. This is especially important because the material generated by GenAI can appear to be quite accurate and convincing, when often it contains errors and biased ideas. This poses a high risk for young learners who do not have solid prior knowledge of the topic in question. It also poses a recursive risk for future GPT models that will be trained on text scraped from the Internet that GPT models have themselves created which also include their biases and errors.

Implications for education and research

- Researchers, teachers and learners need to be aware that GenAI systems are capable of outputting offensive and unethical materials.
- They also need to know about the long-term issues that will potentially arise for the reliability of knowledge when future GPT models are based on text that previous GPT models have generated.

2.6 Lack of understanding of the real world

Text GPTs are sometimes pejoratively referred to as 'stochastic parrots' because, as has been noted earlier, while they can produce text that appears convincing, that text often contains errors and can include harmful statements (Bender et al., 2021). This all occurs because GPTs only repeat language patterns found in their training data (usually text drawn from the internet), starting with random (or 'stochastic') patterns, and without understanding their meaning – just as a parrot can mimic sounds without actually comprehending what it is saying.

The disconnect between GenAI models 'appearing' to understand the text that they use and generate, and the 'reality' that they do not understand the language and the real world can lead teachers and students to place a level of trust in the output that it does not warrant. This poses serious risks for future education. Indeed, GenAI is not informed by observations of the real world or other key aspects of the scientific method, nor is it aligned with human or social values. For these reasons, it cannot generate genuinely novel content about the real world, objects and their relations, people and social relations, human-object relations, or human-tech relations. Whether the apparently novel content generated by GenAI models can be recognized as scientific knowledge is contested.

As already noted, GPTs can frequently produce inaccurate or unreliable text. In fact, it is well known that GPTs make up some things that do not exist in real life. Some call this 'hallucination', although others criticize the use of such an anthropomorphic and therefore misleading term. This is acknowledged by the companies producing GenAI. The bottom of the ChatGPT public interface, for instance, states: 'ChatGPT may produce inaccurate information about people, places, or facts'.[2]

It has also been suggested by a few advocates that GenAI represents a significant step in the journey towards artificial general intelligence (AGI), a term suggesting a class of AI that is more intelligent than humans. However, this has long been critiqued, with the argument that AI will never progress towards AGI at least until it in some way brings together, in symbiosis, both knowledge-based AI (also known as symbolic or rule-based AI) and data-based AI (also known as machine learning) (Marcus, 2022). The AGI or sentience claims also distract us from more careful consideration of current harms being perpetrated with AI, such as hidden discrimination against already discriminated-against groups (Metz, 2021).

Implications for education and research

- The output of a text GenAI can look impressively human-like, as if it understood the text that it generated. However, GenAI does not understand anything. Instead, these tools string words together in ways that are common on the internet. The text that is generated can also be incorrect.
- Researchers, teachers and learners need to be aware that a GPT does not understand the text that it generates; that it can, and often does, generate incorrect statements; and that they therefore need to take a critical approach to everything that it does generate.

2.7 Reducing the diversity of opinions and further marginalizing already marginalized voices

ChatGPT and similar such tools tend to output only standard answers that assume the values of the owners/creators of the data used to train the models. Indeed, if a sequence of words appears frequently in the training data – as is the case with common and uncontroversial topics and mainstream or dominant beliefs – it is likely to be repeated by the GPT in its output.

This risks constraining and undermining the development of plural opinions and plural expressions of ideas. Data-poor populations, including marginalized communities in the Global North, have minimal or limited digital presence online. Their voices are consequently not being heard and their concerns are not represented in the data being used to train GPTs, and so rarely appear in the outputs. For these reasons, given the pre-training methodology based on data from internet web pages and social media conversations, GPT models can further marginalize already disadvantaged people.

Implications for education and research

- While the developers and providers of GenAI models have the primary responsibility for continuously addressing biases in the datasets and outputs of these models, the user-side researchers, teachers and learners need to know that the output of text GenAI represents only the most common or dominant view of the world at the time when its training data was produced and that some of it is problematic or biased (e.g. stereotypical gender roles).
- Learners, teachers and researchers should never accept the information provided by the GenAI at face value and should always critically assess it.
- Researchers, teachers and learners also must be aware of how minority voices can be left out, because minority voices are by definition less common in the training data.

2.8 Generating deeper deepfakes

In addition to the controversies common to all GenAI, GAN GenAI can be used to alter or manipulate existing images or videos to generate fake ones that are difficult to distinguish from real ones. GenAI is making it increasingly easy to create these 'deepfakes' and so-called 'fake news'. In other words, GenAI is making it easier for certain actors to commit unethical, immoral and criminal acts, such as spreading disinformation, promoting hate speech and incorporating the faces of people, without their knowledge or consent, into entirely fake and sometimes compromising films.

Implications for education and research

While it is the obligation of GenAI providers to protect the copyright and portrait rights of users, researchers, teachers and learners also need to be aware that any images they share on the internet may be incorporated into GenAI training data and might be manipulated and used in unethical ways.

3. Regulating the use of generative AI in education

In order to address the controversies around generative AI and to harness the potential benefits of GenAI in education, it first needs to be regulated. Regulation of GenAI for educational purposes requires a number of steps and policy measures based on a human-centred approach to ensure its ethical, safe, equitable and meaningful use.

3.1 A human-centred approach to AI

UNESCO's 2021 *Recommendation on the Ethics of Artificial Intelligence* provides the requisite normative framework to start addressing the multiple controversies around generative AI, including those that pertain to education and research. It is based on a human-centred approach to AI which advocates that the use of AI should be at the service of the development of human capabilities for inclusive, just and sustainable futures. Such an approach must be guided by human rights principles, and the need to protect human dignity and the cultural diversity that defines the knowledge commons. In terms of governance, a human-centred approach requires proper regulation that can ensure human agency, transparency and public accountability.

The 2019 *Beijing Consensus on Artificial Intelligence (AI) and Education* further elaborates what a human-centred approach implies for the use of AI in the context of education. The Consensus affirms that the use of AI technologies in education should enhance human capacities for sustainable development and effective human-machine collaboration in life, learning and work. It also calls for further actions to ensure equitable access to AI to support marginalized people and address inequalities, while promoting linguistic and cultural diversities. The Consensus suggests adopting whole-of-government, intersectoral and multistakeholder approaches to the planning of policies on AI in education.

AI and education: Guidance for policy-makers (UNESCO, 2022*b*) further refines what a human-centred approach means when examining the benefits and risks of AI in education and the role of education as a means of developing AI competencies. It proposes concrete recommendations for the formulation of policies to steer the use of AI to (i) enable inclusive access to learning programmes, especially for vulnerable groups such as learners with disabilities; (ii) support personalized and open learning options; (iii) improve data-based provisions and management to expand access and improve quality in learning; (iv) monitor learning processes and alert teachers to failure risks; and (v) develop understanding and skills for the ethical and meaningful use of AI.

3.2 Steps to regulate GenAI in education

Prior to the release of ChatGPT, governments had been developing or adapting frameworks for regulating the collection and use of data and the adoption of AI systems across sectors including in education, which provided a legislative and policy context for the regulation of newly emergent AI applications. In the aftermath of the release of multiple competitive GenAI models starting in November 2022, governments have been adopting different policy responses – from banning GenAI to assessing needs for adapting existing frameworks, to urgently formulating new regulations.

Governmental strategies for regulating and facilitating the creative use of GenAI were mapped and reviewed in April 2023 (UNESCO, 2023*b*).[47] The review suggests a series of seven steps that governmental agencies can take to regulate generative AI and reassert public control in order to leverage its potentials across sectors, including in education.

Step 1: Endorse international or regional general data protection regulations or develop national ones

The training of GenAI models has involved collecting and processing online data from citizens across many countries. The use, by GenAI models, of data and content without consent is further challenging the issue of data protection.

General data protection regulations, with the EU's GDPR enacted in 2018 as one of the forerunner

examples, provide the necessary legal framework to regulate the collection and processing of personal data by the suppliers of GenAI. According to the Data Protection and Privacy Legislation Worldline portal of the United Nations Conference on Trade and Development (UNCTAD), 137 out of 194 countries have established legislation to safeguard data protection and privacy.[48]

The extent to which these frameworks are being implemented in those countries, however, remains unclear. It is therefore ever more critical to ensure that these are properly implemented, including regular monitoring of the operations of GenAI systems. It is also urgent for countries that do not yet have general data protection laws to develop them.

Step 2: Adopt/revise and fund whole-of-government strategies on AI

Regulating generative AI must be part and parcel of broader national AI strategies that can ensure safe and equitable use of AI across development sectors, including in education. The formulation, endorsement, funding and implementation of national AI strategies requires a whole-of-government approach. Only such an approach can ensure the coordination of intersectoral actions required for integrated responses to emerging challenges.

By early 2023, some 67 countries[49] had developed or planned national strategies on AI, with 61 of them taking the form of a standalone AI strategy, and 7 being chapters on AI integrated within broader national ICT or digitalization strategies. Understandably, given its novelty, none of these national strategies had yet covered generative AI as a specific issue at the time of writing.

It is critical that countries revise existing national AI strategies, or develop them, ensuring provisions to regulate the ethical use of AI across sectors including in education.

Step 3: Solidify and implement specific regulations on the ethics of AI

In order to address the ethical dimensions posed by the use of AI, specific regulations are required.

The UNESCO 2023 review of existing national AI strategies indicates that the identification of such ethical issues and the formulation of guiding principles is only common to some 40 national AI strategies.[50] And even here, the ethical principles will need to be translated into enforceable laws or regulations. This is seldom the case. Indeed, only around 20 countries had defined any clear regulations on the ethics of AI including as they relate to education, either as part of national AI strategies or otherwise. Interestingly, while education is highlighted as a policy domain across some 45 national AI strategies,[51] references to education are articulated more in terms of AI skills and talent development required to support national competitiveness, and less in terms of ethical issues.

Countries that do not yet have regulations on ethics of AI must urgently articulate and implement them.

Step 4: Adjust or enforce existing copyright laws to regulate AI-generated content

The increasingly pervasive use of GenAI has introduced new challenges for copyright, both concerning the copyrighted content or work that models are trained on, as well as the status of the 'non-human' knowledge outputs they produce.

At present, only China, EU countries and the United States have adjusted copyright laws to account for the implications of generative AI. The US Copyright Office, for instance, has ruled that the output of GenAI systems such as ChatGPT are not protectable under US copyright law, arguing that 'copyright can protect only material that is the product of human creativity' (US Copyright Office, 2023). Meanwhile in the EU, the proposed EU AI Act requires AI tool developers to disclose the copyrighted materials they used in building their systems (European Commission, 2021). China, through its regulation on GenAI released in July 2023, requires the labelling of outputs of GenAI as AI-generated content, and only recognizes them as outputs of digital synthesis.

Regulating the use of copyrighted materials in the training of GenAI models and defining the copyright status of GenAI outputs are emerging as new accountabilities of copyright laws. It is urgent that existing laws be adjusted to account for this.

Step 5: Elaborate regulatory frameworks on generative AI

The rapid pace of development of AI technologies is forcing national/local governance agencies to speed up their renewal of regulations. As of July 2023, only one country, China, had released specific official regulations on GenAI. The Provisional Regulations on Governing the Service of Generative AI released on 13 July 2023 (Cyberspace Administration of China, 2023*a*) requires providers of GenAI systems to label AI-generated content, images and videos properly and lawfully in accordance with its existing Regulation on Deep Synthesis in the Framework of Online Information Services. More of such national GenAI-specific frameworks need to be developed based upon an assessment of the gaps in existing local regulations and laws.

Step 6: Build capacity for proper use of GenAI in education and research

Schools and other educational institutions need to develop capacities to understand the potential benefits and risks of AI, including GenAI, for education. It is only based on such understanding that they can validate the adoption of AI tools. Moreover, teachers and researchers need to be supported to strengthen their capacities for the proper use of GenAI, including through training and continuous coaching. A number of countries have launched such capacity-building programmes, including Singapore, which has been offering a dedicated platform for the AI capacity development of educational institutions through its AI Government Cloud Cluster which includes a dedicated repository of GPT models (Ocampo, 2023).

Step 7: Reflect on the long-term implications of GenAI for education and research

The impact of current versions of GenAI is just beginning to unfold, and their effects on education are yet to be fully explored and understood. Meanwhile, stronger versions of GenAI and other classes of AI continue to be developed and deployed. Crucial questions remain, however, around the implications of GenAI for knowledge creation, transmission and validation – for teaching and learning, for curriculum design and assessment, and for research and copyright. Most countries are at the early stage of the adoption of GenAI in education, even as the longer-term impacts have yet to be understood. To ensure a human-centred use of AI, open public debate and policy dialogues on the long-term implications should urgently be conducted. Inclusive debate involving government, the private sector and other partners, should serve to provide insights and inputs for the iterative renewal of regulations and policies.

3.3 Regulations on GenAI: Key elements

All countries need to properly regulate GenAI in order to ensure it benefits development in education and other contexts. This section proposes actions around key elements that can be taken by: (1) governmental regulatory agencies, (2) providers of AI-enabled tools, (3) institutional users, and (4) individual users. While many of the elements in the framework are of a transnational nature, all should also be considered in light of the local context, that is, the specific country's educational systems and general regulatory frameworks already in place.

3.3.1. Governmental regulatory agencies

A whole-of-government approach is required for the coordination of the design, alignment and implementation of regulations on GenAI. The following seven key elements and actions are recommended:

- **Intersectoral coordination**: Establish a national body to lead on the whole-of-government approach to GenAI and coordinate cooperation across sectors.
- **Alignment of legislation**: Align the framework with the relevant legislative and regulatory contexts of each country – with, for example, general data protection laws, regulations on internet security, laws on the security of data produced from or used to serve citizens, and other relevant legislation and usual practices. Assess the appropriateness of existing regulations and any necessary adaptations in response to new issues raised by GenAI.
- **Balance between the regulation of GenAI and the promotion of AI innovation**: Promote intersectoral cooperation among companies, organizations, and education

and research institutions, as well as relevant public agencies to jointly develop trustworthy models; encourage the building of open-source eco-systems to promote the sharing of super-computing resources and high-quality pre-training datasets; and foster the practical application of GenAI across sectors and the creation of high-quality content for the public good.

- **Assessment and classification of the potential risks of AI**: Establish principles and a process for the assessment and categorization of the efficacy, safety and security of GenAI services, before they are deployed and throughout the system's life cycle. Consider categorization mechanisms based on the levels of risk that GenAI may imply for citizens. Classify them into strict regulations (i.e. banning AI-enabled applications or systems with unacceptable risks), special regulations for high-risk applications, and general regulations on applications that are not listed as high risk. See the EU's draft AI Act for an example of this approach.

- **Protection of data privacy**: Account for the fact that the use of GenAI almost always involves users sharing their data with the GenAI provider. Mandate the drafting and implementation of laws for the protection of users' personal information and identify and combat unlawful data storage, profiling and sharing.

- **Definition and enforcement of age limit for the use of GenAI**: Most GenAI applications are primarily designed for adult users. These applications often entail substantial risks for children, including exposure to inappropriate content as well as the potential for manipulation. In light of these risks and given the considerable uncertainty that continues to surround iterative GenAI applications, age restrictions are strongly recommended for general-purpose AI technologies in order to protect children's rights and wellbeing.

  Currently, the terms of use for ChatGPT require that users must be at least 13 years old, and users under 18 must have their parent or legal guardian's permission to use the services.[52] These age restrictions or thresholds are derived from the Children's Online Privacy Protection Act of the United States of America (Federal Trade Commission, 1998). Passed in 1998 before widespread social media use and well before the creation of easy-to-use and powerful GenAI applications such as ChatGPT, the US law specifies that organizations or individual social media providers are not allowed to provide services for children under the age of 13 without parental permission. Many commentators understand this threshold to be too young and have advocated for legislation to raise the age to 16. The GDPR of the European Union (2016) specifies that users must be at least 16 years old to use the services of social media without parental permissions.

  The emergence of various GenAI chatbots demand that countries carefully consider – and publicly deliberate – the appropriate age threshold for independent conversations with GenAI platforms. The minimum threshold should be 13 years of age. Countries will also need to decide if self-reporting age remains an appropriate means of age verification. Countries will need to mandate the accountabilities of GenAI providers for age verification and accountabilities of parents or guardians for monitoring the independent conversations of underage children.

- **National data ownership and the risk of data poverty**: Take legislative measures to protect national data ownership and regulate providers of GenAI that operate within its borders. For datasets generated by citizens that are being used for commercial purposes, establish regulations to promote mutual beneficial cooperation so that this category of data shall not be drained from the country to be exploited exclusively by the big tech companies.

3.3.2. Providers of GenAI tools

Providers of GenAI include organizations and individuals who are responsible for developing and making available GenAI tools, and/or are using GenAI technologies to provide services including through programmable application programming interfaces (APIs). Most of the influential providers of GenAI tools are extremely well-funded companies. It should be made clear to GenAI providers that they are accountable for ethics by design, including

for implementing the ethical principles stipulated in the regulations. The following ten categories of accountabilities should be covered:

- **Human accountabilities**: GenAI providers should be held responsible for ensuring adherence to core values and lawful purposes, respecting intellectual property, and upholding ethical practices, while also preventing the spread of disinformation and hate speech.
- **Trustworthy data and models**: GenAI providers should be required to evidence the trustworthiness and ethics of the data sources and methods used by their models and outputs. They must be mandated to adopt data and foundation models with proven legal sources, and abide by the relevant intellectual property laws (e.g. if the data are protected by intellectual property rights). In addition, when the models need to use personal information, the collection of said information should take place only with the informed and explicit consent of the owners.
- **Non-discriminatory content generation**: Providers of GenAI must prohibit the design and deployment of GenAI systems that generate biased or discriminatory content based on race, nationality, gender or other protected characteristics. They should ensure that robust 'guardrails' are in place to prevent GenAI producing offensive, biased or false content, while ensuring that the humans involved in informing the guardrails are protected and not exploited.
- **Explainability and transparency of GenAI models**: Providers should submit to public governance agencies their explanations of the sources, scale and types of data used by the models; their rules for labelling data in pre-training; the methods or algorithms that their models use to generate content or responses; and the services that their GenAI tools are providing. When necessary, they should offer support to help governance agencies understand the technology and data. GenAI's propensity to generate content with errors and contestable responses should be made transparent for users.
- **Labelling of GenAI content**: In accordance with relevant laws or regulations on the AI-assisted synthesis of online information, providers need to label GenAI-generated papers, reports, images and videos properly and lawfully. For example, GenAI output should be clearly labelled as having been produced by a machine.
- **Security and safety principles**: Providers of GenAI should ensure secure, robust and sustainable service throughout the life cycle of a GenAI system.
- **Specifications on appropriateness for access and use**: Providers of GenAI should provide clear specifications on the appropriate audience for, and use scenarios and purposes of, their services and help users of GenAI tools to make rational and responsible decisions.
- **Acknowledging the limitations and preventing predictable risks**: Providers of GenAI should clearly advertise the limitations of the methods used by the systems and their outputs. They need to develop technologies to ensure that the input data, methods, and outputs do no predictable harm to users, together with protocols to mitigate unpredictable harms when they occur. They must also provide guidance to help users understand GenAI-generated content based on ethical principles, and to prevent their over-reliance on and addiction to the generated content.
- **Mechanisms for complaints and remedies**: Providers of GenAI need to establish mechanisms and channels for the collection of complaints from users and the wider public, and take timely actions to accept and process these complaints.
- **Monitoring and reporting of unlawful use**: Providers shall cooperate with public governance agencies to facilitate the monitoring and reporting of unlawful use. This includes when people use GenAI products in ways that are illegal or violate ethical or social values such as promoting disinformation or hate speech, generating spam or composing malware.

3.3.3. Institutional users

Institutional users include educational authorities and institutions such as universities and schools that hold responsibilities for determining whether GenAI should be adopted and which types of GenAI tools should be procured and deployed within the institution.

- **Institutional auditing of GenAI algorithms, data and outputs**: Implement mechanisms to monitor as best as possible the algorithms and data used by GenAI tools and the outputs they generate. This should include regular audits and assessments, the protection of user data, and automatically filtering out inappropriate content.
- **Validating proportionality and protecting users' well-being**: Implement national classification mechanisms or build an institutional policy for categorizing and validating GenAI systems and applications. Ensure that the GenAI systems adopted by the institution are in line with locally validated ethical frameworks and do no predictable harm to the institutions' target users, especially children and vulnerable groups.
- **Review and address the long-term impacts**: Over time, relying on GenAI tools or content in education may have profound effects on the development of human capacities such as critical thinking skills and creativity. These potential effects should be evaluated and addressed.
- **Age appropriateness**: Consider implementing minimum age restrictions for the independent use of GenAI in the institution.

3.3.4. Individual users

Individual users potentially include all people globally who have access to the Internet and at least one type of GenAI tool. The term 'individual users', as employed here, mainly refer to individual teachers, researchers and learners in formal educational institutions or those participating in non-formal programmes of study.

- **Awareness of terms of reference on the use of GenAI**: Upon signing or expressing consent to service agreements, users should be aware of the obligations of abiding by the ToR stipulated in the agreement and the laws or regulations behind the agreement.
- **Ethical use of GenAI applications**: Users should deploy GenAI responsibly and avoid exploiting it in ways that might damage other people's reputations and lawful rights.
- **Monitoring and reporting unlawful GenAI applications**: When discovering GenAI applications that violate one or more regulations, users should notify the governmental regulatory agencies.

4. Towards a policy framework for the use of generative AI in education and research

Regulating GenAI to harness the potential benefits for education and research requires the development of appropriate policies. The 2023 survey data cited above indicate that only a handful of countries have adopted specific policies or plans for the use of AI in education. The preceding section outlined a vision, the steps required and the key elements and actions that can be taken by various stakeholders. This section provides measures that can be taken to develop coherent, comprehensive policy frameworks to regulate the use of GenAI in education and research.

A starting point for this is the 2022 *AI and education: guidance for policy-makers* (UNESCO, 2022*b*). It proposes a comprehensive set of recommendations to guide governments in the development and implementation of sector-wide policies on AI and education with a focus on promoting quality education, social equity and inclusion. Most of the recommendations remain applicable and can be further adapted to guide the formulation of specific policies on GenAI in education. The following eight specific measures for the planning of policies on GenAI in education and research are proposed here to complement this existing guidance.

4.1 Promote inclusion, equity, and linguistic and cultural diversity

The critical importance of inclusion must be recognized and addressed throughout the life cycle of GenAI. More specifically, GenAI tools will not help address the fundamental challenges in education or the achievement of SDG 4 commitments unless such tools are made inclusively accessible (irrespective of gender, ethnicity, special educational needs, socio-economic status, geographic location, displacement status and so on), and if they do not by design advance equity, linguistic diversities and cultural pluralism. To achieve this, the following three policy measures are recommended:

- Identify those who do not have or cannot afford internet connectivity or data, and take action to promote universal connectivity and digital competencies in order to reduce the barriers to equitable and inclusive access to AI applications. Establish sustainable funding mechanisms for the development and provision of AI-enabled tools for learners who have disabilities or special needs. Promote the use of GenAI to support lifelong learners of all ages, locations, and backgrounds.
- Develop criteria for the validation of GenAI systems to ensure that there is no gender bias, discrimination against marginalized groups, or hate speech embedded in data or algorithms.
- Develop and implement inclusive specifications for GenAI systems and implement institutional measures to protect linguistic and cultural diversities when deploying GenAI in education and research at scale. Relevant specifications should require providers of GenAI to include data in multiple languages, especially local or indigenous languages, in the training of GPT models to improve GenAI's ability to respond to and generate multilingual text. Specifications and institutional measures should strictly prevent AI providers from any intentional or unintentional removal of minority languages or discrimination against speakers of indigenous languages, and require providers to stop systems promoting dominant languages or cultural norms.

4.2 Protect human agency

As GenAI becomes increasingly sophisticated, a key danger is its potential to undermine human agency. As more individuals use GenAI to support their writing or other creative activities, they might unintentionally come to rely upon it. This can compromise the development of intellectual skills. While GenAI may be used to challenge and extend human thinking, it should not be allowed to usurp human thinking. The

protection and enhancement of human agency should always be core considerations when designing and adopting GenAI from the following seven perspectives:

- Inform learners about the types of data that GenAI may collect from them, how these data are used, and the impact it may have on their education and wider lives.
- Protect learners' intrinsic motivation to grow and learn as individuals. Reinforce human autonomy over their own approaches to research, teaching, and learning in the context of using increasingly sophisticated GenAI systems.
- Prevent the use of GenAI where it would deprive learners of opportunities to develop cognitive abilities and social skills through observations of the real world, empirical practices such as experiments, discussions with other humans, and independent logical reasoning.
- Ensure sufficient social interaction and appropriate exposure to creative output produced by humans and prevent learners becoming addicted to or dependent on GenAI.
- Use GenAI tools to minimize the pressure of homework and exams, rather than to exacerbate it.
- Consult researchers, teachers and learners about their views on GenAI and use the feedback to decide whether and how specific GenAI tools should be deployed at an institutional scale. Encourage learners, teachers and researchers to critique and question the methodologies behind the AI systems, the accuracy of the output content, and the norms or pedagogies that they may impose.
- Prevent ceding human accountability to GenAI systems when making high-stakes decisions.

4.3 Monitor and validate GenAI systems for education

As noted, the development and deployment of GenAI should be ethical by design. Subsequently, once the GenAI is in use, and throughout its life cycle, it needs to be carefully monitored and validated – for its ethical risks, its pedagogical appropriateness and rigour, and its impact on students, teachers and classroom/school relationships. In this respect, the following five actions are recommended:

- Build validation mechanisms to test whether GenAI systems used in education and research are free of biases, especially gender biases, and whether they are trained on data representative of diversity (in terms of gender, disability, social and economic status, ethnic and cultural background, and geographic location).
- Address the complex issue of informed consent, particularly in contexts where children or other vulnerable learners are not capable of giving genuinely informed consent.
- Audit whether outputs of GenAI include deepfake images, fake (inaccurate or false) news, or hate speech. If the GenAI is found to be generating inappropriate content, institutions and educators should be willing and able to take swift and robust action to mitigate or eliminate the problem.
- Exercise strict ethical validation of GenAI applications before they are officially adopted in educational or research institutions (i.e. adopt an ethics-by-design approach).
- Before making decisions on institutional adoption, ensure that the GenAI applications in question do no predictable harm to students, are educationally effective and valid for the ages and abilities of the target learners, and are aligned with sound pedagogical principles (i.e. based on the relevant domains of knowledge and the expected learning outcomes and development of values).

4.4 Develop AI competencies including GenAI-related skills for learners

The development of AI competencies among learners is key to the safe, ethical and meaningful use of AI in education and beyond. However, according to UNESCO data, only some 15 countries had developed and implemented, or were in the process of developing, government-endorsed AI curricula in schools in early 2022 (UNESCO, 2022*c*). The latest developments of GenAI have further reinforced the urgent need for

everyone to achieve an appropriate level of literacy in both the human and technological dimensions of AI, understanding how it works in broad terms, as well as the specific impact of GenAI. In order to do so, the following five actions are now urgently needed:

- Commit to the provision of government-sanctioned AI curricula for school education, in technical and vocational education and training, as well as for lifelong learning. AI curricula should cover the impact of AI on our lives, including the ethical issues it raises, as well as age-appropriate understanding of algorithms and data, and skills for the proper and creative use of AI tools including GenAI applications;
- Support higher education and research institutions to enhance programmes to develop local AI talent;
- Promote gender equality in developing advanced AI competencies and create a gender-balanced pool of professionals;
- Develop intersectoral forecasts of the national and global job shifts caused by the latest GenAI automation, and enhance future-proof skills at all levels of education and lifelong learning systems based on prospective shifts in demand; and
- Provide special programmes for older workers and citizens who may need to learn new skills and adapt to new environments.

4.5 Build capacity for teachers and researchers to make proper use of GenAI

According to 2023 survey data on the governmental use of AI for education (UNESCO, 2023*c*), only some seven countries (China, Finland, Georgia, Qatar, Spain, Thailand and Türkiye) reported that they had developed or were developing frameworks or training programmes on AI for teachers. Only the Ministry of Education of Singapore reported building an online repository centred on the use of ChatGPT in teaching and learning. This clearly shows that teachers in most countries are do not have access to well-structured training on the use of AI in education, not least on the use of GenAI.

To prepare teachers for the responsible and effective use of GenAI, countries need to take the following four actions:

- Formulate or adjust guidance based on local tests to help researchers and teachers to navigate widely available GenAI tools, and steer the design of new domain-specific AI applications.
- Protect the rights of teachers and researchers and the value of their practices when using GenAI. More specifically, analyse teachers' unique roles in facilitating higher-order thinking, organizing human interaction, and fostering human values.
- Define the value orientation, knowledge and skills that teachers need in order to understand and use GenAI systems effectively and ethically. Enable teachers to create specific GenAI-based tools to facilitate learning in the classroom and in their own professional development.
- Dynamically review the competencies needed by teachers to understand and use AI for teaching, learning and for their professional development, and integrate emerging sets of values, understanding and skills on AI into the competency frameworks and programmes for training in-service and pre-service teachers.

4.6 Promote plural opinions and plural expressions of ideas

As noted earlier, GenAI understands neither the prompt nor the response. Instead, its responses are based on probabilities of language patterns found in the data (from the internet) that it ingested when its model was trained. To address some of the fundamental problems of its outputs, new methods are currently being researched such as connecting GenAI with knowledge databases and reasoning engines. Nonetheless, because of how it works, its source materials and the tacit perspectives of its developers, GenAI, by definition, reproduces dominant worldviews in its outputs and undermines minority and plural opinions. Accordingly, if human civilizations are to flourish, it is essential that we recognize that GenAI can never be an authoritative source of knowledge on whatever topic it engages with.

As a result, users need to view GenAI's outputs critically. In particular:

- Understand the role of GenAI as a fast but frequently unreliable source of information. While some plugins and LLM-based tools mentioned earlier are designed to support the need to access validated and up-to-date information, there is little robust evidence as yet that these are effective.
- Encourage learners and researchers to critique the responses provided by GenAI. Recognize that GenAI typically only repeats established or standard opinions, thus undermining plural and minority opinions and plural expressions of ideas.
- Provide learners with sufficient opportunities to learn from trial and error, empirical experiments, and observations of the real world.

4.7 Test locally relevant application models and build a cumulative evidence base

GenAI models are thus far dominated by information from the Global North and under-representing voices from the Global South and indigenous communities. Only by means of determined efforts, for example harnessing synthetic data (Marwala, 2023), will GenAI tools be made sensitive to the context and needs of local communities, particularly those from the Global South. To explore approaches relevant to local needs, while collaborating more widely, the following eight actions are recommended:

- Ensure the design and adoption of GenAI are strategically planned rather than facilitating a passive and non-critical procurement process.
- Incentivize the designers of GenAI to target open-ended, exploratory and diverse learning options.
- Test and scale up evidence-based use cases of applying AI in education and research in accordance with educational priorities, rather than novelty, myth or hype.
- Guide the use of GenAI to trigger innovation in research, including through leveraging computing capabilities, large-scale data, and GenAI outputs to inform and inspire the improvement of research methodologies.
- Review the social and ethical implications of incorporating GenAI into research processes.
- Establish specific criteria based on evidenced pedagogical research and methodologies and build an evidence base for the effectiveness of GenAI in terms of supporting the provision of inclusive learning opportunities, meeting learning and research objectives, and promoting linguistic and cultural diversities.
- Take iterative steps to strengthen evidence on the social and ethical impact of GenAI.
- Analyse the environmental costs of leveraging AI technologies at scale (e.g. the energy and resources required for training GPT models), and develop sustainable targets to be met by AI providers in a bid to avoid adding to climate change.

4.8 Review long-term implications in an intersectoral and interdisciplinary manner

Intersectoral and interdisciplinary approaches are essential for the effective and ethical use of GenAI in education and research. Only by drawing on a range of expertise, while bringing together multiple stakeholders, will key challenges be identified promptly and addressed effectively to minimize long-term negative implications while leveraging ongoing and cumulative benefits. Therefore, these three actions are recommended:

- Collaborate with AI providers, educators, researchers, and representatives of parents and students to plan system-wide adjustments in curriculum frameworks and assessment methodologies, to fully leverage the potential and mitigate the risks of GenAI for education and research.
- Bring together intersectoral and interdisciplinary expertise including educators, researchers, learning scientists, AI engineers, and representatives of other stakeholders to examine the long-term implications of GenAI for learning and knowledge production, research and copyright, curriculum and assessment, and human collaboration and social dynamics.
- Provide timely advice to inform the iterative updates of regulations and policies.

5. Facilitating creative use of GenAI in education and research

When ChatGPT was first launched, educators across the world expressed their concerns about its potential to generate essays and how it might help students to cheat. More recently, many people and organizations including some of the world's leading universities have argued that 'the genie is out of the bottle' and tools like ChatGPT are here to stay and may be used productively in educational settings. Meanwhile, the internet is now awash with suggestions for the use of GenAI in education and research. These include using it to inspire new ideas, generate multi-perspective examples, develop lesson plans and presentations, summarize existing materials, and stimulate image creation. Although new ideas appear on the internet almost every day, researchers and educators are still working out exactly what GenAI means for teaching, learning and research. In particular, the people behind many of the proposed uses may not have properly considered ethical principles, while others are driven by the technological potentials of GenAI rather than the needs of researchers, teachers or learners. This section outlines ways in which the creative use of GenAI in education can be facilitated.

5.1 Institutional strategies to facilitate responsible and creative use of GenAI

As stated earlier, educational and research institutions should develop, implement and validate appropriate strategies and ethical frameworks to guide the responsible and ethical use of GenAI systems and applications to meet the needs of teaching, learning and research. This can be achieved through the following four strategies:

- **Institutional implementation of ethical principles**: Ensure that researchers, teachers and learners use GenAI tools responsibly and ethically, and critically approach the accuracy and validity of the outputs.
- **Guidance and training**: Provide guidance and training to researchers, teachers and learners about GenAI tools to ensure that they understand the ethical issues such as biases in data labelling and algorithms, and that they comply with the appropriate regulations on data privacy and intellectual property.
- **Building GenAI prompt-engineering capacities**: In addition to subject-specific knowledge, researchers and teachers will also need expertise in engineering and critically evaluating the prompts generated by GenAI. Given that the challenges raised by GenAI are complex, researchers and teachers must receive high-quality training and support to do this.
- **Detecting GenAI-based plagiarism in written assignments**: GenAI might allow students to pass off text that they did not write as their own work, a new type of 'plagiarism'. GenAI providers are required to label their outputs with 'generated by AI' watermarks, while tools are being developed to identify material that has been produced by AI. However, there is little evidence that these measures or tools are effective. The immediate institutional strategy is to uphold academic integrity and reinforce accountability through rigorous detection by humans. The long-term strategy is for institutions and educators to rethink the design of written assignments so that they are not used to assess tasks that GenAI tools can do better than human learners. Instead, they should address what humans can do that GenAI and other AI tools cannot do, including applying human values such as compassion and creativity to complex real-world challenges.

5.2 A 'human-centred and pedagogically appropriate interaction' approach

Researchers and educators should prioritize human agency and responsible, pedagogically appropriate interaction between humans and AI tools when deciding on whether and how to use GenAI. This includes the following five considerations:

- the use of the tool(s) should contribute to humans' needs and make learning or research more effective than a no-tech or other alternative approach;
- educators' and learners' use of the tool(s) should be based on their intrinsic motivation;
- the process of using the tool(s) should be controlled by the human educators, learners or researchers;
- the choice and organization of the tool(s) and the content they generate should be proportionate, based on the learners' age range, the expected results, and the type of target knowledge (e.g. factual, conceptual, procedural, or metacognitive) or target problem (e.g. well-structured or ill-structured); and
- the usage processes should ensure humans' interactive engagement with GenAI and higher-order thinking, as well as human accountability for decisions related to the accuracy of AI-generated content, teaching or research strategies, and their impact on human behaviours.

5.3 Co-designing the use of GenAI in education and research

The use of GenAI in education and research should be neither imposed in a top-down approach nor driven by commercial hyperbole. Instead, its safe and effective use should be co-designed by teachers, learners, and researchers. It also needs a robust process of piloting and evaluation to examine the effectiveness and the long-term impact of different uses.

To facilitate the recommended co-design, this Guidance proposes a framework composed of the following six perspectives to consolidate pedagogically appropriate interactions and the prioritization of human agency:

- appropriate domains of knowledge or problems;
- expected outcomes;
- appropriate GenAI tools and comparative advantages;
- requirements for users;
- required human pedagogical methods and example prompts; and
- ethical risks.

This section provides examples of how a process of co-design in the use of GenAI can inform research practices, assist in teaching, provide coaching for the self-paced acquisition of foundational skills, facilitate higher-order thinking, and support learners with special needs. These examples represent only the tip of the iceberg of the increasing number of domains in which GenAI may have potential.

5.3.1 Generative AI for research

GenAI models have demonstrated their potential to expand views on research outlines and to enrich data exploration as well as literature reviews (see **Table 3**). While a wider range of use cases may emerge, novel research is needed to define the potential domain of research problems and expected outcomes, to demonstrate the efficacy and accuracy, and to ensure that human agency in understanding the real world through research will not be undermined by the use of AI tools.

Table 3. Co-designing uses of GenAI for research

Potential but unproven uses	Appropriate domains of knowledge or problems	Expected outcomes	Appropriate GenAI tools and comparative advantages	Requirements for the users	Required human pedagogical methods and example prompts	Possible risks
AI advisor for research outlines	Might be useful in well-structured domains of research problems.	Developing and answering research questions, suggesting appropriate methodologies. **Potential transformation: 1:1 coach for research planning**	Starting with the list in Section 1.2, assess whether the GenAI tools are locally accessible, open-source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	The researcher must have a basic understanding of the topic(s). The researcher should develop the ability to verify the information, and be especially capable of detecting citations of non-existent research papers.	Basic ideas for the definition of research problems (e.g. target audience, issues, context), as well as methodologies, expected outcomes and formats. Example prompt: *Write 10 potential research questions for [topic x] and rank them in importance for [the field of research y].*	Need to be alert to the high risk of GenAI making up information (such as non-existent research publications), and of users being tempted to copy and paste AI-generated research outlines, which may reduce junior researchers' opportunities to learn from trial and error.
Generative data explorer and literature reviewer	Might be useful in ill-structured domains of research problems.	Automatic gathering of information, exploration of a wide range of data, proposing drafts of literature reviews, and automating parts of data interpretation. **Potential transformation: AI trainers for data exploration and literature reviews**	Starting with the list in Section 1.2, assess whether the GenAI tools are locally accessible, open source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	The researchers must have a robust knowledge of methodologies and techniques for analysing data.	Progressive definitions of the problems, the scope of data and sources of literature, the methodologies used for data exploration and literature reviews, and the expected outcomes and their formats.	Need to beware of GenAI-fabricated information, the improper handling of data, possible breaches of privacy, unauthorized profiling, and gender bias. Need to be alert to the propagation of dominant norms and their threat to alternative norms and plural opinions.

5.3.2 Generative AI to facilitate teaching

The use of both general GenAI platforms and specific educational GenAI tools should be designed to enhance teachers' understanding of their subject as well as their knowledge on teaching methodologies, including through teacher-AI co-designing of lesson plans, course packages, or entire curricula. The GenAI-assisted conversational teachers' assistants or 'generative twins of teaching assistants'[53] that are pre-trained based on data from experienced teachers and libraries, have been tested in some educational institutions and may hold unknown potential as well as uncharted ethical risk. The practical application processes and further iterations of these models still need to be carefully audited through the framework recommended in this Guidance and safeguarded by human supervision as exemplified in **Table 4**.

Table 4. Co-designing uses of GenAI to support teachers and teaching

Potential but unproven uses	Appropriate domains of knowledge or problems	Expected outcomes	Appropriate GenAI tools and comparative advantages	Requirements for the users	Required human pedagogical methods and example prompts	Possible risks
Curriculum or course co-designer	Conceptual knowledge on certain teaching topics and procedural knowledge on teaching methodologies.	Assisting with the curriculum and lesson design process, including outlining or extending views on key areas of the target topic and defining the curriculum structure. It may also help teachers prepare tests and exams by offering examples of questions and rubrics for evaluation. **Potential transformation: AI-generated curriculum**	Starting with the list in Section 1.2, assess whether the GenAI tools are locally accessible, open source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	The teachers must understand and carefully specify what they want the curriculum, courses, lessons, or tests to cover and achieve, whether they want to address procedural or conceptual knowledge, and what teaching theory they wish to apply.	Questions to GenAI on suggesting the structure and examples of factual knowledge on topic(s), suggesting teaching methods and processes for topics or problems, or creating course packages or lesson plans based on topic(s) and formatting. Human curriculum designers need to verify the factual knowledge and check the appropriateness of the suggested course packages.	The risk of GenAI imposing dominant norms and pedagogical methods is high. It may inadvertently perpetuate exclusionary practices in favour of the already data-rich groups and reinforce inequalities in access to relevant and high-quality educational opportunities, disadvantaging data-poor groups.
Generative chatbot as teaching assistant	Conceptual knowledge across multiple domains in well-structured problems.	Providing individualized support, answering questions and identifying resources. **Potential transformation: Generative twins of teachers' assistants**	Starting with the list in Section 1.2, assess whether the GenAI tools are locally accessible, open source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	It supports teachers but targets learners directly, so this requires learners to have sufficient prior knowledge, abilities and metacognitive skills to the verify the outputs of GenAI and notice the misinformation. Thus it might be more appropriate for learners in higher education.	Requires the teachers to understand the problems clearly, to monitor the conversation and help learners to verify dubious answers provided by GenAI.	Based on the current capabilities of GenAI models, educational institutions need to guarantee human supervision of the responses provided by GenAI tools, being alert to the risk of misinformation. It may also limit learners' access to human guidance and support, hindering the development of a strong teacher-student relationship, which is especially concerning for children.

5.3.3 Generative AI as a 1:1 coach for the self-paced acquisition of foundational skills

While higher-order thinking and creativity have been drawing increasing attention when defining learning outcomes, there is still no doubting the importance of foundational skills in children's psychological development and competency progression. Among a large spectrum of abilities, these foundational skills include listening, pronouncing, and writing a mother tongue or foreign language, as well as basic numeracy, art, and coding. 'Drill and practice' should not be considered as an obsolete pedagogical method; instead, it should be reinvigorated and upgraded with GenAI technologies to foster learners' self-paced rehearsal of foundational skills. If guided by ethical and pedagogical principles, GenAI tools have the potential to become 1:1 coaches for such self-paced practice, as illustrated in **Table 5**.

Table 5. Co-designing uses of GenAI as a 1:1 coach for the self-paced acquisition of foundational skills in languages and the arts

Potential but unproven uses	Appropriate domains of knowledge or problems	Expected outcomes	Appropriate GenAI tools and comparative advantages	Requirements for the users	Required human pedagogical methods and example prompts	Possible risks
1:1 language skills coach	Language learning, including conversational practice.	Engaging learners in conversational practice to help them improve listening, speaking and writing skills by offering feedback, corrections and modelling of the mother tongue or foreign language. Helping learners improve their writing skills. **Potential transformation:** **1:1 language tutorials at beginner level**	Starting with the list in Section 1.2, assess whether the GenAI tools are locally accessible, open source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	An age limit may be set for the independent conversations in view of the culturally insensitive or age-inappropriate output provided by GenAI systems. The learner must have the initial intrinsic motivation to engage in a conversation with an AI system. The learner should be able to take a critical approach to the GenAI's suggestions and check whether they are accurate.	When using general GenAI platforms, human teachers can guide learners to engage with GenAI tools to request feedback for improvement, correction of pronunciation or examples of writing. For instance: *Engage me in a conversation in the [x] language, helping me to continuously improve.* *Suggest some ideas to help me write about [topic x].*	Need to be alert to culturally insensitive or contextually inaccurate language, and the inadvertent perpetuation of stereotypes or cultural biases. Without proper pedagogical strategies to simulate learners' intrinsic motivations, it may limit children's creativity and originality, leading to formulaic writing. It may also limit opportunities for real-life interactions, plural opinions, plural expression, and critical thinking.
1:1 art coach	Technical skills in areas of art such as music and drawing.	Providing suggestions for art techniques (e.g. tips on perspective and colour), or musical composition (e.g. melody and chord progression). **Potential transformation:** **1:1 art teacher at introductory levels**	Starting with the list in Section 1.2, assess whether the GenAI tools are locally accessible, open source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	Learners must have some initial aims for creating art or music, a foundational understanding of the key elements of the domain of art or music, and basic abilities to analyse the artworks or musical compositions.	Human teachers should ask learners to compare AI tools' art techniques with their own artwork. Human teachers or coaches must encourage learners to develop and apply their imagination and creativity, which GenAI cannot replace. Example prompt: *Suggest some ideas to inspire me to create an image on [topics/ideas].*	May expose children to inappropriate or offensive content, which may violate their right to safeguarding and well-being. GenAI tools raise the risk of stopping learners from developing their imagination and creativity.
1:1 coach for coding or arithmetic	Conceptual programming knowledge and skills at the introductory level. It might also apply to the learning of basic mathematics.	Supporting self-paced learning of basic coding knowledge and skills, finding bugs in learners' coding and providing immediate feedback, and tailoring answers to questions. **Potential transformation:** **1:1 coding teacher at introductory level**	Starting with the list in Section 1.3, assess whether the GenAI tools are locally accessible, open source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	Finding and defining a problem, and designing algorithms to solve the problem, remain the core aspects of learning coding and programming. Learners must have intrinsic motivation to use the coding, along with some basic knowledge and skills in using the programming language.	Human teachers and coaches should teach basic knowledge and skills, and inspire learners to use computational thinking and programming to solve problems including through collaborative coding. Example prompt: *Suggest some unusual ideas for coding.*	The accuracy of feedback and suggestions remains a problematic issue as GenAI will not always be right. There is a high risk that GenAI tools will prevent learners from developing computational thinking skills and abilities to find and define meaningful problems for coding.

5.3.4 Generative AI to facilitate inquiry or project-based learning

If not used purposefully to facilitate higher-order thinking or creativity, GenAI tools tend to encourage plagiarism or shallow 'stochastic parroting' outputs. However, given that GenAI models have been trained based on large-scale data, they have potential for acting as an opponent in Socratic dialogues or as a research assistant in project-based learning. Yet these potentials can only be leveraged through instructional/learning design processes that aim to trigger higher-order thinking as exemplified in **Table 6**.

Table 6. Co-designing uses of GenAI to facilitate inquiry or project-based learning

Potential but unproven uses	Appropriate domains of knowledge or problems	Expected outcomes	Appropriate GenAI tools and comparative advantages	Requirements for the users	Required human pedagogical methods and example prompts	Possible risks
Socratic challenger	Ill-structured problems.	Engage learners in dialogue reminiscent of the Socratic questioning of prior knowledge, leading to the discovery of new knowledge or deeper understanding. **Potential transformation:** **1:1 Socratic opponent**	Starting with the list in Section 1.3, assess whether specific GenAI tools are locally accessible, open-source, rigorously tested and validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	The learner must have reached the age that allows them to conduct independent conversations with GenAI tools. Learners must have prior knowledge and abilities to check whether the arguments and information presented are accurate.	Human teachers may help prepare a list of gradually deeper questions as examples for learners to adapt into prompts. Learners may also start with a broad prompt such as *'Engage me in a Socratic dialogue in order to help me take a critical perspective towards [topic x]'* and then gradually deepen the dialogue through increasingly refined prompts.	The current GenAI tools may generate similar or standard answers that limit learners' exposure to diverse viewpoints and alternative perspectives, leading to an echo-chamber effect, and hinder the development of independent thinking.
Advisor for project-based learning	Ill-structured research problems in science or social studies.	Support knowledge creation through helping learners to conduct project-based learning. This includes GenAI playing a role that is similar to the research advisor described in Table 3. **Potential transformation:** **1:1 project-based learning coach**	Starting with the list in Section 1.3, assess whether the GenAI tools are locally accessible, open source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	Learners could act as junior researchers in planning and implementing project-based learning. The learners must be old enough for the independent use of GenAI platforms. Learners must have the motivation and ability to engage in self-directed project-based learning activities, so that they are not tempted to passively copy and paste the answers provided by GenAI tools.	Human teachers guide learners to ask GenAI to provide basic ideas for the definition of research problems as suggested in 5.3.1. Individual and group learners use GenAI tools to conduct literature reviews, collect and process data, and create reports.	Learners without the solid prior knowledge and the ability necessary to verify the accuracy of answers may be misled by the information that GenAI tools provide. It may also limit learners' discussions and interactions with peers and reduce opportunities for collaborative learning, potentially harming their social development.

5.3.5 Generative AI to support learners with special needs

Theoretically, GenAI models have the potential to help learners with hearing or visual impairments. The emerging practices include GenAI-enabled subtitles or captions for deaf and hard-of-hearing learners, and GenAI-generated audio description for visually impaired learners. GenAI models can also convert text to speech and speech to text to enable people with visual, hearing, or speech impairments to access content, ask questions, and communicate with their peers. However, this function has not yet been leveraged at scale. According to the survey mentioned earlier, conducted by UNESCO in 2023 on governments' use of AI in education, only four countries (China, Jordan, Malaysia and Qatar) reported that their governmental agencies had validated and recommended AI-assisted tools to support inclusive access for learners who have disabilities (UNESCO, 2023*c*).

There is also a trend toward iterations of GenAI models being trained to support learners to use their own languages, including minority and indigenous languages, to learn and communicate. For example, PaLM 2, Google's next-generation LLM, is trained on parallel data covering hundreds of languages in the form of source and target text pairs. The inclusion of parallel multilingual data is designed to further improve the model's ability to understand and generate multilingual text (Google, 2023*b*).

By providing real-time translations, paraphrasing, and automatic correction, GenAI tools have the potential to help learners who use minority languages to communicate ideas and enhance their collaboration with peers from different linguistic backgrounds. However, this will not happen naturally at scale. Only with purposeful design can this potential be leveraged to amplify the voices of marginalized groups.

Finally, it has also been suggested that GenAI systems have the potential to carry out conversation-based diagnoses, identifying psychological or social-emotional problems as well as learning difficulties. However, there remains little evidence that this approach is either effective or safe, and any diagnoses would require interpretation by skilled professionals.

Table 7. Co-designing uses of GenAI to support learners with special needs

Potential but unproven uses	Appropriate domains of knowledge or problems	Expected outcomes	Appropriate GenAI tools and comparative advantages	Requirements for the users	Required human pedagogical methods and example prompts	Possible risks
Conversational diagnosis of learning difficulties	This might be helpful for learners who are facing learning difficulties caused by psychological, social or emotional problems.	Using natural-language engagement to identify the needs of learners who have psychological, social or emotional problems or learning difficulties, in order to provide them with relevant support or instruction. **Potential transformation:** **1:1 primary advisor for learners with social or emotional problems or learning difficulties**	In addition to general GenAI tools, search for chatbots powered by GenAI. Assess whether they are locally accessible, open source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	Teachers or specialists who work with this group of learners will need to ensure that the primary advice suggested by the GenAI system is accurate.	Teachers or facilitators need to provide comfortable environments to engage the learner in a conversation in order to diagnose psychological, social, or emotional problems, or learning difficulties.	May inadvertently misdiagnose the learner's specific challenges, leading to the wrong support being provided.

Potential but unproven uses	Appropriate domains of knowledge or problems	Expected outcomes	Appropriate GenAI tools and comparative advantages	Requirements for the users	Required human pedagogical methods and example prompts	Possible risks
AI-powered accessibility tools	These enable learners with hearing or visual impairment to access a wider range of content, thus improving the quality of their learning.	Meeting learners' access needs and supporting their acquisition of subject-specific knowledge by providing GenAI-enabled captioning and/or sign language interpretation for audio or video content, and audio descriptions for text or other visual material. **Potential transformation:** **1:1 personalized AI-powered language aids**	In addition to general GenAI tools, search for relevant and trusted AI-powered generators of captions and audio descriptions. Assess whether they are locally accessible, open source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	The educators or facilitators must help learners access and learn how to operate the GenAI tools. They also need to ensure that the tools' outputs genuinely support these learners and do not reinforce the challenges and biases that they face.	Need to test the accessibility of platforms or tools to identify and fix accessibility issues before they are used. GenAI tools can only provide access to content, so educators and facilitators should focus on enhancing their quality of learning and social well-being. Educators and facilitators need to teach the learners to create voice or text prompts based on their abilities.	The captions or audio descriptions produced by GenAI platforms that are not designed specifically to support vision or hearing are often inaccurate and may mislead learners with special needs. These tools may inadvertently reinforce existing biases.
Generative amplifier for marginalized learners	It might be helpful for learners from minority linguistic or cultural backgrounds to express and amplify their voices, to participate online, and to conduct collaborative social studies.	Providing real-time translations, paraphrasing, and automatic correction of writing to support learners from marginalized groups to use their own languages to communicate with peers from different linguistic backgrounds. **Potential transformation:** **Inclusive LLMs for marginalized learners**	A specific example for consideration is PaLM 2. Assess whether the GenAI tools are locally accessible, open source, rigorously tested or validated by authorities. Further consider the advantages and challenges of any particular GenAI tool, and ensure that it properly addresses specific human needs.	The learners should have knowledge or meaningful opinions on the topic of the conversation or collaborative study. They need to be capable of making responsible and non-discriminatory contributions and avoiding hate speech.	Teachers or educators should design studies and writing tasks for learners on social or cultural topics, or organize online seminars or intercultural collaborations to stimulate learners to generate ideas and share opinions.	Need to identify and correct the errors in AI translations and paraphrasing that may cause intercultural misunderstandings. This use can provide opportunities for marginalized learners to amplify their voices, but will not touch the root cause of data poverty and therefore cannot decolonize AI tools.

6. GenAI and the future of education and research

GenAI technologies are still rapidly evolving and likely to have a profound impact on education and research, and are yet to be fully understood. Therefore, their potential long-term implications for education and research need immediate attention and further in-depth review.

6.1 Uncharted ethical issues

The increasingly sophisticated GenAI tools will raise additional ethical concerns that need to be examined in detail. Further to Sections 2 and 3, deeper and more forward-looking analyses are needed to reveal and address uncharted ethical issues from at least the following five perspectives:

- **Access and equity:** GenAI systems in education may exacerbate existing disparities in access to technology and educational resources, further deepening inequities.
- **Human connection**: GenAI systems in education may reduce human-to-human interaction and the critical social-emotional aspects of learning.
- **Human intellectual development**: GenAI systems in education may limit learners' autonomy and agency by providing predetermined solutions or narrowing the range of possible learning experiences. Their long-term impact on young learners' intellectual development needs to be investigated.
- **Psychological impact**: GenAI systems that mimic human interactions may have unknown psychological effects on learners, raising concerns about their cognitive development and emotional well-being, and about the potential for manipulation.
- **Hidden bias and discrimination**: As more sophisticated GenAI systems are being developed and applied in education, they are likely to generate new biases and forms of discrimination based on the training data and methods used by the models, which can result in unknown and potentially harmful outputs.

6.2 Copyright and intellectual property

The emergence of GenAI is rapidly changing the way in which scientific, artistic and literary works are created, distributed and consumed. Unauthorized copying, distribution or use of copyrighted works without permission from the copyright holder violates their exclusive rights and can lead to legal consequences. For example, the training of GenAI models has been accused of infringing copyright. In one of the recent cases, the AI-generated song featuring 'Drake' and 'The Weeknd' (Abel Tesfaye) reached millions of listeners before being taken offline due to a copyright dispute (Coscarelli, 2023). While the emerging regulatory frameworks intend to require GenAI providers to recognize and protect the intellectual property of the owners of the content used by the model, it is becoming increasingly challenging to determine the ownership and originality of the overwhelming amount of generated works. This lack of traceability not only raises concerns about protecting the rights of creators and ensuring fair compensation for their intellectual contributions, but also introduces challenges into educational contexts about how the output of GenAI tools may responsibly be used. This may have profound implications for the research system.

6.3 Sources of content and learning

GenAI tools are changing the way teaching and learning content can be generated and provided. In the future, content generated through human-AI conversations may become one of the main sources of knowledge production. This is likely to further undermine learners' direct engagement with educational content based on resources, textbooks and curricula created and validated by humans. The authoritative appearance of GenAI text may mislead young learners who do not have sufficient prior knowledge to be able to recognize inaccuracies or to question it effectively. Whether learners' engagement with unvalidated content should be recognized as 'learning' is also contestable.

The resultant concentration on aggregated second-hand information may also reduce learners' opportunities for constructing knowledge through proven methods such as directly perceiving and experiencing the real world, learning from trial and error, performing empirical experiments, and developing common sense. It may also threaten the social construction of knowledge and the fostering of social values through collaborative classroom practices.

6.4 Homogenized responses versus diverse and creative outputs

GenAI narrows plural narratives as the outputs generated tend to represent and reinforce dominant viewpoints. The resulting homogenization of knowledge limits pluralistic and creative thinking. The increased dependency of teachers and students on GenAI tools to seek suggestions may lead to the standardization and conformity of responses, weakening the value of independent thought and self-directed inquiry. The potential homogenization of expression in written pieces and artwork can limit learners' imagination, creativity and alternative perspectives of expressions.

GenAI providers and educators need to consider the extent to which EdGPT might be developed and used to foster creativity, collaboration, critical thinking and other higher-order thinking skills.

6.5 Rethinking assessment and learning outcomes

The implications of GenAI for assessment go far beyond the immediate concerns about learners cheating on written assignments. We must contend with the fact that GenAI can produce relatively well-organized papers and essays and impressive works of art, and can pass some knowledge-based exams in certain subject areas. We therefore need to rethink what exactly should be learned and to what ends, and how learning is to be assessed and validated.

Critical discussion by educators, policy-makers, learners and other stakeholders need to consider the following four categories of learning outcomes:

Values: The values required to ensure the human-centred design and use of technology are central to the rethinking of learning outcomes and their assessment in the digital era. In revisiting the purpose of education, the values that inform the way in which technology relates to education should be made explicit. It is through this normative lens that learning outcomes and their assessment and validation need to be iteratively updated to respond to the increasingly pervasive use of technology, including AI, in society.

Foundational knowledge and skills: Even in the domains of competencies where GenAI tools can do better than humans, learners will still need sound foundational knowledge and skills. Foundational literacy, numeracy and basic scientific literacy skills will remain key for education in the future. The scope and nature of these foundational skills will need to be regularly revisited to reflect the increasingly AI-rich environments we live in.

Higher-order thinking skills: Learning outcomes will need to include skills required to support higher-order thinking and problem solving based on human-AI collaboration and the use of GenAI-generated outputs. These may include understanding the roles of factual and conceptual knowledge in grounding higher-order thinking, and the critical evaluation of AI-generated content.

Vocational skills needed to work with AI: In the domains where AI can do better than humans and is automating task units, human learners need to nurture new skills that enable them to develop, operate and work with GenAI tools. The redesign of learning outcomes and educational assessment will need to reflect the vocational skills required for the new jobs created by AI.

6.6 Thinking processes

The most fundamental perspective of the long-term implications of GenAI for education and research is still about the complementary relationship between human agency and machines. One of the key questions is whether humans can possibly cede basic levels of thinking and skill-acquisition processes to AI and rather concentrate on higher-order thinking skills based on the outputs provided by AI.

Writing, for example, is often associated with the structuring of thinking. With GenAI, rather than starting from scratch to plan the aims, scope and outline of a set of ideas, humans can now start with a well-structured outline provided by GenAI. Some experts have characterized the use of GenAI to generate text in this way as 'writing without thinking' (Chayka, 2023). As these new GenAI-assisted practices become more widely adopted, established methods for the acquisition and assessment of writing skills will need to adapt. One option in the future is that the learning of writing may focus on building skills in planning and composing prompts, critical evaluation of the GenAI outputs, and higher-order thinking, as well as on co-writing based on GenAI's outlines.

Concluding remarks

From the perspective of a human-centred approach, AI tools should be designed to extend or augment human intellectual abilities and social skills, and not undermine them, conflict with them or usurp them. It has long been expected that AI tools can be further integrated as part and parcel of the tools available to humans to support analysis and action for more inclusive and sustainable futures.

For AI to be a trustable part and parcel of human-machine collaboration – at individual, institutional and system levels – the human-centred approach informed by the 2021 UNESCO *Recommendation on the Ethics of AI* is to be further specified and implemented according to the specific characteristics of emerging technologies such as GenAI. Only in this way can we ensure that GenAI becomes a trustworthy tool for researchers, teachers and learners.

While GenAI should be used to serve education and research, we all need to be cognizant that GenAI might also change the established systems and their foundations in these domains. The transformation of education and research to be triggered by GenAI, if any, should be rigorously reviewed and steered by a human-centred approach. Only by doing so can we ensure that the potentials of AI in particular, and all other categories of technologies used in education more broadly, enhance human capabilities to build inclusive digital futures for all.

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Endnotes

1 GenAI models became available to researchers and other interested parties far earlier than ChatGPT. For example, in 2015 Google released what they called 'DeepDream' (https://en.wikipedia.org/wiki/DeepDream).

2 See https://chat.openai.com

3 For an explanation of AI techniques and technologies and their relationship, see UNESCO, 2022b, pp. 8-10.

4 Note that, because GenAI is still relatively new, different companies often use these terms in different ways, and sometimes use different words to mean the same thing.

5 There is concern that the data used to train future iterations of OpenAI GPT will include substantial amounts of text generated by previous versions of GPT. This self-referential loop might contaminate the training data and thus compromise the capabilities of future GPT models.

6 NB OpenAI, the company that developed the GPTs in this table, has not publicly released detailed information about GPT-4 (The Verge, 2023a). In fact, the number of parameters has been debunked by OpenAI's CEO (The Verge, 2023b). However, the figures included here have been reported by a number of outlets (for example, see E2Analyst, 2023). In any case, the main takeaway is that GPT-4 is built on a massively larger dataset and uses a massively larger number of parameters than GPT-3.

7 See https://crfm.stanford.edu/2023/03/13/alpaca.html

8 See https://bard.google.com

9 See https://writesonic.com/chat

10 See https://yiyan.baidu.com/welcome

11 See https://huggingface.co/chat

12 See https://www.jasper.ai

13 See https://ai.facebook.com/blog/large-language-model-llama-meta-ai

14 See https://open-assistant.io

15 See https://www.alizila.com/alibaba-cloud-debuts-generative-ai-model-for-corporate-users

16 See https://you.com

17 See https://www.chatpdf.com

18 See https://elicit.org

19 See https://www.perplexity.ai

20 See https://tools.zmo.ai/webchatgpt

21 See https://www.compose.ai

22 See https://www.teamsmart.ai

23 See https://wiseone.io

24 See https://www.microsoft.com/en-us/bing

25 See https://www.craiyon.com

26 See https://openai.com/product/dall-e-2

27 See https://dream.ai/create

28 See https://www.fotor.com/features/ai-image-generator

29 See https://www.midjourney.com

30 See https://creator.nightcafe.studio

31 See https://writesonic.com/photosonic-ai-art-generator

32 See https://elai.io
33 See https://www.gliacloud.com
34 See https://pictory.ai
35 See https://runwayml.com
36 See https://www.aiva.ai
37 See https://boomy.com
38 See https://soundraw.io
39 See https://www.voicemod.net/text-to-song
40 See https://openai.com/research/gpt-4
41 See https://www.educhat.top and https://www.mathgpt.com
42 See https://www.educhat.top
43 See https://www.mathgpt.com
44 There are a few exceptions, such as Hugging Face, a group that is dedicated to open-source AI development.
45 See, for example, calls from Google (2023a) and OpenAI (Bass and Metz, 2023).
46 For one project to regulate AI see the European Commission's draft AI Act (2021).
47 The review was based on data collected from a UNESCO survey distributed to its 193 Member States on the governmental use of AI in education (UNESCO, 2023c), the OECD AI Policy Observatory, and Stanford University's AI Index Report (Stanford University, 2023), and first-hand information elicited from a group of international experts.
48 See https://unctad.org/page/data-protection-and-privacy-legislation-worldwide
49 From the mapping, as of April 2023, the following countries had published national strategies on AI: Argentina, Australia, Austria, Belgium, Benin, Brazil, Canada, Bulgaria, Chile, China, Columbia, Cyprus, Czechia, Denmark, Egypt, Estonia, Finland, France, Germany, Hungary, Iceland, India, Indonesia, Ireland, Italy, Japan, Jordan, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mauritius, Mexico, Netherlands (Kingdom of the), Norway, New Zealand, Oman, Peru, Poland, Portugal, Philippines, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Serbia, Singapore, Slovenia, Spain, Sweden, Thailand, Türkiye, Tunisia, United Arab Emirates, United Kingdom, United States, Uruguay and Viet Nam. Additionally, some countries have incorporated AI strategies within broader ICT or digital strategies, including Algeria, Botswana, Kazakhstan, Kenya, Sierra Leone, Slovakia, Switzerland and Uganda.
50 According to a rapid review of all national AI strategies (UNESCO, 2023b), over 40 strategies have dedicated sections on the issue of ethics.
51 According to a rapid review of all national AI strategies (UNESCO, 2023b), around 45 strategies have dedicated sections on the issue of education.
52 See https://openai.com/policies/terms-of-use
53 In some countries, a teacher will have a teaching assistant (TA) whose role is to spend time answering the questions of individual students covering the course material. GenAI might be used to develop a generative twin of a TA, which can be supportive to the students and other teachers, but may also cause some negative issues (e.g. around social relationships in the classroom).

unesco
United Nations
Educational, Scientific
and Cultural Organization

Guidance for generative AI in education and research

This Guidance aims to support the planning of appropriate regulations, policies and human capacity development programmes to ensure that generative artificial intelligence (GenAI) becomes a tool that genuinely benefits and empowers teachers, learners and researchers. It explains the AI techniques used by GenAI and maps out a list of GPT models that are made publicly available, especially those under open-source licences. It also opens a discussion on the emergence of EdGPT – GenAI models that are trained with specific data to serve educational purposes. Furthermore, it summarizes some of the key controversies around GenAI, from worsening digital poverty to the homogenization of opinions, and from deeper deepfakes to issues of copyright. Based on a humanistic vision, the Guidance proposes key steps for the regulation of GenAI tools, including mandating the protection of data privacy and setting an age limit for independent conversations with GenAI platforms. To guide the proper use of the tools in education and research, this Guidance proposes a human-agent and age-appropriate approach to the ethical validation and pedagogical design processes.

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4 QUALITY EDUCATION

Sustainable Development Goals

Appendix 2

POLICIES AND PROCEDURES

LINCOLN UNIVERSITY
TE WHARE WĀNAKA O AORAKI

LU Generative AI Policy

Last Modified: New
Review Date: 01/07/2027
Business Owner: Provost
Approval Authority: Vice-Chancellor

1. Introduction

Lincoln University is committed to the advancement of knowledge and education, and upholding our Te Tiriti o Waitangi commitments, in support of land-based sectors through innovation and partnerships. We acknowledge the disruptive nature of some digital technologies, specifically the generative potential of 'artificial intelligence' (hereafter generative AI) as a capability within an emerging suite of tools that enable transformational capabilities across many sectors.

Generative AI has the potential to profoundly impact the ways we teach, learn, assess, and access education, as well as impact the creation, understanding and dissemination of new knowledge through research. These impacts are likely to provide significant beneficial outcomes including increased efficiencies that must be balanced against a suite of potentially negative impacts including challenges to academic integrity.

We must also acknowledge that generative AI is being rapidly embraced in the global workforce and therefore the University has an obligation to train our graduates in the appropriate use of generative AI tools to ensure they are prepared for the workforce in a fashion that demonstrates academic integrity and ethical awareness and represents the Lincoln University Graduate Profile.

2. DEFINITIONS

The following terms are used in this policy:

- **Artificial Intelligence (AI)** – Software that enables machines to complete tasks that imitate intelligent behaviour.
- **Machine Learning** – Computers take information from available data enabling them to develop and adapt based on patterns and data.
- **Large Language Model** – Enables computers to recognise, understand and process our languages.
- **Generative AI** – A machine that uses AI to generate content, which includes a variety of outputs such as images, text, videos etc. in response to human requirements based off a prompt.
- **Prompt** – The question or information that is given to the AI by the human to highlight and inform what they want it to produce.

3. POLICY

Generative AI (e.g., ChatGPT, Google Gemini, Microsoft Co-Pilot) has emerged as one of the significant disruptors of the 21st century. Lincoln University acknowledges the rapid rise and use of generative AI in many sectors providing enhanced efficiencies and innovations and the impacts

already observed in the Higher Education sector. This policy provides a framework for the consideration and use of generative AI following a suite of principles that uphold our core values, responsibilities and commitments.

Lincoln University wishes to ensure that generative AI tools are used appropriately in alignment with our values and obligations as outlined in the Principles:

PRINCIPLES

This policy is grounded in our core values in the engagement with digital technologies including generative AI and upholds the following principles:

- **Integrity (Matatika)**: We will act honestly, ethically, transparently and responsibly in our academic endeavours including
  - submitting work that is our own;
  - work that relies on existing knowledge or knowledge generated by others is appropriately attributed;
  - research that follows ethical principles that protect subjects;
  - submitted work follows instructions including using generative AI only when explicitly allowed and to the extent that instructions specifically allow.
- **Leadership (Rakatirataka)**: We will
  - promote best practice for both staff and students and share and engage with stakeholders, external partners, students and professional and academic staff consideration for the acceptable use of generative AI;
  - exploration of new applications of generative AI to enrich and enable teaching, learning, research and organisation efficiencies.
- **Guardianship (Kaitiakitaka)**: We will seek to
  - ensure the responsible and respectful use of all knowledge, especially indigenous knowledge Mātauraka Māori, and associated resources.
  - promote the privacy and security of data to protect individuals' rights, indigenous rights, and institutional security;
  - acknowledge and address the sustainability challenges associated with generative AI intensive energy and resource use.
- **Accessible (Tohatoha)**: We will work to ensure staff and students are AI-aware and enabled to understand, use and where appropriate have equitable access to generative AI tools in education and research.

Generative AI tools should be used to the benefit of students and staff in achieving education and research outcomes – enhancing teaching and research practice within an ethical framework, while preparing students for future work and developing innovative and efficient teaching and research methods.

The Guidelines established under this policy framework will provide specific and contextual advice to staff and students. The Guidelines will adhere to the following statements of Prohibited Data Use noting that in some instances prohibited data may be used in services solely controlled by Lincoln University:

PROHIBITED DATA USE:

- No information that violates the Privacy Act should be used with generative AI unless specifically reviewed and assured for Data Privacy by the Privacy Officer.

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- No confidential, proprietary, or otherwise sensitive information may be entered into models or prompts unless specifically reviewed and assured for Data Privacy by the Privacy Officer.
- No non-public information such as proprietary, copyrighted, or unpublished research owned by a third-party; legal analyses or advice; commercially sensitive material; recruitment, personnel and disciplinary decision-making materials; instructional materials owned by a third-party, may be entered into models or prompts unless specific consents are granted and reviewed by the LU General Counsel.
- Note that mātauranga Māori and Māori data a taonga protected under Te Tititi o Waitangi and the conditional rights and obligations of use are contingent on fulfilling kaitiakitanga obligations.
- Prompts that violate legal or LU Policy, including harassment, discrimination, and other illegal activities are expressly prohibited. Some generative AI tools explicitly forbid there use such as OpenAI's usage policy document.

Lincoln University will seek to support staff and students to become generative AI literate, and to ensure that generative AI tools are used in appropriate fashion in the learning and research experience. The University will engage regularly with other Higher Education providers and Lincoln University stakeholders to understand generative AI use and needs and share best practice.

We note that generative AI tools will continue to develop rapidly, and the capabilities are likely to increase over time. As a consequence, this policy provides a high-level framework that demonstrates Lincoln University's approach to generative AI tools, including the establishment of guidelines for staff and students for teaching and research contexts that will be flexible and regularly reviewed.

The guidelines developed under this Policy will ensure that teaching and research that employs generative AI will maintain academic integrity and rigour.

This policy applies to all staff and students, and external research collaborators of Lincoln University, and applies to all education and research activities that utilise generative AI tools.

4. OUTCOMES

This policy seeks:

- To create a general framework for Lincoln University that establishes the principles for our approach to generative AI including the responsibilities of staff and students.
- To ensure that the allowable use of generative AI in teaching and research align to a consistent suite of principles and values of the University, noting that generative AI use is many-faceted and rapidly changing. Therefore, a suite of Guidelines will be developed in consultation with staff and students for teaching and research.
- Teaching and Learning - To acknowledge that academics are responsible for the clear communication of when and what generative AI use is allowed through their course outlines, assessment instructions and that their instructions are clear and consistent.
- Research and Research Training - To highlight the critical responsibilities of staff and students to adhere to the highest levels of academic integrity when undertaking research and research training.

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- Decision-making - To note that generative AI provides many opportunities for innovative teaching and research, and achieving efficiencies however generative AI should not be used to make decisions but as a tool to inform and support decision-making.

5. LINKS TO PROCEDURE(S) AND OTHER RESOURCES

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Vice-Chancellor's Office

Version:

Conflict of Interest Policy & Procedure Scheduled Review

Author/s: Nathaniel Heslop, Timothy Lester
SLT Authorizer: Grant Edwards

Date: 10/12/2024

1. Purpose

The purpose of this report is to present a review of the existing Conflicts of Interest Policy, Conflicts of Interest Procedure, and Council Members' Conflict / Disclosure of Interest Policy in accordance with Lincoln University's standard policy review process.

2. Content

Appendix A – Comparison Table summarizing changes to the Conflicts of Interest Policy and Conflicts of Interest Procedure
Appendix B – Conflicts of Interest Policy (*tracked changes*)
Appendix C – Conflicts of Interest Procedure (*tracked changes*)
Appendix D – Council Members Conflict / Disclosure of Interest

3. Recommendations

That Council:

1. **RECEIVE** the information in this report.

2. **NOTE** the provisions in the Council Members Conflict / Disclosures of Interest Policy are redundant as adequate provisions addressing disclosure of a conflict are in the Conflict of Interest Policy and Conflict of Interest Procedure.

3. **REVOKE** the Council Members Conflict / Disclosures of Interest Policy with immediate effect.

4. **APPROVE** the revised Conflict of Interest Policy & Conflict of Interest Procedure as attached in Appendixes B & C.

4. Executive Summary

The Conflict of Interest Policy & Conflict of Interest Procedure were put in place to ensure that in making a decision for, or on behalf of Lincoln University, any conflict of interest is managed appropriately, and individuals act in the best interests of the University and the public interest.

The Conflicts of Interest Policy & Conflicts of Interest Procedure:

4.1 Were last modified in September 2021 and scheduled for a review on 30 September 2024.

4.2 In November 2024 the Council Secretary discussed the Conflicts of Interest Policy & Procedure with the Vice Chancellor and General Counsel and made substantive changes following a review of the Auditor General's best practice guidelines.

4.3 A policy and procedure to provide instruction on the disclosure and management of a conflict of interest continues to serve a purpose and should be retained with changes to address recommendations from an Internal Auditor program of work on Fraud Awareness.

Strategic Considerations

- Are there conflicts of interest that Council deems to be unmanageable, and if so, should those conflicts be explicitly prohibited in the policy document?
- Does the proposed policy create an environment where individuals feel comfortable disclosing conflicts without fear of undue repercussions?
- Does Council have sufficient assurance that staff understand and comply with the disclosure requirements where a conflict of interest arises?

It is recommended that Council approve the updated Conflicts of Interest Policy and Procedure. A Comparison Table providing a high-level summary of those changes can be found in Appendix A. The revisions do not change expectations on staff, however, it clarifies roles and responsibilities. It is similar to conflict of interest frameworks adopted by the University of Canterbury and University of Auckland.

Tracked changes to the Conflicts of Interest Policy and Conflicts of Interest Procedure can be found in Appendix B & Appendix C.

These changes follow a series of decisions made by the Senior Leadership Team in response to recommendations made by the Internal Auditor following a programme of work to review the understanding and management of conflicts of interest at Lincoln University in 2024.

As a result of this audit the Internal Auditor made several recommendations:

1. Review the Conflicts of Interest Policy and consider whether it is appropriate to have two conflict of interest policy statements.
2. Develop an Interest Register for each University committee
3. Provide training and resources to upskill staff about identifying, disclosing, and managing a conflict of interest
4. Critically investigate the merits of using a centralized Interest Register
5. Conduct regular (annual) testing of governance members interest disclosures

The Senior Leadership Team considered the Internal Auditors' recommendations and agreed to implement recommendations 1-3, and 5.

Is it appropriate to have two conflict of interest policy statements?

In the Lincoln University Policy Library there are several policy and procedure statements which cover conflict of interests:

- Council Members' Conflict/Disclosure of Interest Policy
- Conflict of Interest Policy
- Conflict of Interest Procedure

The management of a conflict of interest for a Council Member is mentioned in both the Conflict of Interest Policy and Council Members' Conflict/Disclosure of Interest Policy.

The management of conflicts of interest specifically for Council members is outlined in the Council Members Conflict/Disclosure of Interest Policy. There is a particular focus in this policy of the application of the Local Authorities (Members' Interests) Act 1968 as it relates to contracts between the University (including Council) and its members. This act prohibits a Council Member holding office if they have (a) a financial contract with the University that exceeds an annual threshold of $25,000, or (b) a 10% shareholding or hold a key management/governance role in an external party that has a contract with the University. If either of these situations arise the member is unable to be a Council Member without the intervention of the Auditor General.

Prior to their appointment, a member of Council is required to confirm they are not prohibited from becoming a member of Council.

Based on the Internal Auditor's recommendation, whether any such contractual arrangement exists for a Council Member will be regularly tested by governance staff in relation to the criteria set out in the Local Authorities (Members' Interests) Act 1968.

The Conflicts of Interest Policy also contains provisions requiring a member of the University Council to proactively disclose their interests, and how a disclosed interest should be managed. There is unnecessary duplication between the two policy statements.

Considering the above it is recommended that the Council Members' Conflict/Disclosure of Interest Policy be revoked.

Develop an Interest Register for each Committee

Lincoln University has over twenty council and committee groups with documented terms of reference / standing orders. All Council and Committees of Council have a standing agenda item including the relevant register of interests and asking for a declaration of conflicts to any item included in the agenda pack.

The General Counsel has written to all secretariat supporting a committee at Lincoln University and outlined the requirement that a consistent approach be used, and that every agenda contain a statement reminding members that they have a responsibility to disclose a conflict of interest if it arises.

Should a central Interest Register be implemented?

The Senior Leadership Team weighed the administrative burden and complexity of implementing a centralized interests register against the other actions and deemed the cumulative effect of implementing recommendations 1-3, and 5 will be sufficient to provide a

robust framework to disclose and manage conflicts of interest that may arise at Lincoln University from time to time.

Further the management of conflicts should be at an individual level, as this is where the knowledge and ability to oversee conflicts on a day-to-day basis sit. Accordingly, outside of a Council or Committee meeting, it is proposed that conflicts are managed between an individual and their line manager.

5. Resource Implications

There are no resource implications in approving the updated Conflicts of Interest Policy & Procedure.

6. Strategic and Policy Framework Implications

Strategic alignment with priority objective areas in Lincoln University Strategy 2019-2028	Goal 1	A distinctive Aotearoa New Zealand end-to-end student experience	☐
	Goal 2	Improved assets and sustainable operating models	☐
	Goal 3	A culture which stimulates and inspires staff and students	☑
	Goal 4	A world-class research and teaching precinct	☐
	Goal 5	An organisation focussed on meaningful partnerships	☐
	Goal 6	Facilitating Growth	☐

Strategic Alignment

This report supports the Lincoln University Strategy 2019-2028 by confirming procedures are in place to ensure decision making is in the best interests of the University.

Policy Consistency

This decision is consistent with the University's Plans and Policies.

7. Next Steps

If approved, the amended documents will be uploaded to the Policy Library, and the revoked policy removed from the Policy Library.
A series of lunch and learns will be scheduled for staff to attend to familiarize themselves with the disclosure and management of conflicts.
In time some guidance notes may be prepared that will include common scenarios and answers to frequently asked questions to assist understanding and application of the Policy.

Appendix A: Comparison Table for changes

Conflict of Interest Policy

Section / Topic	Previous Policy	Updated Policy	Reason for Change
2 - Organisational Scope	This policy applies to all members of the Lincoln University Council, members of University committees, University staff, board members, or trustees of subsidiaries, independent contractors to the University, adjunct and visiting staff, visiting scholars and interns, emeritus professors, and any other persons providing services to the University.	This policy applies to all Members of the University.	Member is a defined term in the policy. This removes a duplication of identical content.
4 - Definitions – Conflict of Interest	A conflict of interest exists where the responsibilities of a member of the University community could be affected by some other separate interest or duty that the member may have in relation to a particular matter. That other interest or duty might exist because of a relationship or role that the member has, or	A conflict of interest is any situation we are a member's duty or responsibility to the University conflicts or could be seen to conflict with a personal interest. A conflict can be 'actual', where the conflict already exists, 'potential' where the conflict is about to happen, or could happen, and 'perceived', where other people may reasonably think	Simplified definition that aligns with Office of the Auditor General of actual, potential, or perceived conflict. Delete explanation of common law of bias.

	something the member has said or done. Conflicts are governed by the common law of bias; whether a reasonably fair minded lay observer would reasonably apprehend that the decision maker might not bring an impartial mind to the resolution of the matter.	that a person may not be impartial in carrying out their duties and/or making a decision.	
4 - Definitions – Relevant Manager	New	Means: (i) for a staff member, their line manager, (ii) for the University Council or its Committees, or company boards, the relevant chair, (iii) for chairs the Council Secretary, (iv) for the Vice Chancellor, the Chancellor, (v) for the Chancellor, the chair of the Audit, Risk, and Assurance Committee, and (vi) for a contractor, manager, consultant, or other service provider, the relevant head of department or service unit director who has responsibility for the same.	This definition provides a framework for who individuals should provide a Conflict of Disclosure Form to. A Relevant Manager is responsible for retaining a copy of the Disclosure Form and forwarding the completed form to a new email address 'disclosures@lincoln.ac.nz' that will be monitored by the General Council and Council Secretary.
5.2(a) & (b) - Disclosure of Interests	New	(a) each conflict of interest situation must be disclosed in writing as soon as reasonably practicable after it is identified. It is the responsibility of the person to whom the conflict of interest relates to make this disclosure.	Confirms that conflicts need to be recorded in writing, and provides a framework creating a responsibility on the person who has a conflict to document that and submit to the Relevant Manager for review.

		(b) Conflicts of interest must be disclosed using the Conflict of Interest Disclosure form. (unless an alternative form or method of disclosure is provided), which the member must submit to the relevant manager to review.	
5.2 (a)–(e) - Disclosure of Interests	These paragraphs attempted to outline specific conflicts, i.e. financial or relational conflicts, and address how each situation should be managed according to the position. The six paragraphs attempted to inform the disclosure obligations of Council Members, SLT members, academic supervisors, staff members (in relation to employment) and staff members (in relation to other, unspecified, activities)	Deleted	These paragraphs have been replaced with a overarching obligation on Members of the University to declare and record in writing a conflict of interest.
5.2(f) - Compliance	Refers to Education Act 1989	Refers to sections in Education and Training Act 2020	Policy now refers to current legislation
5.3(a)-(d) - Conflicts of Interest Register	New	(a) All information disclosed in a Conflict of Interest Disclosure Form becomes part of the Conflicts of Interest Register. (b) The Council Secretary in conjunction with the Chancellor will retain a Conflicts of Interest Register	These sections confirm that a Written Conflict of Interest Disclosure Form becomes part of the Conflicts of Interest Register. The Council Secretary is responsible for maintaining a register for the Council and Committees of Council. Secretariat for other committees are responsible for maintaining a register for those for a.

		for Council and all Committees of Council and be responsible for ensuring that each relevant Conflicts of Interest Register is up to date. (c) Secretariat for each committee that is not a Committee of Council will retain a Conflict of Interest Register for members of that Committee, and be responsible for ensuring that each relevant Conflicts of Interest Register is up to date. (d) When a Relevant Manager receives a Conflicts of Interest Disclosure Form for any other Member they shall retain that form, along with all detailed noted from meetings discussing the management of the disclosed conflict and forward an electronic copy of those documents to disclosures@lincoln.ac.nz.	A Relevant Manager will retain a copy of a Conflict of Disclosure Form presented to them, and also forward a copy to disclosures@lincoln.ac.nz

5.4 - Privacy	New	Personal information contained within the Conflicts of Interest Register will be used strictly as necessary to appropriately manage conflicts of interests and in all events, be used, stored and disclosed in accordance with the University's Privacy Policy and the Conflict of Interest Procedures.	This clause confirms that this information can only be used to check conflicts of interest.
Disputes Resolution	In the event of a dispute arising between persons or organizations (including the University itself) having an interest in decisions or processes governed by this policy, resolution shall be sought in the following way: (a) On notification of the dispute, in writing, to the University, the parties will use best endeavours to resolve the dispute through negotiation. (b) Should the dispute remain unresolved within ten (10) working days, it will be referred to mediation. (c) If resolution still cannot be reached within thirty (30)	Deleted	This clause is not required. In discussion with the General Counsel it was decided to remove this section. If a staff member is affected by a decision where a conflict of interest is alleged, that will most likely be dealt with through provisions already in employment agreements or contracts for service (in the case of contractors). If a student is affected by a decision where a conflict of interest is alleged existing dispute resolution pathways will be more appropriate. If an external party is affected by a decision where a conflict of interest is alleged, there is most likely a contractual relationship in place that will articulate appropriate dispute resolution pathways.

	working days, then either party may refer the matter to arbitration in accordance with and subject to the Arbitration Act 1996. The arbitrator or arbitrators should be agreed upon by the parties and, failing agreement, shall be nominated by the President of the Arbitrators' and Mediators' Institute of New Zealand Inc. Such arbitration shall be regarded as final and binding.		
6 - Legislative Compliance			Removed legislation no longer referred to in the policy. Replaced legislation that has been repealed with current legislation.
7 - References	Deleted reference to guidance that is no longer included in the policy	Added guidance note to managing conflicts of interest in the public sector Added Gifts Policy	Added or removed policy or guidance notes to align with the current version of the Conflict of Interest Policy.

Conflict of Interest Procedure

Section / Topic	Previous Policy	Updated Policy	Reason for Change
3.1 - Management Responsibilities	Refers to Managers	Refers to Relevant Managers	Vernacular updated to reflect new definition of Relevant Manager in the Conflict of Interest Policy
3.3(a) – Managing a Conflict of Interest	As soon as a member becomes aware that they have a conflict of interest, they must declare it to their manager (refer: Appendix A Conflict of Disclosure Form).	As soon as a Member becomes aware that they have a conflict of interest they must declare it in writing to their Relevant Manager using the Conflict of Interest Disclosure Form (refer to Appendix A), unless another form or method of disclosure has been provided.	Includes updated vernacular as above and clarifies that a disclosure is to be in writing and recorded on the Conflict of Interest Disclosure Form (unless another form or method, i.e. email of disclosure is provided).
3.3(f) – Managing a Conflict of Interest	Any decision and action taken (by a manager) must be recorded in writing and filed on the Interests Register (VC Office).	Replaced with 3.3(h)	The Interest Register for conflicts that are not in a Council or Committee meeting is amorphous. The Relevant Manager will retain the Conflict of Disclosure Form for their reference. A copy will also be forwarded to disclosures@lincoln.ac.nz. This is a non-monitored shared-access email the General Counsel and Council Secretary will have access to.

3.5 Committee Meetings	Where a conflict of interest is disclosed and dealt with, a copy of the minutes of the Committee meeting must be forwarded to the Vice Chancellor's office for recording on the Interests Register	This text deleted from the procedure document.	There is a pre-existing requirement for any declared conflict of interest to be recorded in the minutes, along with how that conflict will be managed. The senior leadership team believe this is sufficient to manage the conflict, and a sufficient record will exist within the minutes.
Commercial Relationships	Entire paragraph deleted	Deleted	In discussion with the General Counsel it was decided that this provision is superfluous. The Conflict of Interest Policy provides a framework for who (the Relevant Manager) should receive a Conflict of Interest Disclosure Form. That form include a plan to manage the conflict, and can be escalated to the Relevant Manager's line manager if necessary.
Academic Supervision	Entire paragraph deleted	Deleted	As above.
3.7 – Undeclared Conflicts of Interest	Substantial changes to the paragraph	If any person is aware or suspects a conflict of interest has not been disclosed, they may raise this non-disclosure with the Relevant Manager. If a member is uncomfortable raising alleged the non-disclosure with the Relevant Manager, they may choose to make a disclosure in accordance with the University Protected Disclosures Policy, and be protected by the Protected Disclosures Act 2000.	This clause has been amended to remove a mandatory requirement on Members to declare any conflict of interest that is undisclosed as the onus is on a person with the conflict to make a disclosure. The clause is also amended to encourage a conversation with the Relevant Manager, however, if this is not possible a protected disclosure can be made. The General Counsel monitors the protected disclosures email address for Lincoln University.

3.8 – Contact	New	Provides guidance to staff on who to contact if they have a question about the Conflict of Interest Procedure	The General Counsel and Council Secretary are the first points of contact in relation to these procedures.
Conflict of Interest Disclosure Form		Removed 'potential or perceived' qualifications from a conflict of interest. Clarified that the form is to be retained by the Relevant Manager, and a copy forwarded to disclosures@lincoln.ac.nz Removed "or Committee member and Chair" from 'Part B: Proposed Action'	These changes are made to clarify that the Conflict of Interest Disclosure Form is to be retained by the Relevant Manager, with a copy forwarded to disclosures@lincoln.ac.nz Committee member or Chair removed from the form as any conflict, and management of that conflict, will be recorded in the minutes of the meeting.

POLICIES AND PROCEDURES

Conflict of Interest Policy

Last Modified: 30 September 2021
Review Date: 30 September 2024
Business Owner: Executive Director, People, Culture & Wellbeing
Approval Authority: Vice-Chancellor

1. Purpose

The purpose of this policy is to set out principles to ensure that in making decisions for, or on behalf of, Lincoln University ('the University'), Mmembers of the University Community proactively ~~exercise discretion in their personal and professional capacities so that they~~make decisions to disclose and manage any conflicts of interest, ~~are not in breach of fiduciary or good faith obligations,~~ and act in a manner consistent with institutional responsibilities and the public interest.

2. Organisational Scope

This policy applies to all Mmembers of the ~~Lincoln~~ University ~~Council; members of University committees; University staff; staff, board members or trustees of subsidiaries; independent contractors to the University; adjunct and visiting staff; visiting scholars and interns; emeritus professors; and any other persons providing services to the University~~.

3. Background

The University encourages its members to have diverse interests and contacts across the local, national and international communities. Collaborations between members and outside bodies are, generally speaking, both in the public interest and beneficial to the University.

It is possible however, that a member's interests may at times give rise to an actual, potential or perceived conflict of interest with their role and responsibilities at the University.

Ensuring that conflicts of interest are properly managed is crucial to reducing legal and reputational risk and demonstrating the integrity of individual members and of the University. Conflicts of interest that are not properly managed have the potential to damage the reputation of individual members and of the University as a whole.

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4. Definitions

For purposes of this policy/procedure, unless otherwise stated, the following definitions shall apply:

Conflict of Interest	A conflict of interest ~~exists where the responsibilities of a member of the University community could be affected by some other separate interest or duty that the member may have in relation to a particular matter. That other interest or duty might exist because of a relationship or role that the member has; or something the member had said or done.~~ ~~Conflicts of interest are governed by the common law of bias: whether a reasonably informed fair-minded lay observer would reasonably apprehend that the decision-maker might not bring an impartial mind to the resolution of the matter.~~is any situation where a Members duties or responsibilities to the University conflict, or could be seen to conflict, with a personal interest. A conflict can be '**actual**', where the conflict already exists, '**potential**', where the conflict is about to happen, or could happen, and '**perceived**', where other people may reasonably think that a person may not be impartial in carrying out their duties and/or making a decision.
Pecuniary Interest:	The test used by the Office of the Auditor-General is whether, if the matter were dealt with in a particular way, discussing or voting on that matter could reasonably give rise to an expectation of a financial gain or loss for the member concerned.
Non Pecuniary Interest:	The test is whether, to a reasonably informed fair-minded observer, there is a real danger of bias on the part of a member of the decision-making body, in the sense that he or she might unfairly regard (with favour or disfavour) the case of a party to the issue under consideration.
Member/Member of the University Community:	Member of Lincoln University, including members of Council; members of University committees; University staff; staff, board members or trustees of subsidiaries; independent contractors to the University; adjunct and visiting staff; visiting scholars and interns; emeritus professors; and any other persons providing services to the University.
Multiple relationships:	A multiple relationship occurs when a member is in a professional role with another person and: (a) at the same time is in another role with the same person; (b) at the same time is in a relationship with a person closely associated with, or related to, the person with whom the member has the professional relationship; or (c) wishes or promises to enter into another relationship in the future with the person or a person closely associated with, or related to, the person.
Relationship:	A connection that could affect how other people view the member's impartiality. For example, if the matter involves or affects a family member, or an organisation to which the member belongs, or a business of which the member is an employee.

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Relevant Manager	Means: (i) for a staff member, their line manager, (ii) for the University Council or committees, or company boards, the relevant chair, (iii) for chairs, the University Registrar, (iv) for the Vice Chancellor, the Chancellor, (v) for the Chancellor, the Chair of the Audit, Risk, & Assurance Committee, and (vi) for a contractor, manager, consultant or other service provider, the relevant head of department or service unit director who has responsibility for the same.
University:	Lincoln University and its subsidiaries.
Committee:	A group of people constituted as a committee by the Chancellor or Vice-Chancellor or delegate to carry out duties in accordance with specified terms of reference.

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5. Policy Content

5.1 ~~Identification of~~Disclosing a Conflict~~s~~ of Interest

~~(a)~~ Members are obliged to ~~ensure that any identified~~disclose each conflict of interest situation ~~is disclosed~~ and manage~~d~~ that conflict in accordance with this policy and the associated Procedures for Managing Conflicts of Interest.

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~~(c)~~(a) The guiding principles and responsibilities for identification and management of conflicts of interest in any situation are:

(i) the member should identify and assess any actual, perceived or potential conflicts of interest;

(ii) those conflicts should be disclosed as soon as reasonably practicable after they are identified; and

(iii) unless the group or person to whom the disclosure is made decides otherwise, after an assessment of the facts, the member should withdraw from involvement in any decision or exercise of discretion on behalf of the University.

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5.2 Disclosure of Interests

(a) Each conflict of interest situation must be disclosed in writing as soon as reasonably practicable after it is identified. It is the responsibility of the person to whom the conflict of interest relates to make this disclosure.

(b) Conflicts of interest must be disclosed using the Conflict of Interest Disclosure Form (unless an alternate form or method of disclosure is provided), which the Member must submit to the Relevant Manager to review.

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~~(a) Members of the University Council are required to disclose as best they can a list of external interests which may raise issues of conflict of interest and to update this list as necessary. The supplying of information does not constitute a disclosure as required in other sections of this document. Each conflict of interest must be dealt with as it arises and the onus is on the member to disclose. Disclosures of interests will be securely held in an Interests Register maintained by the Secretary to the Council, updated on a yearly basis or as required.~~

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~~(c) The Vice-Chancellor requires members of the Senior Management Group, and may~~

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~~require other members employed by the University, to disclose as best they can a list of external interests which may raise issues of conflict of interest. The supplying of information does not constitute a disclosure as required in other sections of this document. Each conflict of interest must be dealt with as it arises and the onus is on the member to disclose. Disclosures of interests will be securely held in an Interests Register maintained in the Office of the Vice-Chancellor and updated on a yearly basis, or as required.~~

Compliance

~~(a)~~(d) Statutory and governance requirements must ~~be observed at all times~~ always be observed and a member who has made a disclosure shall not (unless the group or person to whom the disclosure is made decides and records otherwise):

~~(i)~~i. be present during any deliberation with respect to the matter at hand; or
~~(ii)~~ii. take part in any decision with respect to that matter; or
~~(iii)~~iii. continue activities associated with the matter whether administrative or otherwise.

~~(b)~~(e) A breach of this policy by a member who is a ~~n~~University employee may constitute misconduct or serious misconduct and, depending on the circumstances, be dealt with under the Disciplinary Policy and Procedure.

~~(c)~~(f) Under Sections 295 & 296 ~~197~~ of the Education and Training Act ~~1989~~ 2020 the Vice-Chancellor may delegate functions and powers to staff holding particular positions. These general delegations are recorded in the Delegations of Authority Policy. Conflict of interest situations will normally be managed in accordance with these delegations. From time to time, the Vice-Chancellor may delegate powers, in writing, for the management of a particular conflict of interest situation to a named member of staff.

(g) Where any person who is a manager wishes to sub-delegate the power to manage a particular conflict of interest situation they may do so only after the Vice-Chancellor has approved the sub- delegation in writing to a named member of staff.

5.3 Conflicts of Interest Register

(a) All information disclosed in a Conflict of Interest Disclosure Form becomes part of the Conflicts of Interest Register.

(b) The Council Secretary in conjunction with the Chancellor will retain a Conflicts of Interest Register for Council and all Committees of Council and be responsible for ensuring that each relevant Conflicts of Interest Register is up to date.

(c) Secretariat for each committee that is not a Committee of Council will retain a Conflict of Interest Register for members of that Committee, and be responsible for ensuring that each relevant Conflicts of Interest Register is up to date.

(d) When a Relevant Manager receives a Conflicts of Interest Disclosure Form for any other Member they shall retain that form, along with all detailed noted from meetings discussing the management of the disclosed conflict and forward an electronic copy of those documents to disclosures@lincoln.ac.nz.

5.4 Privacy

Personal information contained within the Conflicts of Interest Register will be used strictly as necessary to appropriately manage conflicts of interests and in all events, be used

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stored and disclosed in accordance with the University's Privacy Policy and the Conflict of Interest Procedures.

~~**Disputes Resolution**~~

~~5.3~~5.5 Types of Conflicts of Interest

Note: The descriptions given below are indicative and not exhaustive.

Pecuniary Interest: a disclosure of interest is required when:

(a) A member becomes involved with a matter which relates to duties undertaken as a consultant at the University or in the exercise of rights of private professional practice.

(b) A member is a consultant, director, shareholder or an employee of, or to, a third party in some current or proposed relationship with the University.

(c) A member is providing professional advice or services to a third party in some current or proposed relationship with the University.

(d) A decision of the University might affect a consulting or other relationship (e.g. Board Membership, directorship) of a person with a third party.

(e) A member is involved in a third party which is active in the same sphere of activity as the University or one of its subsidiaries.

(f) A member has a close relationship with a person who in their own right or through a company is transacting business with the University.

(g) A member has accepted gifts (including loans of money or property) from a party seeking academic or other advancement in the University, to do business with the University, or that party provides services which compete with those provided by the University.

(h) A member is on a non-University Committee, Government Board or similar where there is, for example, control over allocation or awarding of research funding, receivable by the University or any other benefit income or consequence flowing to the University.

(i) A member is on a committee which is to consider an appointment, scholarship or other matter for which a person in their family, or a person with whom the member has (or has had) a close relationship, is an applicant or candidate.

Non-Pecuniary Interest: a disclosure of interest is required when:

(a) Two members are in a personal or family relationship and they are seeking to jointly supervise a research degree candidate. This relationship may also be perceived as a position of possible bias.

(b) A member enters a personal relationship, or has a familial relationship, with a research student under their supervision. This relationship may also be perceived as a position of possible bias.

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Bias: a conflict of interest may arise, or may be perceived, when:

(a) A member has publicly stated, or is well known as having, a view on a particular issue and where participation in a decision touching or concerning that view, might suggest the member has predetermined the issue.

(b) A member shows an unwillingness to fairly consider the view of ~~others, or~~others or is not prepared to be persuaded by evidence or argument, or takes a fixed view where that view precludes a balanced consideration.

(c) A member is associated with a party which takes actions that affect the University through the various agreements and alliances the University has with third parties (*alliances* would include arrangements such as Memoranda of Understanding).

6. Legislative Compliance

The legislation governing this policy is the:

- ~~Arbitration Act 1996~~
- ~~Companies Act 1996~~
- ~~Local Authority (Members) Interests Act 1968~~
- Public Service Act 2020

7. References

- Sensitive Expenditure Policy
- Conflict of Interest Procedure
- Code of Conduct
- Delegations Authority Policy
- Protected Disclosures Policy
- Gifts Policy
- ~~Guidance for members of local authorities about the Local Authorities (Members' Interests) Act 1968~~Managing Conflicts of Interest: a guide for the public sector
  - ~~Office of the Auditor General~~

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POLICIES AND PROCEDURES

LINCOLN UNIVERSITY
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Conflict of Interest Procedure

Last Modified:	30 September 2021
Review Date:	30 September 2024
Business Owner:	Executive Director, People, Culture & Wellbeing
Approval Authority:	Vice-Chancellor

1. Purpose

The purpose of these procedures is to support the Conflict of Interest Policy and to provide members with clear direction for dealing with predictable conflict of interest situations, as well as a process for dealing with more difficult situations.

The procedures also detail the action to be taken following disclosure of a conflict of interest.

2. Organisational Scope

This procedure applies to all members of the University Community.

3. Procedures

3.1. Management Responsibilities

Relevant Managers across the University have a responsibility to help staff members to comply with their obligations under the Conflict of Interest Policy by:

(a) building general awareness of the risks of conflicts of interest inherent in the work of the people they manage.

(b) making staff members aware of the policy, procedures and form regarding conflicts of interest.

(c) advising and directing staff members as necessary about appropriate ways to manage any conflict of interest.

(d) ensuring that conflicts of interest involving their staff members are managed appropriately.

(e) assisting any staff member who discloses a conflict of interest to develop an appropriate strategy to manage the situation.

(f) reviewing and endorsing plans to manage any conflict of interest.

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(g) monitoring the work of their staff members and the risks associated with a conflict of interest.

3.2. Individual Responsibilities

(a) In relation to teaching, academic supervision and assessment of students, staff members must disclose to their ~~Head of Department~~Relevant Manager any personal or financial relationship that may lead to a conflict of interest.

(b) Where such a relationship exists, the staff member is not to have any assessment responsibility, nor act as a supervisor or as an advisor to the student.

(c) In relation to employment, staff members must disclose to their Relevant ~~m~~Manager any personal or financial relationship with another person, where the staff member has responsibility for or may directly influence decisions, including, but not limited to, decisions about the appointment, promotion, remuneration/reward, leave or discipline of that other person.

(d) Staff members must disclose to their manager any relationship to suppliers or potential suppliers of goods or services to the University that may conflict with the discharge of their University duties or responsibilities.

(e) In relation to committee membership, members are to disclose any actual or potential conflict of interest to the chair who will then decide on the appropriate course of action.

3.3. Managing a Conflict of Interest ~~Situation~~

(a) As soon as a member becomes aware that they have a conflict of interest ~~or a potential conflict of interest in the process of making a decision in their role at the University,~~ they must declare it in writing to their ~~immediate~~ Relevant ~~manager~~ Manager (~~refer~~using the Conflict of Interest Disclosure Form (refer to A~~a~~ppendix A~~: Conflict of Interest Disclosure Form~~), unless another form or method of disclosure has been provided.

(b) If the member's manager has a conflict of interest in the matter, the member must disclose the conflict of interest to the next higher level of authority.

(c) The relevant manager, in consultation with the member who has disclosed the conflict of interest, must determine whether a conflict of interest exists and, if so, what further action needs to be taken.

(d) If the relevant manager decides that further action needs to be taken, the member must have no involvement, or further involvement, in the matter giving rise to the conflict of interest unless the manager decides otherwise.

(e) Where it is determined that further action needs to be taken, the manager, in consultation with the member will decide on a course of action to manage or avoid the conflict of interest and record this in the Conflict of Interest Disclosure Form (refer to Appendix A), unless another form or method of disclosure has been provided.

~~Any decisions and action taken must be recorded in writing and filed by the relevant manager on the Interests Register (VC's Office).~~

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(f) If the member does not agree with the decision of their manager they may raise the matter with the relevant Senior Manager.

(g) To avoid doubt, the convenor of a meeting other than a committee meeting must deal with and record any conflict of interest that arises in the same manner as a manager would do.

(h) The Conflict of Interest Disclosure Form should be retained by the Relevant Manager and a copy forwarded to disclosures@lincoln.ac.nz.

3.4. Council Meeting Procedure

Where a member makes a disclosure of interest ~~at~~ during a meeting, the disclosure and any ruling of the meeting must be recorded in the minutes of that meeting.

In the case of a Council or a Committee of Council ~~Committee~~ meeting, the Council or the Committee will resolve on a case-by-case basis by majority vote how the matter should be handled. Options include:

(a) forming a view that there is no conflict;

(b) forming a view that there is a conflict but, where this is in common with the public or by virtue of the Council member's election by a particular organisation or group, allowing the member to remain for the discussion of the item to which the conflict applies, and allowing him/her to speak and vote on the subject;

(c) forming a view that there is a conflict but,

- allowing the Council member in question to remain for the discussion of the item to which the conflict applies, and allowing him/her to speak to the subject, but not to vote; *or*
- allowing the Council member in question to remain for the discussion of the item to which the conflict applies, but not allowing him/her to speak or vote; *or*
- excluding the Council member in question from the meeting for the discussion and vote on the item to which the conflict applies.

3.5. Committee Meetings

All Committee meeting agendas are to contain an item requiring the declaration by members of the Committee of any actual, potential or perceived conflict of interest with regard to any item on that agenda. Committee members must disclose to the chair any conflict of interest with regard to any item on the agenda as soon as possible and in all cases, before that item is dealt with by the committee

The minutes must record any conflict of interest declared before, or arising during the

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meeting and how the conflict was dealt with. Action/ decisions taken by a Committee Chair in relation to disclosure of conflict of interest before or during a committee meeting must also be recorded in the minutes of the relevant meeting.

Chairs of the Committee are required to ensure that any conflicts of interest dealt with in a meeting are recorded in the minutes of that committee meeting. ~~Where a conflict of interest is disclosed and dealt with, a copy of the minutes of the committee meeting must be forwarded to the Vice Chancellor's Office for recording on the Interests Register.~~

~~**Commercial Relationships**~~

~~Where a conflict of interest arises or is disclosed that affects the commercial relationships of the University:~~

~~In the case of a Council or Council Committee Member, they must disclose the matter to the Chancellor who may take action to protect the University.~~

~~(a) In the case of a member who is an employee of the University, the manager must disclose the matter to a senior person in the University (e.g. members of the Senior Management Group disclose to the Vice-Chancellor, Deans to the Chief Academic Officer, Heads of Department to the Dean, academic staff to the relevant Head of Department, professional staff to the Manager of the relevant service unit), who may take additional action to protect the University.~~

~~If a conflict of interest involves a subsidiary of the University, the CEO of the subsidiary and the Chief Commercial Officer should be consulted and receive copies of the file note. The file note should record the disclosure, whether the manager or senior manager believes a conflict of interest might exist and, if so, what procedures were followed.~~

~~**Academic Supervision**~~

~~In relation to academic supervision and particularly research degree supervision, staff members in a decision making role are obliged to identify to the Head of Department any relationship, as defined in the Conflicts of Interest Policy, and, where such a relationship exists, shall not normally act as supervisor or, as the case may be, joint supervisors or advisers of a research student.~~

~~If a relationship, as defined in Section 4 of the Conflicts of Interest Policy, develops between supervisors, or between supervisor and student, this relationship must be fully disclosed to the Head of Department, and shall be managed under this clause. The Head of Department in the first instance may ask for details of how any conflict may be managed and will decide if the supervision may or may not continue. The Head of Department should then notify the Dean.~~

~~An academic staff member may question whether s/he has a pecuniary interest when exercising judgement in their role as an academic supervisor. It is considered that the regulations governing degrees, personal courses of study, academic assessment,~~

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~~progress and examinations as set out in the University's policies provide sufficient guidance to avoid such conflicts of interest.~~

~~3.7.~~3.6. Acceptance of Gifts

The Sensitive Expenditure Policy sets out the framework for staff members when accepting gifts or koha on behalf of the University, or giving gifts on behalf of the University, both to external parties or staff within the University.

The Policy recognises that accepting gifts can present an ethical dilemma for staff. The Policy complies with guidance issued by the Controller and Auditor General and also ensures the University's compliance with the relevant taxation legislation, primarily Fringe Benefit Tax.

~~3.8.~~3.7. Undeclared Conflicts of Interest

If any person is aware or suspects ~~of a~~~~any~~ ~~undeclared~~ conflict of interest has not been disclosed, they may raise this non-disclosure with the Relevant Manager.

If a member is uncomfortable raising the non-disclosure with the Relevant Manager, they may choose to make a disclosure in accordance with the University's Protected Disclosures Policy, and be protected by the Protected Disclosures Act 2000.
~~they have a responsibility to declare such and shall be protected in doing so by the Protected Disclosures Act 2000 as specified in the University's Protected Disclosures Policy.~~

~~Disclosure of the conflict should be made to the appropriate senior person in the University (e.g. the Chancellor, the Vice-Chancellor, a Senior Manager, a Dean or Director, a Head of Department) who must record the conflict as a file note which documents the disclosure, whether the senior manager believes a conflict of interest might exist, and, if so, what procedures were followed.~~

~~Should an undisclosed conflict of interest be discovered and proven, the Chancellor or Vice Chancellor (or his/her nominee) may instruct the member to take particular actions to manage or remove the conflict.~~

3.8 Contact

If you have any questions in relation to the operation of this procedure please contact the General Counsel or Council Secretary.

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Conflict of Interest Disclosure Form

In accordance with the University's Conflict of Interest Policy, all staff members of the University community must disclose ~~any potential or perceived~~ conflict of interest as soon as reasonably practicable after the conflict is identified.

~~The~~ The completed form is to be ~~submitted~~ retained by the Rrelevant Manager ~~or Committee Chair~~ and a copy of the form will be emailed to disclosures@lincoln.ac.nz, ~~to the Interests Register~~.

Part A: Nature of Conflict
Outline the actual, potential or perceived conflict of interest:

Part B: Proposed Action(s) agreed by staff member and manager~~, or Committee member and Chair~~:
Outline what action is proposed to resolve the conflict or reduce the risk it may pose~~t~~ to the individual's duties, and/or to the University (please consider whether a senior manager may need to be consulted).

I declare that the disclosure in Part A is true and correct and I agree to the action plan outlined in Part B:

Staff/Committee Member Name		Staff/Committee Member Signature	
Department/Unit		Date	

I approve the action plan outlined in Part B:

Manager/Chair Name		Manager/Chair Signature	
Position		Date	

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POLICIES AND PROCEDURES

LINCOLN UNIVERSITY
TE WHARE WĀNAKA O AORAKI

Council Members Conflict / Disclosure of Interest

Last Modified: 28 July 2020
Review Date: 30 July 2023
Business Owner: Vice-Chancellor
Approval Authority: Council

Under Review

1. INTRODUCTION

1.1. This policy summarises the relevant legislative provisions relating to possible conflicts of interest for Council members.

1.2. The provisions of the Local Authorities (Members' Interests) Act 1968 relates to contracts between the University (which includes the Council) and its members, and in particular, to the restrictions on the actions of such members when matters in which they have a pecuniary interest are under consideration.

1.3. The Education Act 1989 provisions relating to actual disclosure are detailed in Section 4. Staff members of Council should note Section 4.3.

2. RESTRICTION ON ELECTION OR APPOINTMENT

2.1. No person shall be capable of being elected as or appointed to be, or of being, a member of Council or of any of its Committees if that person is concerned or interested in contracts made by the Council where the payments made, or to be made, in respect of all such contracts exceeds twenty five thousand dollars in any financial year. In special cases, with the prior approval of the Audit Office, these limits may be increased.

2.2. The provisions of the Act apply to a member concerned or interested in any sub-contract made with any contractor to the Council as if that member was concerned or interested in the head contract.

2.3. Where a member's interest in a contract arises through membership of an incorporated company, the restriction on membership of Council applies if:

2.3.1. The member or the member's spouse or partner, singly or between them own, directly or through a nominee, ten percent or more of the issued capital of the company or any company controlling that company.

2.3.2. The member or the member's spouse or partner is a member of the company and either of them is managing director or general manager (by whatever names they are called) of the company.

2.3.3. The member or the member's spouse or partner is a member of a company controlling the company with which the contract is made and either of them is the managing director or the general manager of that controlling company.

2.3.4. The member or the member's spouse or partner is the managing director or general

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manager of the company and either of them is a member of a company controlling that company.

2.4. The above does not apply where the member and the member's spouse or partner are living apart or the member did not know and had no reasonable opportunity of knowing that his or her spouse or partner owned any part of the issued capital of the company or of any company controlling that company, or held any of the offices set out in 2.2 and 2.3 above.

2.5. A controlling company is one owning fifty per cent or more of the issued capital of the relevant company, or one able to control the exercise of fifty per cent or more of the total voting powers exercisable by all members of that other company.

2.6. A member of Council or of one of its committees shall be deemed to be concerned or interested in a contract made by the Council in which that member's spouse or partner is concerned or interested (other than a contract made with an incorporated company), provided that this does not apply where, at the time when the contract was entered into, the member and his/her spouse or partner were living apart or the member did not know and had no reasonable opportunity of knowing that his or her spouse or partner was concerned or interested in the contract.

2.7. No Council member will be disqualified in respect of any contract made on behalf of Council under a delegated authority by a University officer, or by a committee to which that member does not belong, where it is verified to the satisfaction of the Audit Office that the member did not know and had no reasonable opportunity of knowing of the contract when it was made.

2.8. There are additional instances specified where a member will not be disqualified.

3. DISCUSSION OR VOTING BY A MEMBER OF COUNCIL OR ONE OF ITS COMMITTEES WHEN THAT MEMBER HAS A PECUNIARY INTEREST

3.1. A member of Council or of one of its committees shall not vote on, or take part in the discussion of, any matter before Council or before that committee, where that member has in relation to that matter, directly or indirectly, any pecuniary interest, other than an interest in common with the public. Public has been defined as "the people collectively, or in general, of a particular locality, state or nation or of the world at large".

Where a member has been appointed to Council by another group or body, that member may remain involved in discussion and may vote if his or her pecuniary interest in the relevant matter is not different in kind from that of other members of that group or body, even if that interest is different from that of other members of the public. A pecuniary interest does not necessarily imply a pecuniary advantage.

3.2. Where an incorporated company has a pecuniary interest in a matter a member of Council shall be deemed to have a pecuniary interest in that matter if the member or the member's spouse or partner is involved in any of the ways already outlined in respect of contractual interests.

In addition, the member is deemed to have a pecuniary interest where the spouse or partner has (directly or indirectly) a pecuniary interest in a matter before the Council or one of its committees as the owner or one of the owners (otherwise than a member of an incorporated company) of an estate or interest in any real or personal property, or of any business or as party to any contract or proposed contract with the Council.

3.3. A specific exception allows a member of the Council of a University (and some other specified bodies) who is an employee of the relevant body to discuss but not vote on any

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matters that affect directly or indirectly that member's salary or allowances.

3.4. With the prior approval of the Audit Office a member may vote or take part in the discussion on any matter where it is satisfied that the transaction of business before the meeting would be impeded by the application of the restriction or that the interests of the relevant "inhabitants or electors" would be better served by not applying the restriction.

4. DISCLOSURE OF INTEREST

Section 175 of the Education Act provides –

4.1. A member of Council or a Council committee who has an interest in a matter being considered or about to be considered by the Council or committee, as the case may be, shall, as soon as possible after the relevant facts have come to the member's knowledge, disclose the nature of the interest at a meeting of the Council or committee.

4.2. A disclosure under 4.1 above shall be recorded in the minutes of the meeting of the Council or committee and the member shall not unless the Council decides otherwise -

4.2.1. be present during any deliberation of the Council or committee with respect to that matter; or

4.2.2. take part in any decision of the Council or committee with respect to that matter.

4.3. For the purposes of this section, a person has an interest in a matter if, and only if, the matter relates to the conditions of service of the person as the chief executive or a member of staff of the institution concerned or the person has any other direct or indirect pecuniary interest in the matter.

KEY WORDS
Council, BCCMs

Under Review

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LINCOLN UNIVERSITY
TE WHARE WĀNAKA O AORAKI

Vice-Chancellor's Office

Version: 1.0

Biocompliance Report for SLT

Author/s: Biocompliance Officer

SLT Authoriser: Executive Director, People, Culture and Wellbeing Date: 10/12/2024

1. Purpose

This report provides an overview of the period 1 May – 30 November 2024 in relation to Biocompliance:

- activities carried out in University Containment Facilities (MPI 1421)
- management of Hazardous Substances for research and teaching
- Farms Biosecurity and ACVM-related compliance

2. Content

1. **Appendix 1** – MPI Audit Report PBV/1421/2024/02

3. Recommendations

That Council:

- Receive the Biocompliance Report
- Note activities undertaken to eliminate the level of reputational and financial risk that would result from a breach of containment or other critical non-conformance in our Containment Facilities, along with additional compliance requirements for LU research activities.

4. Executive Summary

This report outlines the progress being made to address and manage areas of risk related to teaching and research compliance, and biosecurity risks.

5. Resource Implications

Nil.

6. Strategic and Policy Framework Implications

Strategic alignment with priority objective areas in Lincoln University Strategy 2019-2028	Goal 1	A distinctive Aotearoa New Zealand end-to-end student experience	☑
	Goal 2	Improved assets and sustainable operating models	☐
	Goal 3	A culture which stimulates and inspires staff and students	☑
	Goal 4	A world-class research and teaching precinct	☑
	Goal 5	An organisation focused on meaningful partnerships	☑
	Goal 6	Facilitating Growth	☑

Strategic Alignment

This report supports the new Lincoln University Strategy by highlighting risks for the goal of a world-class teaching and research precinct, and the steps being taken to manage those risks and support meaningful partnerships.

Policy Consistency

Consistent with the University's Plans and Policies (primarily the Biosafety and Biosecurity Policy, Farms Biosecurity Policy and Procedure, External Research Funding Policy).

7. Next Steps

- Progress HSNO mega-Approval application for pre-screening with the EPA.
- Continue review of research activities under active HSNO Approvals and verify all modifications are within the scope of the Approvals.
- ACVM Research Approval for field trials – Trichoderma, Trichoderma volatiles, and other LU plant protection products for control of pests and diseases. This will enable researchers to undertake field trials outside of the university and where appropriate permit treated plants/pasture into the food chain (i.e. remove requirement to remove and destroy treated plants).
- Consider relevant updates to Farm Visitor/Research forms, Research coversheets, Farms Biosecurity Policy and Procedure, and flags for RMO for any LU research activities involving birds in response to Highly Pathogenic Avian Influenza (HPAI) outbreaks.

Lincoln University Containment Facilities

Lincoln University operates an MPI-registered Containment Facility (1421) to conduct research using various restricted biological products and organisms as defined by the Biosecurity and HSNO Acts. The facility allows research activities using low risk genetic modification, new organisms to New Zealand, unwanted organisms, Risk Group 2 pathogens, and restricted biological products to take place. The University is also a Controlled Area for Kiwifruit Plant Material under the Biosecurity Act.

The Containment Facility is a combination of specific, secure University labs housed in Waimarie, RFH, the Biotron, and JML. Lincoln Agritech also operates a PC2 lab in the NRE building as part of the University's registered facility.

Under section 39 of the Biosecurity Act 1993, Lincoln University is approved as a containment and transitional facility (ATF #1421) in accordance with the requirements of the relevant MPI and EPA standards. Under section 40 of the Biosecurity Act, the University (corporate entity) is approved as an Operator of the facility and, as such, is primarily responsible and accountable for the facility, compliance with the relevant approvals and all activities involving regulated organisms and risk goods undertaken in association with it. It is a legal requirement to have an approved Operator. The delegated Facility Operator (DFO) with day-to-day operational responsibilities for the facility is the Bio-compliance Officer. The Bio-compliance Manager reports to the Executive Director, People, Culture and Wellbeing**,** research issues and breaches are reported to the Provost, while ultimate responsibility for the Facility sits with the Vice Chancellor.

Audits

The Facility Operator conducts internal audits of all Containment Laboratories at six-monthly intervals to tie in with the six-monthly external audits by MPI, the regulator under the Biosecurity and HSNO Acts.

Internal audits cover structural requirements, signage, confirmation of user access authorization, checks that documented processes in the Quarantine and Containment Manual are being followed, track and trace of incoming risk items received in the previous 6 months, verification of autoclaves used to dispose of risk waste, and a review of activities under Approvals and Permissions. Corrective actions from internal audits are provided to the relevant Lab Manager to close out.

The MPI auditor meets with the Facility Operator and reviews the following:

- Assurance internal audits have been conducted, and corrective actions raised and closed.
- Internal records of any issues or incidents that may compromise containment.
- Current HSNO Approvals and CTO Permissions.
- Permits to Import held by the University, and adherence to any conditions listed on the permits.
- Records of incoming risk items under Permits to Import and Movement Authorities.
- Identification, Traceability and Management of risk items within our laboratories.
- Disposal processes for risk items and verification records for autoclaves.
- Training records for authorized users and Property Services personnel.

MPI Audit

The 6-monthly MPI Audit took place on 13 September, outcome is either Acceptable or Non-Acceptable. We received an Acceptable outcome with just one minor non-compliance (visitor books to record approved entry by non-lab workers). The full verification report is appended (Appendix 1).

Definitions

Acceptable	Where the Animal Products Officer (or Biosecurity Inspector) is satisfied that the operator is substantially complying with requirements; and where there have been any departures from regulatory requirements, that the operator's corrective actions have been, or are being, applied appropriately and effectively.
	Departures from regulatory requirements, identified by the Animal Products Officer (or Biosecurity Inspector), are to be transferred to the operator's issue management system for resolution. (Key Topic / Non-compliance)
Unacceptable	Where the Animal Products Officer (or Biosecurity Inspector) has determined that the operator is not in substantial compliance with regulatory requirements; evidenced by inadequate operator controls. (Key Issue / Non-compliance)

Approvals and CTO Permissions update

HSNO Approvals – New Organisms

GM work is currently conducted under several LU-specific and NZ organisational-wide HSNO Approvals. The preference is to move the University to a single institution-wide HSNO Approval as per the Universities of Otago and Auckland to reduce the level of complexity for both researchers, internal auditing purposes, and external verifiers.

Work on an institution-wide draft application to the EPA originally commenced in mid-2018. This application has been resurrected and discussion had with the EPA New Organisms Advisor on scope for our research requirements as to how to progress the application and get it to the pre-screening stage before the end of this year.

HSNO Approvals – Agricultural Chemicals (Manufacture in Containment)

An application was submitted to the EPA to Manufacture Agrichemicals in Containment. HSNO approval is required to manufacture of agrichemicals in containment under section 31 of the Hazardous Substances and New Organisms Act 1996 (HSNO Act) for plant protection products intended for agriculture, horticulture, forestry, conservation, amenity, and infrastructure use.

The Approval was granted 27 November.

CTO Permissions (MPI)

Chief Technical Officer (CTO) permission is required to communicate and propagate unwanted organisms under the Biosecurity Act.

The Psa (*Pseudomonas syringae* pv. *Actinidiae*) Permission is a joint permission between the University and Biosouth, primarily to allow Biosouth to ferment bacteriophage in our PC2 facilities. It expires at the end of December 2024, an application to extend the Permission for a further three years and expand it to cover any additional research activities the University is likely to undertake with this organism will be submitted by the start of December.

A new CTO Permission has recently been sought and granted for research on the Risk Group 2 Unwanted Organism *Tatumella citreae.* Some species of *Tatumella* are indicated as potentially useful in winemaking. LU aims to compare physiological traits as well as genomes

of the available type strains as no genome sequences are available for any strain. Research on this organism will take place in the RFH PC2 Micro Lab.

This brings the total number of active CTO Permissions to work with Unwanted Organisms to six.

Biocompliance Issues and Risks

Resolved – PFR Approval to import or manufacture four bacteriophages in containment to carry out potted plant and orchard-based field trials on mature kiwifruit vines.

One of the four bacteriophages is generated from GM-Psa and was produced in fermentation vessels in our Containment Facility. The EPA have determined if there is no transfer of genetic material from the GM Psa to the viable wild-type bacteriophage that is produced from these contained fermentations (that is no viable organism that could be considered a GMO leaves containment) PFR are able to this under the appropriate GMC approvals they have indicated.

There is no risk to the University regarding our production of the bacteriophage as we have dilution-plate tested all batches produced to date and can confirm no presence of Psa (GM or otherwise).

Bio-compliance and Biosecurity Risks			
Risk Element	Mitigations	Verification	Residual Risk
PC2 Containment Facilities – breach of containment	Containment manual Containment Lab managers Training & Assessment modules in LEARN Contingency plans Authorised access	Training records Internal audits (LU) External audits (MPI) Access control	Change (lowered)
Breach of HSNO Approval	Training for staff and students Training & Assessment modules in LEARN Application to use HSNO Approval forms Protected Research protocols	Training records Facility processes Internal audits (LU) External audits (MPI)	No Change
Breach of Biosecurity Act	CTO Permissions Application to use CTO Permission	Records management Internal audits (LU) External audits (MPI)	No Change

Relevant legislation and standards

Biosecurity Act 1993
Hazardous Substances and New Organisms (HSNO) Act 1998
Medicines Act 1981
EPA / MPI Standards LU Containment Facilities are approved to: Transitional 154.02.17; Microorganisms 154.03.02; Plants 155.04.09; Vertebrates 154.03.03

LINCOLN UNIVERSITY
TE WHARE WĀNAKA O AORAKI

Vice-Chancellor's Office

Version:

Conferment of Degrees, Diplomas and Certificates 17 December 2024

Author/s: Sonja Wilkinson / Hamish Cochrane

SLT Authoriser: Date: 10/12/2024

1. Purpose

Submission of graduand name for revoking of certificate and names for conferment of degrees, diplomas, and certificates by Council on 17 December 2024.

2. Recommendation

That Council resolves to approves the following awards:

Doctor of Philosophy

Die **Hu**, in Economics and Finance

Annu **Mehta**, in Food Science and Technology

Master of Applied Computing

Yunru **Huang**, Distinction
Hongxu **Jin**, Distinction
Zhao Xu, Distinction

Master of Business in Global Management and Marketing

Yuchong **Huang**, Merit

Master of Fintech and Investment Management

Li **Gao**, Distinction

Master of International Nature Conservation

(Jointly awarded with Georg-August-Universität, Göttingen, Germany)

Amelia **Agranovich**
Zin Mar Hein

Master of Landscape Architecture

Gwen Marie **Smart**, First Class Honours

Master of Management in Agribusiness

Jerome Dino Biter **Bilongilot**, Distinction

Master of Science

Gaosheng **Wu**, First Class Honours, in Biochemistry

Master of Science in Food Innovation

Pei-Ting **Jian**, Distinction
Bolang **Su**, Merit

Postgraduate Diploma in Applied Science

Cameron James **Hilliard**

Postgraduate Diploma in Environmental Management

Brittney Sarah **Sutherland**, Distinction

Postgraduate Certificate in Applied Science

Kithusan **Albert**, Distinction
Yue **Ma**, Distinction
Huazhen **Ou**, Distinction
Zihe **Zhao**, Distinction
Yunshu **Hao**
Lydia Grace **Proffit**
Ziwei **Wang**
Yue **Wu**

Postgraduate Certificate in Commerce

Louis Joseph **Batley**, Distinction
Esther Gerdina **Donkersloot**, Distinction
Moss Graham Beaumont **Jackson**, Distinction
Sophie Ellen Kenzie **Macaskill**, Distinction
Cha Zhi Wei
Juan Martin **Cisneros Masari**
Richard Ian Foster **Pedley**
Ariane Gabriella **Russell-La Porte**
Tessa Maree **Walker**
Chenghuan **Wang**
Jennifer Louise **Wilcock**
Mengyu **Zheng**

Postgraduate Certificate in Environmental Management

Georgia Kate **Evans**

Postgraduate Certificate in Parks, Recreation and Tourism

Kaushik **Padmanaban**

Graduate Diploma in Viticulture and Oenology

Susan Mary **McKean**, Distinction

Bachelor of Commerce (Agriculture)

Loren Peta **Lilley**

Diploma in Agriculture

Zara May **Booker**
Daniel John **Powell**

Diploma in Applied Science

Ruby Mary **Hynes**
Molly Margaret **Watherston**

Diploma in Natural Resources

Pius **Aratara**
Ruby Mary **Hynes**

Diploma in University Studies

Jody Reese **Reynecke**

Motion Carried / Motion Not Carried

Dr Hamish Cochrane
Director, Student Administration and Student Health
18 November 2024

LINCOLN UNIVERSITY
TE WHARE WANAKA O AORAKI

Vice-Chancellor's Office

Version:

Lincoln University Health & Safety Assurance Program

Author/s: Nathaniel Heslop
SLT Authoriser: Karen McEwan

Date: 10/12/2024

1. Purpose

The purpose of this report is present a health and safety assurance program to Council for approval.

Strategic implications for Council discussion could include:

A. What needs to occur for Council to have increased confidence in the Health & Safety practices and procedures at Lincoln University?

B. Are there any key performance indicators / targets that Council wish to put in place to that will support progress towards organizational objectives and define Council's tolerance for risk in this area?

C. Is health and safety adequately resourced at Lincoln University to meet the safety objectives of the University?

2. Content

1. **Appendix A**: Schedule of Site Visits for 2025
2. **Appendix B**: Schedule of Health & Safety Deep Dives in 2025

3. Recommendations

That Council:

1. **RECEIVE** the information in this report.

2. **ADOPT** the Health and Safety Assurance Program outlined in this report, including the schedule for Site Visits and Health & Safety Deep Dives in 2025.

3. **DELEGATE AUTHORITY** to the Council Secretary, Chancellor, and Vice Chancellor to make amendments to the Safety Observation Visits Schedule, and Health h& Safety Deep Dives Schedule in accordance with feedback received from Council.

4. Executive Summary

Council members have specific duties as officers under the Health and Safety at Work Act 2015.

Health and safety is considered in its broadest sense to also include wellbeing, cultural safety, physical and personal security. The Council has a core governance role in providing leadership and proactive oversight on all matters relating to the health and safety of all members of the University community (including students, staff, visitors, and other individuals).

It is the Council's principal responsibility to be informed and to undertake relevant due diligence, taking such steps as each Council member considers necessary to be satisfied as to the management of health and safety risks arising from the University's operations and the execution of controls to mitigate such risks, to ensure compliance with statutory health and safety obligations.

This report presents an assurance program for Council to adopt in a continuation of its proactive oversight of health and safety at Lincoln University.

The health and safety assurance program implements several measures, including:

1. A review of health and safety reporting to Council
2. Implement safety observation visits to locations or interest around Lincoln University, as outlined in Appendix A
3. Conduct a series of deep dives into the six critical risk areas identified and reported on in the current health and safety report, as outlined in Appendix B

A health and safety assurance plan is a process that helps ensure that safety risks are managed effectively, potential issues are identified early, and safety goals are met.

Review of health and safety reporting to Council

Lincoln University has hired a new health and safety manager who commenced employment on 18th November 2024.

In collaboration with the Council Secretary and Executive Director of People, Culture, & Wellbeing the health and safety reports will be reviewed to:

1. Increase the volume of information reported in the open session of Council.
2. Enhance the narrative provided to Council to increase comfort that practices and controls currently in place are adequate or being modified in response to feedback and observations.
3. Provide adequate detail about steps taken in response to incidents' that require investigation, including what changes (if any) have been made to workplace practices, policy, or controls (as appropriate).

Site (Safety Observation) Visits

Council has expressed an interest in resuming a program of site visits.

Safety observations is a systemic process of identifying and documenting potential hazards, unsafe behaviours, or unsafe conditions in a workplace before they result in accidents or injuries.

Conducting regular safety observations fosters a proactive safety culture, and having Council members and Senior Leadership visit faculties, sites, and workplaces on campus will underscore the importance of health and safety at Lincoln University.

A draft schedule of safety observations is attached in Appendix A. One senior leadership team member and two Council members are scheduled for a safety observation visit each month Council meets in 2025. The Health and Safety Manager will also participate in safety observations to increase their familiarity and understanding of Lincoln University, be available for questions from members, and build

The safety observations schedule can be amended by Council feedback if there were areas of Lincoln University that members wish to visit.

It is anticipated that a system will be put in place where participants in a site visit can relay their feedback to Council at its next meeting.

These visits will be inserted into Council members and Senior Leadership Team calendars once adopted.

Health & Safety Deep Dives in 2025

It is proposed that a series of deep dives into the six critical risks identified in the current Health and Safety Report be conducted in 2025.

The schedule for these deep dives is outlined in Appendix B. Deep dives have been risk-ranked and will occur in order of highest risk to lowest risk as follows:

1. Post-graduate research activities (field based)
2. Construction activities
3. Farms
4. Radiation
5. Field trips & tours
6. Events held on campus

Due to personnel capacity restraints three deep dives have been scheduled for 2025, and the remaining three deep dives can occur in 2026.

It is noted that the hazards register identifies areas of risk, not the specific hazards in those areas. It is anticipated the Health and Safety Report will be adapted to identify specific hazards. It may be appropriate and desirable for Council to have a deep dive on a specific hazard once those are known.

If Council wishes to explore additional areas in a deep dive these can be incorporated via feedback to the Council Secretary, and agreement by the Vice Chancellor.

5. Resource Implications

Operating costs for Health and Safety staff and governors are included in existing operating budgets that have been approved by Council.

6. Strategic and Policy Framework Implications

Strategic alignment with priority objective areas in Lincoln University Strategy 2019-2028	Goal 1	A distinctive Aotearoa New Zealand end-to-end student experience	☐
	Goal 2	Improved assets and sustainable operating models	☐
	Goal 3	A culture which stimulates and inspires staff and students	☑
	Goal 4	A world-class research and teaching precinct	☐
	Goal 5	An organisation focussed on meaningful partnerships	☐
	Goal 6	Facilitating Growth	☐

Strategic Alignment

This report supports the Lincoln University Strategy 2019-2028 by ensuring we have a culture that inspire staff and students by having courageous conversations and governors being seen to engage in site visits to better understand the risks that are at Lincoln University, and model behavior we expect from staff and students.

Policy Consistency

This decision is consistent with the University's Plans and Policies.

7. Next Steps

Site Visits will be added to Senior Leadership and Council Members' calendars in accordance with Appendix A.

Deep Dives will be added to the Council workplan by the Council Secretary in accordance with Appendix B.

Appendix A: Site Visit Schedule 2025

Month	Site	SLT Member	Council Members
February	Waimarie	Prof. Chad Hewitt	Prof. Grant Edwards, Liz Hill-Taiaroa
March	George Forbes (Grounded, HR, & Finance)	Prof. Merata Kawharu	Michelle Ash, James Parsons
April	Ivey West & Memorial Hall	Susie Roulston	Bruce Gemmell, Gabrielle Thompson
May	Whare Hākinakina Gym	Karen McEwan	Puamiria Parata-Goodall, Zara Weissenstein
July	Hudson Building	Damian Lodge	Prof. Derrick Moot, Janice Fredric
August	JML Laboratories	Prof. Chad Hewitt	Bruce Gemmell, Michelle Ash
October	Te Kete Ika	Prof. Merata Kawharu	James Parsons, Gabrielle Thompson
November	Field Research Centre	Susie Roulston	Liz Hill-Taiaroa, Janice Fredric
December	Colombo Hall	Karen McEwan	Prof. Grant Edwards, Puamiria Parata-Goodall

Appendix B: Deep Dive Schedule 2025

Month	Topic
February	Post-graduate research activities (field based)
March	
April	
May	Construction Activities
July	
August	
October	Farms
November	
December	

Motion by the Chancellor for Resolution to Exclude the Public pursuant to s48 of the Local Government Official Information and Meetings Act 1987:

I move that the public be excluded from the following parts of the proceedings of this meeting, namely:

General Subject Matter	***Reason for passing this resolution in relation to each matter***	***Grounds under section***
Health and Safety Report	To avoid prejudice or disadvantage to the commercial activities of the University	7(2)(h)
LUPJVL Statement of Corporate Intent	To avoid prejudice or disadvantage to the commercial activities of the University	7(2)(h)
Strategy Discussion	To avoid prejudice or disadvantage to the commercial activities of the University	7(2)(h)
Farm Committee Report to Council 1. Report 2. Minutes from meeting on 29 November 2024	To avoid prejudice or disadvantage to the commercial activities of the University To prevent the disclosure or use of official information for improper gain or improper advantage	7(2)(h) 7(2)(j)
Monthly Recruitment Report	To avoid prejudice or disadvantage to the commercial activities of the University To prevent the disclosure or use of official information for improper gain or improper advantage	7(2)(h) 7(2)(j)
Finance Report	To avoid prejudice or disadvantage to the commercial activities of the University	7(2)(h)
Government Oversight Group Reports	To avoid prejudice or disadvantage to the commercial activities of the University To prevent the disclosure or use of official information for improper gain or improper advantage	7(2)(h) 7(2)(j)

I move also that: Professor Grant Edwards (Vice-Chancellor), Prof Chad Hewitt (Provost), Mr S Hunter (Health, Safety & Wellbeing Manager), Prof Merata Kawharu (Deputy Vice Chancellor, Māori and Pasifika), Mrs E Rooney (Finance Director), Mrs S Roulston (Chief Operating Officer), Mr D Lodge (Deputy Vice-Chancellor, Student Life), Ms Z Weissenstein (LUSA President), Mr Alistair Pearson (Property Director), and Mr Nathaniel Heslop (Council Secretary), be permitted to remain at this meeting after the public has been excluded, because of their knowledge of the various matters being discussed. This knowledge, which will be of assistance in relation to the matters to be discussed, is relevant to those matters because of their involvement in the development of reports to Council on these matters.