

# 2024 Governance of artificial intelligence and data in Australasian higher education: A snapshot of policy and practice

### An ACODE Whitepaper

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#### Introduction

This whitepaper is a follow-up of the Australasian Council of Open and Digital Education (ACODE) <u>survey in 2023</u> on the governance of artificial intelligence (AI) and data in Australasian higher education (Selvaratnam & Venaruzzo, 2023). The results then showed the guidelines and policies in this space were still in the early days. Ethical implications were also emerging in tandem with initiatives and the adoption of generative AI in institutions. The latest survey conducted over July and August 2024 is 24 is picking up on the recommendations of the 2023 paper to inform recommendations for practice and further assure quality and equity in higher education. To this end, the <u>JISC AI Maturity Model for Education</u> is used to gauge the sector's growth in the governance of AI and data both in policy and practice. The outcomes show that the sector is mainly at the experimenting and exploring stage of maturity in engaging with AI. The challenges were mainly in operationalising AI in a comprehensive manner across the enterprise, including increasing AI literacy across staff and students. More institutions are addressing the ethical implications of AI since the last survey; however, it appears that social and emotional wellbeing, and psychological safety still have to be carefully considered.

#### **Literature Review**

There is a lack of literature on the governance of AI as it is a very new field, with new Large Language Models (LLM) and updates being released rapidly. There is thought leadership and experimentation in quick-to-publish channels such as LinkedIn. Recently Australia's Tertiary Education Quality and Standards Agency (TEQSA, 2024) requested information on how institutions were planning to address the risk of AI. That has driven universities to develop institutional plans for Generative AI, and an increase in publications (Bearman et al., 2024). Since the last survey, the Australian Department of Education (2024) and the New Zealand Ministry of Education (2024) have both provided updated advice and guidance on the use of generative AI. Landmark legislation has also been passed in the European Union (2024) for governance at that level, and blocs such as the OECD (2024) publish updated AI principles. The World Economic Forum (2024) has also released a significant publication on how AI will shape the future of learning in what it terms "Education 4.0".

Figure 1 shows the recently released AI Maturity Model from JISC (2024), which seeks to help educational institutions self-assess where they are on the AI journey. This formed the context of this year's ACODE survey. There are five stages in the model. The first is approaching and understanding impact. The second stage considers experimenting and exploring AI, with an emerging data culture and some responsible approaches introduced. At the operational stage, institutional principles are established addressing literacy and general use of AI across the enterprise. Stage four addresses the level to which AI is embedded in strategy while data and processes are mature. The final fifth stage is Optimised/Transformed. Here, AI supports the delivery of learning, and overall, tasks are automated where needed.

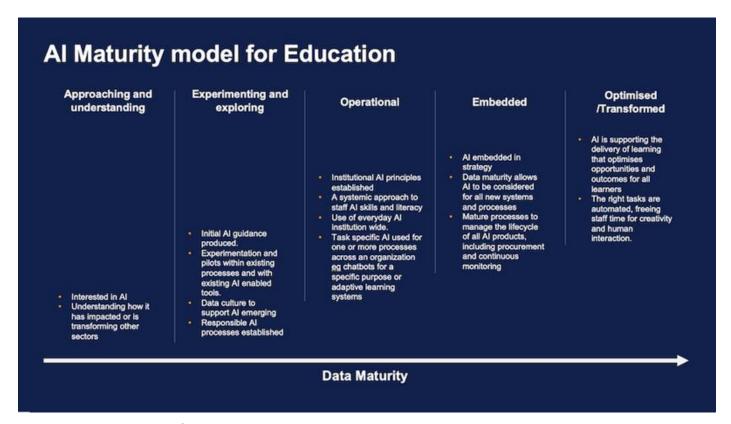


Figure 1 - JISC AI Maturity Model for Education

## Methodology

The survey comprised 12 questions and was distributed to 47 member institutions for completion over July and August 2024. A healthy 34 institutional responses were received which is a 72% response rate and represented tertiary education institutions across Australasia. Representative responses came from a diverse range of roles, from Chief Data Officer to PVC Education Innovation, and more operational positions such as digital learning leads at enterprise levels. Since the last survey in 2023, some questions have been modified, added or separated to distinguish responses to Al and data separately.

The survey outcomes in this whitepaper will be shared with members through ACODE forum and workshops to inform institutional decision-making. This paper is also shared publicly for international benchmarking.

### **Findings**

The survey findings are important to inform where the tertiary sector has journeyed in adopting AI and data governance maturity. Figure 2 shows where institutions best sit with regard to JISC's AI Maturity Model for Education. Some 91% of respondents positioned themselves at stage two, which is experimenting and exploring. Only one institution is at the most mature stage of optimised AI maturity.

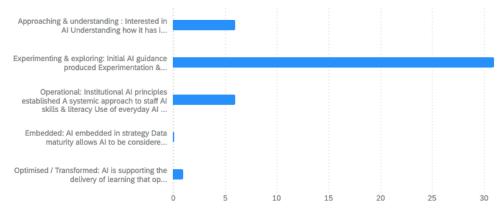


Figure 2 – JISC AI Maturity Model for Education: Australasian institutional AI readiness self-assessment

When respondents were asked to explain their selection, several key themes emerged. Many universities are showing a growing commitment to AI. However, these efforts are not yet uniform across the entire institution. The lack of systematic processes and comprehensive policy frameworks often hinders these institutions from fully claiming an operational status. The need for a cohesive, institution-wide strategy for AI integration is a recurring theme. While some universities have made significant strides by developing institutional AI principles and action plans, others are still in the process of formulating their strategies. A critical challenge is enhancing AI literacy and skills among staff and students. While some universities have begun implementing training programs and updating academic integrity guidelines to include AI, others are still developing systematic approaches to ensure widespread AI literacy.

Universities are actively experimenting with AI through various pilot programs. These pilots span multiple areas, including teaching, research, and administrative tasks. For instance, some institutions have implemented enterprise-wide AI tools to support staff and streamline operations. However, these pilots often operate in silos, indicating a need for more integrated and coordinated efforts to ensure that the benefits of AI are realised across the entire institution. There are complexities involved in scaling AI adoption across large, diverse institutions. Financial constraints and the need for significant change management efforts are cited as major barriers to enterprise-wide AI integration. Despite these challenges, some universities have made notable progress, particularly in areas like data governance and the implementation of AI tools for academic integrity. Looking ahead, some institutions are expecting to reach a more mature stage of AI integration within the next few years. The development of AI action plans and task forces is seen as a crucial step in this direction. However, respondents indicated the rapidly evolving nature of AI presents ongoing challenges, requiring institutions to remain adaptable and responsive to new developments.

ACODE was keen to know what the barriers for institutions could be to achieve the next stage of maturity in this space. The challenges identified in integrating AI are across teaching, learning, and operational structures. Many mentioned resource constraints, budget cutbacks, and staffing issues as concerns. Key themes include:

- Resource limitations: Institutions face significant financial and staffing challenges, with budget cuts leading to resource scarcity and critical positions remaining unfilled.
- Competing priorities: Some universities are juggling multiple large-scale projects, making it difficult to focus on AI integration. This has resulted in project burnout and a diluted capacity to implement systemic changes effectively.
- Systemic challenges: Complex governance structures, accreditation requirements and evolving policies can hinder the swift adaptation of AI. There is a need for more clarity and coordination across areas to manage these changes.
- Cultural and technological resistance: There is resistance to adopting new technologies, both culturally and due to a lack of AI literacy among staff. The rapidly changing AI landscape exacerbates this issue, making it difficult to keep pace with necessary developments.
- Need for strategic change management: There is a call for stronger leadership and strategic direction at the
  executive level to effectively steer and invest in change. The lack of urgency and awareness among senior
  management is seen as a barrier to implementing the necessary frameworks and structures.
- Operational integration: While there may be a plan in place, institutions need to transition AI from a focus area to a core component of its operations. This requires coordinated change management across various departments, strategic investment and consistent policy updates.
- Speed and scale of change: The volume of changes required and the speed at which they need to be
  implemented is overwhelming. This is compounded by an institution's size and complexity, making
  orchestration and visibility challenging.

Next, respondents considered the extent to which AI and data is used ethically within their institutions. This was against policy or usage guidelines and engaging with industry good practices. Figure 3 indicates that a majority of respondents considered they have minimum viable institutional policy or usage guidelines and periodic engagement with industry good practices by individual teams of staff with regards to AI. However, this was more mature in the data domain, where most or 59% felt they had up-to-date policies and guidelines and consistent adherence to industry and sector ethical practices by staff, both at the individual and team levels.

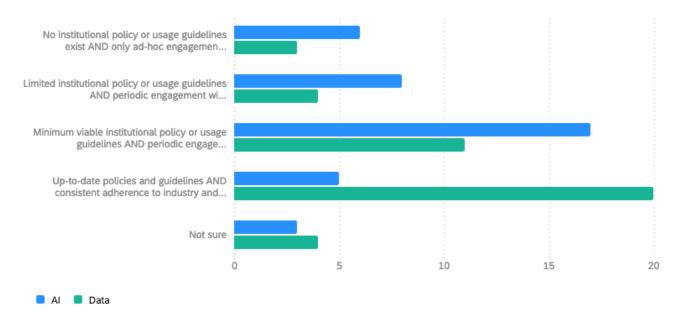


Figure 3 - Extent to which AI and data are used ethically in institutions

The survey sought to understand whether institutions have policies or guidelines related to the ethical use of AI and data. Overall, 70% of responded yes, while 15% said no, while 15% were unsure. The number of "yes" responses is up 15% from 2023, indicating institutions are maturing in developing an integrated governance approach.

A follow-up question was posed to gauge the extent to which an institution's current policies or guidelines address the ethical implications of AI and data usage. Figure 4 shows that close to 9% of respondents thought there was a comprehensive institutional position on this, while 50% indicated some ethical implications are being addressed. However, this is an improvement since 2023, when 15% thought there was no consideration of the ethical implications of AI compared to 6% reported in 2024, which is encouraging and reflects growing institutional awareness of this issue.

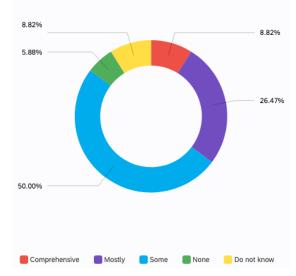


Figure 4 - Extent to which institutions' current policies/guidelines address the ethical implications of AI and data usage

The primary responsibility for overseeing AI and data ethics initiatives within institutions still appears to be within the domain of Deputy Vice-Chancellors and Chief Information Officers, as per Figure 5. This is similar to 2023 figures as well.

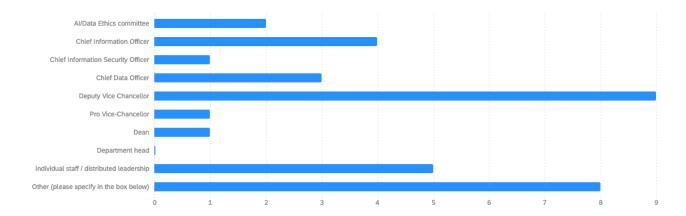


Figure 5 - Roles with primary responsibility for overseeing AI and data ethics initiatives

ACODE was also keen to benchmark how AI is being used within tertiary education institutions, and whether this has changed since the last survey. Respondents were asked to consider whether AI is being used to consume or create a range of artefacts or processes, as per Figure 6. Figure 6 reflects that the most use of AI was on the general research on AI. This includes experimental action research using AI in learning and teaching, with many focusing on assessment task design and content creation. These outcomes are similar to the 2023 survey.

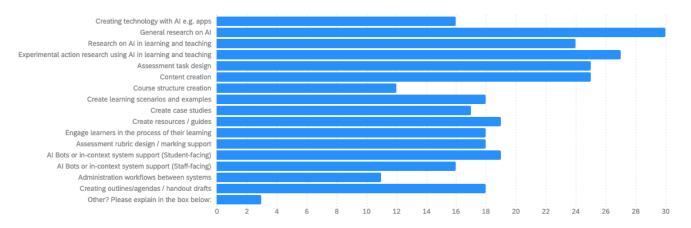


Figure 6 How AI is being used within institutions

The examples of specific applications of AI or projects being used within institutions in the 2024 survey reflect increased instances of incorporation with research policy integration, immersive and adaptive learning experiences, and career development guidance for students. The main themes in specific applications are as follows:

- Al-powered learning and resource development: Al tools are being used to create interactive learning artefacts
  to enhance student engagement. Al applications are utilised for video production, while others are employed
  to convert videos and documents into engaging content. Resource development is also being streamlined
  through Al, combining text, voice, image, and video generation tools.
- Al in assessment and feedback: Al integration in assessments is being explored, including the use of large language models (LLM) in assessment feedback and guidance. Al is also used to automate administrative tasks and provide contextual support during assessments.
- AI-enhanced teaching and learning design: AI is being used in learning design for brainstorming, coding and
  rapid prototyping of learning content. Intelligent agents and AI bots are used to assist in managing user queries
  and automating workflows within learning management systems (LMS). AI tools are also being piloted for
  creating deployable bots that assist in teaching, offering a "tutor assistant" experience.
- Immersive and adaptive learning experiences: Al-powered immersive experiences are developing, using tools to provide interactive learning and feedback. Additionally, adaptive Al systems support students by offering personalised learning experiences and design assistance at the unit or subject level.

- Research and policy integration: There are instances where research grants support the integration of AI, for
  example, in the use of assessments. There is an exploratory research focus on using AI to enhance learning and
  teaching, and how this impacts particular member regions like the Pacific Islands. Learning and teaching
  policies are also being revised to incorporate AI activities, aiming to set quality standards and metrics for AIenhanced education.
- Al in academic skills and career development: Al tools are used in career development advice for students, for example, in resume feedback and in how to use Al prompts for career guidance. Al agents can also assist with academic and resume writing.

With these specific use cases, survey respondents were asked to reflect on ethical considerations at the operational level of using tools to support these instances. From an ethical perspective, 88% agreed with their institution's position on the AI tools used. There were three main reasons given for this stance. Those who disagreed felt there were still outstanding ethical issues; for example, questions surrounding image-based AI have not been adequately addressed, yet its use continues. There are also challenges with approved platforms, which have commercial data protection but limit exploration and understanding of generative AI's potential benefits. There is also a need for guidance at an operational level, seeking a comprehensive approach to data governance, including AI utilisation.

Issues like commercial data protection are influenced by an institution's posture on privacy, security and data governance. Figure 7 shows how they rate in this crucial area. Similar to 2023, most agree or strongly agree there are mechanisms to ensure sensitive data is kept anonymous with protected access, there is security in place to protect against data breaches, and there are mechanisms in place for data collection, storage, processing and use.

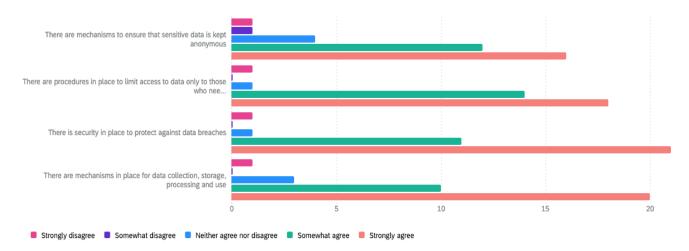


Figure 7 - Institutions strength in privacy, security and data governance

With the proliferation of so-called AI solutions, respondents were asked if institutions had taken adequate steps to ensure that AI systems are accessible, inclusive and usable by individuals with diverse backgrounds and abilities. A total of 41% of institutions indicated agreement (see Figure 8), which is an increase of 14% since 2023. There are two main reasons for this. Firstly, institutions are emphasising the use of assistive technologies and AI, with a focus on transparency in accessing AI systems and managing personal information. There are mandatory training modules for staff and students to support this in many institutions. Secondly, inclusive evaluation of AI tools is growing with a commitment to accessible design and diversity support. However, respondents indicated that there remain constraints due to economic and resource limitations affecting the availability of AI tools. For example, some are only available through payment, posing equity challenges. Another challenge is institutional structures that are yet to include AI systems. Establishing governance of AI and data policies and procedures, alongside awareness and training, can go a long way in addressing access and inclusion concerns.

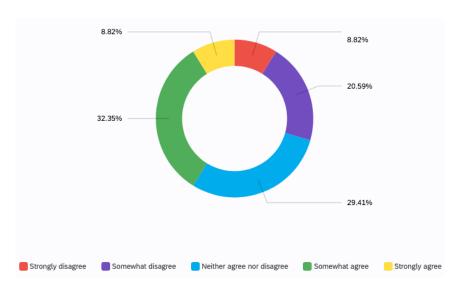


Figure 8 - Whether institutions have taken adequate steps to ensure that AI systems are accessible and inclusive

For this survey, ACODE has updated the question on an institution's consideration of social and emotional wellbeing by adding a dimension on psychological safety in interacting with AI systems. The results depicted in Figure 9 show institutions' consideration of social wellbeing is the highest at 38% in the maturing stage, with 35% of respondents unaware of how emotional wellbeing is being addressed, and 38% unaware of how psychological safety is considered. This is a slight improvement from 2023 where 30% responded that their institution was not considering wellbeing of learners and staff at all, while in 2024 this had decreased to almost 9%. Only approximately 3% of respondents felt there was a comprehensive approach to address social, emotional and psychological wellbeing and safety. Clearly, a lot more work needs to be done in this space.

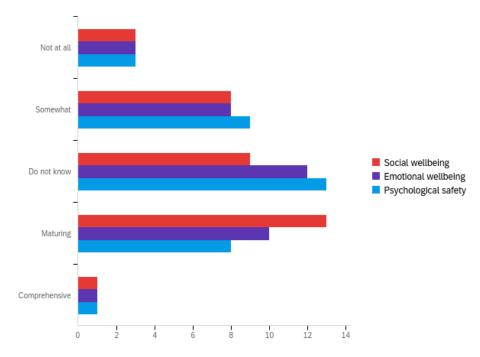


Figure 9 - Extent institutions have considered the wellbeing of learners and educators in interacting with AI systems

Respondents closing comments in the open final section of the survey surfaces four key themes. First, in terms of transparency and governance, there are some views that executive leadership teams advocate for transparency in AI and data governance, providing resources to support students and staff. Guidelines are available for AI use in teaching and research, with a focus on protecting sensitive data. Second, the general commentary is around the current state and development where the governance of data is more mature and robust; however, AI governance is still emerging, driven by concerns about assessment integrity and data use in research. Third, with regard to institutional approaches, there is some collaboration across corporate, education, and research domains, with leadership support for fostering trust and understanding around AI use. Finally, there remain concerns about challenges for the future. The perception

is that the pace of development and change management is slow, with a focus on learning and implementation over the next year. Institutions are beginning to recognise the need for comprehensive risk assessment to inform strategy and investment integrated across teaching, research, and student experience.

### Discussion

The survey findings underscore the sector's progress in AI adoption and data governance maturity, as outlined by JISC's AI Maturity Model for Education. Notably, most respondents indicated that their institutions are at a phase of experimentation and exploration. Despite a growing commitment to AI, many universities lack systematic processes and comprehensive policy frameworks, hindering full operational integration. A cohesive, institution-wide strategy for AI integration remains essential. A critical challenge is enhancing AI literacy and skills among staff and students. Hence, a focus on professional development in this area must continue.

Institutions are conducting various pilot programs in teaching, research, and administration. However, these initiatives often operate in silos, necessitating more integrated efforts to realise Al's benefits institution-wide. Scaling Al adoption across large, diverse institutions presents complexities, including financial constraints and significant change management. Comprehensive risk assessments are necessary to inform strategy and investment across teaching, research, and student experiences. The survey highlights the need for a unified approach to Al integration, emphasising change management to navigate the complexities and challenges involved. Developing Al action plans and task forces are helpful, yet the rapidly evolving nature of Al demands adaptability and constant learning. Leadership roles in enterprise-level change management for organisational Al readiness could be a way forward and are already beginning to emerge in the sector.

Ethical considerations are also paramount and are a growing area to be addressed. Many institutions have policies or guidelines for the ethical use of AI and data. However, ethical issues persist, particularly regarding the operational use of AI tools and data protection. Institutions need comprehensive data governance approaches to ensure sensitive data remains anonymous and secure. This is ideally balanced with AI systems that are accessible and inclusive, addressing equity challenges. Governance of AI and data policies, alongside awareness and training, can mitigate access and inclusion concerns. It is also increasingly important for institutions to prioritise social and emotional wellbeing, focusing on psychological safety in interacting with AI. This is still a maturing area and requires more attention to ensure long-term wellbeing for learners and staff. This will facilitate achieving the highest stage of the JISC maturity model, where learners enjoy optimised outcomes and staff have more time for creativity.

# **Conclusion**

The latest survey results suggest the sector is slowly but steadily maturing in the governance of AI and data in higher education institutions. However, a lot more work needs to be done to scale and integrate across the enterprise while keeping accessibility and psychological safety in focus.

The survey findings highlight the significant strides made by universities in adopting AI and data governance yet underscore the need for a more cohesive and comprehensive approach. While many institutions are actively experimenting with AI, these efforts often lack uniformity and systematic processes, hindering full operational integration. The critical challenges identified include enhancing AI literacy among staff and students, overcoming financial constraints, and addressing ethical considerations. Dedicated leadership in change management across the institutions will need to be clearly established to achieve this. Despite these hurdles, there is a clear recognition of the potential benefits of AI, particularly in teaching, research, and administrative tasks. The development of AI action plans and task forces are seen as essential to navigate the rapidly evolving landscape of AI. Additionally, the need for robust data governance and comprehensive risk assessments is emphasised to ensure the ethical and effective use of AI.

As new governmental policies and laws emerge to provide guidance to the global tertiary and higher education community, it will be useful to benchmark these Australasian findings against similar institutions in different regions to share insights and strategies for governance. ACODE will continue to monitor this space, including through international collaborations. Overall, while progress is evident, there is a pressing need for more integrated and coordinated efforts to fully realise the benefits of AI across the entire institution.

### Recommendations

- Develop Comprehensive AI Strategies with Change Management Plans: Institutions should create
  cohesive, institution-wide AI integration strategies that include systematic processes, comprehensive
  policy frameworks, and detailed change management plans to ensure uniform adoption and operational
  status.
- 2. **Promote Social and Emotional Wellbeing and Psychological Safety**: Implement initiatives that focus on the social and emotional wellbeing and psychological safety of staff and students when using AI technologies, ensuring a supportive and inclusive environment.
- 3. **Strengthen Ethical and Data Governance**: Establish robust governance structures for AI and data, including clear ethical guidelines, risk assessments, and mechanisms to protect sensitive data, ensuring responsible and secure AI usage.
- 4. **Develop Change Management Leadership Skills:** Institutions should develop skills in leaders to manage change in complex and dynamic environments.

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