

# Institutional responses to ChatGPT: Analysing the academic integrity policies of four public and private institutions of higher education in Australia

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ChatGPT and other generative artificial intelligence (GenAI) tools have disrupted teaching and learning in higher education and pose a potential threat to academic integrity. Although most tertiary institutions have in place policies on how to respond to breaches of academic integrity by students, these policies may not always be clear on how to best approach the potential impacts of GenAI to ensure academic integrity can be maintained. Consequently, this paper presents an analysis of the academic integrity policies and procedures of four Australian public and private institutions of higher education where I teach. Applying the elements of access, approach, responsibility, detail, and support from the framework developed by Bretag and her colleagues (2011), and including the additional elements of currency and flexibility, findings from document analysis of these policies suggests that not all of them contain all these elements so may not be effective enough to respond to the unauthorised use of ChatGPT by students. I argue that not only do policies need to be more regularly updated, but that more clarity and guidance is required for all stakeholders. Timely communication of relevant policy would be one way to maintain a positive culture of academic integrity in institutions of higher learning.

**Key Words:** academic integrity; policies; institutional responses; generative artificial intelligence (GenAI); ChatGPT.

## 1. Introduction

In late 2022, universities in Australia became aware of ChatGPT at a time when most students and academics were on extended breaks from their studies. Among other actions taken, some institutions amended their academic integrity policies to consider this emerging threat, even as they were unsure of what the implications of using generative artificial intelligence (GenAI) tools in teaching and learning might be. When academics and students returned to university at the start of the first semester in 2023, most were still unsure of the impact ChatGPT would have as the GenAI landscape was still rapidly changing.

To date, the literature on the use of GenAI in higher education is still emerging with some researchers outlining the benefits of ChatGPT (e.g. Cotton et al., 2023), but also the difficulties in detecting its use in students' work (Perkins, 2023; Abd-Elaal et al., 2022) and the challenges and concerns artificial intelligence presents to academic integrity (Cotton et al., 2023). Despite a lack of primary research on the best approach for institutions to take in responding to GenAI, some experts in the field of academic integrity have provided some guidance. For example, Foltynek et al. (2023) have provided recommendations to European universities on the ethical use of artificial intelligence in higher education. These recommendations include the need to develop clear definitions in academic integrity policies of what constitutes appropriate and inappropriate use of GenAI tools.

In Australia, the federal government's Tertiary Education Quality and Standards Agency (TE-QSA) has updated guides and resources on the use of artificial intelligence for all institutions of higher education in Australia (TEQSA, 2023, May 9) based on advice from academic integrity experts, including those from the Australian Academic Integrity Network (Munoz et al., 2023).

In light of the above observations, the objective of this paper is to critically analyse the academic integrity policies of the four institutions of higher education where I teach to explore if the information in these documents is sufficient to address the emerging threats of ChatGPT and other GenAI to academic integrity in higher education. I acknowledge that GenAI may have benefits to learning, teaching, and research in higher education (Berg, 2023; Crompton & Burke, 2023); however, a discussion of these lies outside the scope of this paper where the focus is on the management of educational integrity and GenAI through policy documents. Further, it is not my intention to compare each institution to determine which has the best policy. Rather, I will first outline the literature on what elements should form part of exemplary academic integrity policies. Using document analysis based on the framework of Miles and Huberman (1994), I will then analyse the academic integrity policies of four Australian public and private institutions to see if they contain such elements. I conclude with some recommendations on how institutions might maintain a culture of academic integrity despite any concerns about the use of artificial intelligence in higher education settings. Of course, any academic integrity policy must also include a strong educative component (Bretag et al., 2011), but the details of any such educative program lie outside the scope of this paper.

### 2. Academic integrity policies

#### 2.1. The elements of exemplary academic integrity policies

In the 2010s, the Australian Government's Tertiary Education and Quality Standards Agency (TEQSA) was in search of a framework to ensure institutions had in place good academic integrity policies. As part of the Exemplary Academic Integrity Project (2014), Bretag and her colleagues (2011) examined the policy documents of 39 institutions of higher education in Australia and found that there were five elements that made for an exemplary academic integrity policy. The five elements of **access, approach, responsibility, detail,** and **support** were represented by the researchers as a Solomon's knot since they all needed to work together to make the policy document strong and help maintain a "culture of academic integrity" (Bretag et al., 2011, p. 25).

The element of **access** means that the policy should be easy to locate and understand; while the **approach** in exemplary academic integrity policies should be educative rather than punitive (Bretag et al., 2011). The **responsibilities** of each stakeholder in maintaining academic integrity should be clearly outlined, while **details** such as the range of academic integrity breaches, how these are identified and any software used should be mentioned (Bretag et al., 2011). Lastly, the element of **support** means that there should be training and resources in place for all stakeholders to enable the policy to be clearly enacted and applied (Bretag et al., 2011).

The element of access has proved problematic. Based on the framework developed by Bretag et al. (2011), Möller (2023) conducted a content analysis of the academic integrity policies of eight institutions of higher education in New Zealand and found that while these policies included both punitive and educative approaches, her results also show that access to these policy documents (through publicly available websites) was not straightforward for most institutions as "the average number of clicks it took to reach a university's primary academic integrity policy document [from its home page] was 4.6" (Möller, 2023, p. 342). Similarly, a study by Stoesz et al. (2019) found

that access to the academic integrity policies of Canadian colleges required an average of three clicks required to find them.

In my doctoral study on the perceptions of academic staff of the academic integrity policies, I found that most academics were aware that their institution had an academic integrity policy, but only half of them had accessed the policy when responding to student academic misconduct (de Maio et al., 2020; De Maio, 2015). Thus, the inability to access academic integrity policies in a timely manner to respond to incidences of student academic misconduct may be an issue.

The element of support mentioned as part of an exemplary academic integrity policy may also need attention, as research suggests that support and where to find support may be missing from policies (Möller, 2023; Miron et al., 2021; Stoesz et al., 2019). For example, Stoez et al. (2019) found that 18 of the 28 documents they examined did not include support for students or staff. Miron et al.'s (2021) review of the academic integrity policies of 23 Canadian universities found that none of the policies met all the core elements of an exemplary academic integrity policy.

An element which is not mentioned in the framework developed by Bretag et al. (2011) but which may be considered important in light of the potential for misuse of GenAI by students, is that of **currency**. Morgan (2023) examined the academic integrity policies of some Australian universities to see if they had considered the emerging threats of contract cheating and artificial intelligence. Utilising an autoethnographic approach based on his experience as an academic integrity investigator, and the framework developed by Bretag et al. (2011), he concluded that most policies were dated and in need of more frequent and urgent reviewing.

The Australian Academic Integrity Network (AAIN) has also suggested that institutions should regularly update their academic integrity policies and communicate these updates to their staff and students (Munoz et al., 2023). In their update to the higher education sector, TEQSA (2023, January 18) endorsed the recommendations of AAIN, reaffirming that academic integrity policies should be current and updated regularly. However, both organisations (TEQSA and AAIN) do not indicate how often such policies should be updated.

In 2022, TEQSA reviewed the policies of all higher education providers in Australia and found that most policies did not provide clear definitions of how artificial intelligence software or tools could constitute academic misconduct (TEQSA, January 18). This review took place before the threat of ChatGPT to academic integrity was evident, and no further review by TEQSA has taken place, although the regulator has provided some resources on its website to help higher education institutions uphold academic integrity in general (TEQSA, 2023, April 20).

Not only should academic integrity policies be current, but communication of any changes to academic integrity policy should also be conducted in a timely manner (TEQSA, 2023, January 18). Findings from my doctoral study on the perceptions of academic staff of the academic integrity policy of their institution suggest that more than half of them were unaware of any recent amendments or revisions made to their university's policy (De Maio, 2015).

Another element which was not included in the framework of Bretag et al. (2011) is that of **flex-ibility**. Policies should be flexible enough to incorporate new types of academic breaches – known and not yet known. This may involve rethinking and broadening definitions of academic misconduct currently found in academic integrity policies.

# 2.2. Analysing the academic integrity policies of four Australian institutions of higher education

The four institutions that I worked for in Semester 1, 2023 will be referred to as Institutions A, B, C and D, respectively. Institutions A and B are large, public Australian universities where I taught postgraduate international students and both international and domestic higher degree by research (HDR) students on campus, respectively; Institution C is a smaller Australian university where I taught undergraduate international students online; while Institution D is a private college which

is part of a large private higher education provider where I taught international postgraduate students on campus. Since the focus of this paper is only on policy statements, and not on educative approaches, the background and educational level of these students is not relevant to the discussion in this paper, save to say that, based on my experience, the students are diverse. In addition, while the observations made regarding the academic integrity policies of these institutions may not generalise to other higher education institutions in Australia, and while updates may have been made to their academic integrity policies since the time this study was conducted (February-July 2023), it is hoped that the findings may provide guidance on the elements institutions should consider in future reviews of their academic integrity policies.

Applying the five elements of access, approach, responsibility, detail, and support outlined by Bretag et al. (2011), together with the additional elements of currency and flexibility, I conducted a document analysis of the academic integrity policies of the four institutions where I taught based on the framework of Miles and Huberman (1994) and found the following.

#### 2.2.1. Access

Accessibility includes that the policies are easy to locate and that they are written in clear language which is easy to understand. The academic integrity policies of Institutions A and C were publicly available. An average number of two clicks was required to access these policies from the home pages of each institution using the search term "academic integrity policy". The academic integrity policies of Institutions B and D were not publicly available, but as a sessional academic at these institutions, I was able to access their academic integrity policies through their intranets. Although accessing Institution D's policy was straightforward, Institution B's policy was accessed indirectly by clicking on the link for academic integrity procedures which was available on the page that contained a list of policies. Thus, the academic integrity policies of most of these institutions were easy to locate and not found to be an issue.

In terms of the policy documents being written in clear language and easy to understand, the policy documents from Institutions A, B and D focussed specifically on academic integrity, were less than seven pages in length, and contained headings and subheadings for easy navigation. On the other hand, the policy document of Institution C was 10 pages in length and contained not only information on academic integrity, but also on academic quality and standards and also had embedded links to other policies, rules and procedures (Academic Quality, Standards and Integrity Policy, n.d.). I suggest that policy documents should not be longer than 10 pages as wordy policies might discourage students and staff from reading them. Further, most details are usually included in procedures and guidelines that support academic integrity policies and detail processes for responding to academic integrity breaches. However, a discussion of these supporting documents is outside the scope of this paper.

#### 2.2.2. Approach

The element of approach considers "the principles and values for academic integrity and academic practice" (Bretag et al., 2011, p. 26). This element is evident in "the language and substance of the entire policy" (Bretag et al., 2011, p. 26). Ideally the approach should be educative rather than punitive and this can be determined by the words used. For example, words such as 'penalties', 'misconduct' and 'enforce' suggest punishment of the student is the approach taken. Words like 'integrity', 'honesty', and 'fairness' suggest a more educative approach. The policies of Institutions A and D specify that their approach to academic integrity is based on a comprehensive education, yet they fail to define what such an approach might be. Through the language used in the policies of these two institutions, it appears that their approach is educative in nature. For example, Institution D uses words like 'respect' and 'genuine' to show its culture and values. The approaches to academic integrity for Institutions B and C were not specifically mentioned in

their policy documents, however, it appears that the language used in their policy documents suggest that they are also primarily educative in their approach.

#### 2.2.3. Responsibilities

The responsibilities of a number of individual stakeholders are clearly outlined in the academic integrity policies of Institutions A and D. Students, staff, teaching staff, unit coordinators, Associate Deans (Teaching and Learning), Associate Deans (Research), Deputy Vice-Chancellor (Research), Deputy Vice-Chancellor (Education), Director of Student Administration, unit review committee, Student Academic Integrity Coordinator, Manager (Learning Support) and Senior Deputy Vice Chancellor are the 13 stakeholders mentioned in Institution A's policy while students, teaching staff, unit coordinators, academic integrity coordinator, exam coordinator, academic program coordinators and academic director are the seven stakeholders outlined in the academic integrity policy of Institution D. Institution B's academic integrity policy outlines three stakeholders (university, students, staff) as being responsible for maintaining a culture of academic integrity. Institution C's policy does not mention any specific stakeholders.

#### 2.2.4. Detail

Apart from Institution C, the academic integrity policies of the other three institutions did not mention the levels of academic misconduct. None of the policies of the four institutions provided information on how these levels could be identified and what software to use. However, such details might be found elsewhere in academic integrity procedures, or guidelines. An analysis of these supplementary documents is outside the scope of this paper.

#### 2.2.5. Support

None of the policy documents from the four institutions specifically outlined the types of support available to students and staff; however, the policies of Institutions A and D contained statements suggesting that they were committed to supporting staff and students while the policy of Institution C contained statements on educating students and sharing best practice among academics. Institution B's policy did not mention any support for either students or staff.

#### 2.2.6. Currency

Even though the academic integrity policy of Institution B was not publicly available and was difficult to access via the intranet, the policy was updated in early 2023 to include information addressing GenAI concerns. Institution C's policy was also updated in 2023 to also include similar information, while Institutions A and D's policies were last updated in 2021, before GenAI was seen as an issue needing to be included in the policy.

#### 2.2.7. Flexibility

In terms of the flexibility of academic integrity policies to incorporate definitions of academic misconduct, the policy of Institution A contained examples of academic misconduct but no reference was made to generative artificial intelligence or ChatGPT; Institution B had added a clause that defined academic misconduct as including the unauthorised use of artificial intelligence (but no explanation of what 'unauthorised use' might be was included). The academic integrity policies of Institutions C and D contained no examples of academic misconduct.

#### 2.2.8. Summary of key findings

The findings from this analysis of the academic integrity policies of the four institutions are summarised in Table 1.

To summarise, an analysis of the academic integrity policies of four Australian institutions of higher education has shown that they differ in terms of the core elements found within them. In terms of accessibility, the publicly available academic integrity policies of two institutions were easy to access, with only two clicks required from the home pages to find them; however, accessing the policies of the other two institutions through their intranets proved difficult. The language used in the policies of three of the four institutions was accessible in terms of being easy to understand. The policies of two institutions appear to indicate an educative approach to academic integrity that aligns with values such as respect and honesty. Such an approach in the academic integrity policies of the other two institutions was not evident, although it could be implied that their approaches to academic integrity through the language used was also educative in nature. The responsibilities of various stakeholders can be found in the academic integrity policies of three institutions and the number of stakeholders ranged from three to 13. With regards to the element of detail, the policies of three of the four institutions did not mention any levels of student academic misconduct, nor how these levels could be identified. Although the policies of two institutions stated they were committed to academic integrity, none of the policies of the four institutions contained information about the support available to staff and students. However, it could be that such support might be found in supporting documents such as academic integrity procedures and guidelines (which are outside the scope of this paper). In terms of currency, only two of the four institutions had recently updated their academic integrity policies to include references to GenAI. Of these, only the policy of one institution contained a definition of academic misconduct that included the unauthorised use of artificial intelligence. Finally, in terms of the flexibility of policies to incorporate definitions of academic misconduct that included the unauthorised use of GenAI, only the policies of two institutions had done so.

	Approach	Responsibilities	Detail	Support	Currency	Flexibility
Institution A	✓	✓	×	✓	×	✓
Institution B	×	$\checkmark$	×	×	$\checkmark$	$\checkmark$
Institution C	×	×	$\checkmark$	$\checkmark$	$\checkmark$	×
Institution D	$\checkmark$	$\checkmark$	×	$\checkmark$	×	×

**Table 1.** Elements of exemplary academic integrity policies found in the academic integrity policies of Institutions A-D.

#### 3. Conclusion and recommendations

In conclusion, with the potential for increased use of ChatGPT and other GenAI tools by students in higher education institutions, it is imperative that exemplary academic integrity policies are in place to address any concerns about breaches of academic integrity by students using artificial intelligence in their work. Using document analysis based on the framework of Miles and Huberman (1994), I analysed the academic integrity policies of four Australian public and private institutions where I work to explore if they contained the five core elements of access, approach, responsibility, detail, and support as outlined by Bretag et al. (2011) and two additional elements of currency and flexibility. Findings suggest that the policies of these institutions are lacking in one or more of these elements and no policy included all the elements of an exemplary academic integrity policy.

Based on the above analysis, and on the available literature, I would make the following recommendations to assist institutions of higher education maintain a culture of academic integrity in light of recent developments in GenAI:

- 1. Institutions ensure their academic integrity policies are up to date (TEQSA, 2023, January 18) and contain the core elements of exemplary academic integrity policies as suggested by Bretag et al. (2011).
- 2. Institutional leaders communicate early and frequently to all stakeholders any changes made to their academic integrity policies, procedures, and guidelines, especially in light

of any newly identified problems related to GenAI tools (Munoz et al., 2023; NAIN, 2023; TEQSA. 2023, May 9).

3. Training and education of all stakeholders (including students, academic and professional staff who are on fixed term or sessional contracts) on what constitutes breaches of academic integrity through using GenAI tools inappropriately.

I acknowledge that some institutions may have implemented some of these recommendations and that for others, implementation may be difficult and time-consuming; however, there are guidelines that have been suggested by regulatory bodies in Australia and overseas (TEQSA, 2023, January 18; NAIN, 2023) which may be helpful in streamlining the process.

Initially, a top-down approach is required where institutions clearly outline their responses to the use of GenAI tools in their academic integrity policies. Then, their positions should be communicated in a timely manner to academic and professional staff and to students. Where there is clear guidance and communication of these policies, a culture of academic integrity can be maintained by all who work and study in institutions of higher education.

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#### References

- Abd-Elaal, E., Gamage, S., & Mills, J. (2022). Assisting academics to identify computer generated writing. *European Journal of Engineering Education*, 47(5), 1–21. <u>https://doi.org/10.1080/03043797.2022.2046709</u>
- Academic Quality, Standards and Integrity Policy (n.d.). <u>https://policies.scu.edu.au/docu-ment/view-current.php?id=329</u>
- Berg, C. (2023). The Case for Generative AI in Scholarly Practice. 1-15. https://doi.org/10.2139/ssrn.4407587
- Bretag, T., & Mahmud, S. (2014). Embedding and extending exemplary academic integrity policy and support frameworks across the higher education sector: Final Report. https://ltr.edu.au/resources/SP12\_2327\_Bretag\_Report\_2014.pdf
- Bretag, T., Mahmud, S., Wallace, M., Walker, R., James, C., Green, M., East, J., McGowan, U., & Partridge, L. (2011). Core elements of exemplary academic integrity policy in Australian higher education. *International Journal for Educational Integrity*, 7(2), 3–12. <u>https://ojs.unisa.edu.au/index.php/IJEI/article/view/759/574</u>
- Cotton, D., Cotton, P., & Shipway, J. (2023). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Teaching and Education International*, 1-12. https://doi.org/10.1080/14703297.2023.2190148
- Crompton, H., & Burke, D. (2023). Artificial intelligence in higher education: The state of the field. *International Journal of Educational Technology in Higher Education*, 20(1), 1-22. https://doi.org/10.1186/s41239-023-00392-8
- de Maio, C., Dixon, K., & Yeo, S. (2020). Responding to student plagiarism in Western Australian universities: the disconnect between policy and academic staff. *Journal of Higher Education Policy and Management*, 42(1), 102-116. <u>https://doi.org/10.1080/1360080X.2019.1662927</u>
- De Maio, C. (2015). The perceptions of academic staff of academic integrity policies and procedures and their responses to student plagiarism in Australian universities. [Doctoral dissertation, Curtin University]. <u>https://espace.curtin.edu.au/handle/20.500.11937/1929</u>

- Foltynek, T., Bjelobaba, S., Glendinning, I., Khan, Z., Santos, R., Pavletic, P., & Kravjar, J. (2023). ENAI recommendations on the ethical use of artificial intelligence in education. *International Journal for Educational Integrity*, 19(12), 1-4. <u>https://edintegrity.bio-</u> medcentral.com/articles/10.1007/s40979-023-00133-4
- Miles, M., & Huberman, A. (1994). *Qualitative data analysis: an expanded sourcebook.* Sage Publications.
- Miron, J., Eaton, S.E., McBreairty, L., & Baig, H. (2021). Academic integrity education across the Canadian higher education landscape. *Journal of Academic Ethics*, *19*(4), 441–454. https://doi.org/10.1007/s10805-021-09412-6
- Möller, A. (2023). An analysis of university academic integrity policies in New Zealand. *Journal of Further and Higher Education*, 47(3), 338-350. https://doi.org/10.1080/0309877X.2022.2130195
- Munoz, A., Wilson, A., Nunes, B., Del Medico, C., Slade, C., Bennett, D., Tyler, D., Seymour, E., Hepplewhite, G., Randell-Moon, H., Arantes, J., McPherson, J., Game, J., Rhall, J., Myers, K., Absolum, K., Edmond, K., Nicholls, K., Adam, L., (...) Zachariah, D. (2023). AAIN generative artificial intelligence guidelines. Australian Academic Integrity Network. <u>https://www.teqsa.gov.au/sites/default/files/2023-04/aain-generative-aiguidelines.pdf</u>
- National Academic Integrity Network. (2023). *Generative Artificial Intelligence: Guidelines for Educators*. Quality and Qualifications Ireland. <u>https://www.qqi.ie/sites/de-fault/files/2023-09/NAIN%20Generative%20AI%20Guidelines%20for%20Educa-tors%202023.pdf</u>
- Perkins, M. (2023). Academic Integrity considerations of AI Large Language Models in the post-pandemic era: ChatGPT and beyond. *Journal of University Teaching & Learning Practice*, 20(2), Article 07. <u>https://doi.org/10.53761/1.20.02.07</u>
- Stoesz, B., Eaton, S., Miron, J., & Thacker, E. (2019). Academic Integrity and Contract Cheating Policy Analysis of Colleges in Ontario, Canada. *International Journal for* Educational Integrity, 15(4), 1–18. <u>https://doi.org/10.1007/s40979-019-0042-4</u>
- Tertiary Education Quality and Standards Agency [TEQSA]. (2023, May 9). Artificial intelligence. <u>https://www.teqsa.gov.au/guides-resources/higher-education-good-practicehub/artificial-intelligence</u>
- Tertiary Education Quality and Standards Agency [TEQSA]. (2023, April 20). *Protecting academic integrity*. <u>https://www.teqsa.gov.au/guides-resources/protecting-academic-integ-</u> <u>rity</u>
- Tertiary Education Quality and Standards Agency [TEQSA]. (2023, January 18). Sector update: Maintaining up to date academic integrity policies and procedures. <u>https://www.te-</u> <u>qsa.gov.au/sector-update-maintaining-academic-integrity-policies-and-procedures</u>