The rise of generative AI, particularly over the past few years, has raised notable issues about its use. This has been possibly most pronounced in academia, where there has been strong debate on the potential value of generative AI to augment learning outcomes versus the potential for academic dishonesty and devalued education. Whilst some papers have looked at students’ perspectives on the use of generative AI, there has been less focus exploring through what ethical perspectives or frames students see using generative AI in their tertiary education.

We interviewed and conducted focus groups and interviews with students enrolled in an Australian university business school, to explore the ethical frames through which they saw the use of generative AI. Focussing on three specific perspectives: Deontological, Consequentialism and Virtue Ethics, it emerged that no single perspective dominated, with students having a complex mix and latticework of ethical perspectives on its use, even within the same individual. We explore some potential implications for practice that emerged from the data, one of which is the role of the academic as moral exemplar.

Keywords: generative AI, students, ethical perspectives, ChatGPT, academic integrity

Introduction

There has been much recent attention paid to the rise of generative AI and chatbots in relation to student assessment (Chan, 2023). A chatbot, put simply, is an electronic tool (typically via software such as an app) that simulates conversations by replying to words or phrases it recognises. It employs algorithms designed to comprehend natural language inputs and respond appropriately with either pre-written or AI-generated responses (Salvagno et al., 2023). ChatGPT learns iteratively and is simple to use. The user can ask ChatGPT anything from ‘What’s the best omelette recipe’ through to ‘Explain Mintzberg’s 10 Managerial roles, using examples’ and get a prompt, complete, written response.

And herein lies the potential issue. The exponential development of more refined generative AI iterative text programs means that the potential to have the program write and provide the answer to a question, or a complete essay or journal article, in a way that closely reflects a human writer, is now far more apparent. And this situation will continue to progress. Nietzel (2023), citing GrandViewResearch, predict that generative AI will grow, 37.3% year-on-year from 2023 to 2030.

One of the areas where concerns have been expressed is the use of generative AI by students in their assignments. The issue raises a range of ethical, scholastic and pedagogical questions. One of the most pressing is what constitutes the ethical use of such programs when the student is submitting an assignment as ‘their work’? However, whilst this question has been the subject of a number of papers (Chan, 2023), the question of how students themselves view the use of AI chatbots in their own programs and degrees, particularly in terms of their ethical perspectives, has been less widely examined to date.

This paper presents preliminary findings of a larger study into the ethical perspectives of various student cohorts/demographics regarding the use of generative AI. The findings presented here are those of domestic female undergraduate students enrolled in a business degree at an Australian university. Employing an ethical lens framework, it examines their responses, views and ethical perspectives of generative AI in higher education, both by themselves, their peers, and their lecturers. It posed two overarching research questions:
• RQ 1: What are current business students’ views the use of generative AI tools such as ChatGPT within their academic program?
• RQ 2: What, if any, insights and implications might this have for academia?

Literature review

The Use of AI in higher education

The issue of generative AI in tertiary education has become a topic of note, both within and external to the tertiary sector, over the past year in particular. Most commentary around its use can be put into two broad considerations. The first is a concern about issues of academic integrity and the associated concerns of students earning a degree or qualification via the use of generative AI (Chan & Lee, 2023; Chan & Hu, 2023). Linked to these concerns is the fear that reliance by students on generative AI may lead to declines in students’ writing, and most importantly, capacity to critically analyse and think (Civil, 2023). The second is the potential for generative AI to facilitate teaching and learning outcomes for students. For example, Bailey et al. (2021) found that students felt the use of generative AI was useful in assisting them to generate ideas, to communicate those ideas effectively and for grammatical support. And there is support for this position. For example, Essel et al. (2022) found that the use of generative AI for learning support for students resulted in improved learning achievement, attitude, motivation and self-efficacy among students.

That generative AI is currently being used by university students is not in question. Welding (2023), in their recent 2023 survey of 1000 college students found that 43% of college students confirmed that they had used ChatGPT or a similar generative AI application in their studies. Of these, 50% stated that they used generative AI applications to directly help them complete assignments or exams. However, in contrast to the high proportion of students using generative AI, over half of students in the survey also stated that their lecturers had not openly discussed the use of AI tools with their students, with 60% of students stating their lecturers or institutions hadn’t specified what constituted ethical or responsible use of generative AI. Given that over 60% of students in the same survey stated that they considered generative AI as constituting the ‘new normal’ for work and study, the need to understand the ethical frame in which students view the use of generative AI is very timely.

The ethics of generative AI

There have been a number of studies that have focussed on student perceptions and perspectives on generative AI. One of the broadest is that by Chan and Hu (2023, p. 12), who explored student’s perspectives on generative AI. Among their findings was that students saw a number of potential positives with generative AI, but also some notable concerns. Of note was the identification by students of ethical issues as one of the challenges relating to the use of generative AI. This links to the concepts of academic dishonesty (or integrity) and plagiarism. Numerous studies have indicated that student perceptions of what constitutes plagiarism vary widely by nationality, awareness and cultural differences among other factors (see Chan, 2023 for detail). The rise of generative AI, and where it fits within the academic misconduct framework, has challenged and muddied these murky waters even further. For example, Welding (2023) explored students’ perceptions of the moral use of generative AI in academic settings. 41% of respondents agreed that it was morally wrong to use AI tools to help complete assignments and exams, whereas 27% disagreed. In contrast 38% disagreed that AI tools should be, with only 27% agreeing they should. Finally, 48% agreed that it is possible to use AI in an ethical way to help complete assignments, with only 21% disagreeing. What therefore emerges is not only disagreement among faculty and institutions about the use of generative AI, but disagreement and confusion among students themselves regarding its use in academic settings. This further confounds the very problem academics and academic institutions are facing in relation to generative AI. Accordingly, what is currently lacking from the literature is a deeper examination of how students view the use of generative AI through an ethical lens. Beyond the perspective of faculty and institutions, we need to get the insight of students themselves in terms of, not only their use of generative AI, but their views on its use, both the potential benefits, and the concerns and ethical issues surrounding it (Fyfe, 2022; Brossi et al., 2022).

This paper is part of a larger study investigating the ethical perspectives university students have regarding their use of generative AI. Whilst the larger study considers a more complete range of ethical perspectives students may hold, we are limiting it to three normative ethical perspectives for this paper: deontological, consequentialism and virtue ethics.
Deontology

Deontological ethics are duty-based and concerned with actions rather than consequences. It is the act that matters, and we all have a duty to do the right thing regardless of the consequences it produces. A key figure within deontology is Immanuel Kant (1724-1804), in particular the first two of his four categorical imperatives (Kant, 2003). Categorical imperative 1: The Principle of Universality states: “act only in accordance with that maxim through which you can at the same time will that it become a universal law” (p. 421). Put simply, if the actor isn’t willing for the action to be applied to everyone, then the act isn’t ethical. An example here is lying. Categorical imperative 2: The Principle of Humanity states - “So act that you use humanity, whether in your own person or in the person of any other, always at the same time as an end, never merely as a means” (p. 429). This for example is why lying isn’t ethical from a deontological perspective, as the recipient of the lie becomes simply a means to an end.

Consequentialism

Consequentialism holds that morality of an action is determined by the consequences of that action. Put simply, the morality of an individual action is based on the specific outcomes of that action, a form of consequentialism known as ‘act utilitarianism’. For example, if a doctor allowed one person to die to save six others, then, despite allowing that person to die, from a consequentialist perspective, the act would be considered as inherently moral. This notion of the morality of action can be enshrined in rule utilitarianism, which emphasises the importance of following general rules that have been determined to bring about the best overall consequences. In essence consequentialism supports the greatest good for the greatest number – in essence the principle of utility. However, how this good is assessed – whether hedonistic, and whether probable or actual outcomes – is a matter of conjecture.

Virtue ethics

Virtue ethics is the final of the three major approaches that falls under normative ethics. Emphasising virtue or moral character, within virtue ethics there are no categorical imperatives, no rules or duties (as found in deontology) and no principle of utility or emphasis on outcomes (consequentialism) (Kraut, 2022). Virtue ethics places emphasis on cultivating virtuous character traits and making ethical decisions based on the virtues that lead to human flourishing, promoting a morally good and fulfilling life. Ethical virtues are intermediate between two states, a ‘golden mean’. At one end is excess, at the other, deficiency. For example, cowardness as deficiency and overconfidence as excess. This intermediate, or mean, is not fixed, and considers individual circumstances.

It is these three ethical perspectives that provide the frame through which we examine business students’ views of generative AI, both their own as well as others, in tertiary settings.

Research design

To allow for an in-depth exploration of the phenomenon under study, the findings presented here employed a qualitative approach for data collection and analysis. Focus groups, combined with semi-structured interviews formed the core research design in this initial stage of the study. Focus groups were selected as the primary source of data collection due their ability to “empower research participants’ who then ‘become an active part of the process of analysis’” (Kitzinger, 1995, p. 300). The decision to split participants based on demographic data such as gender and method of study was influenced by a general consensus among researchers where homogeneity within focus groups will assist in capitalising on individuals shared experience. Given the sensitive nature of the topic, participants were also offered the opportunity to participate via individual interview.

Participants were recruited via a combination of non-probability sampling method, informed by a purposive approach, as well as some snowball sampling. In total, 2 focus groups (5 in a group) and 2 interviews were conducted. All participants were female, domestic, undergraduate students currently enrolled in a business program at an Australian university. Ages ranged from 21-38. Focus groups and interviews were all conducted face-to-face and went for 60-90 minutes each. The interviewer/focus group facilitator was not a lecturer of any of the students in the study.

Analysis

Data analysis followed a two-stage approach. The first stage was an inductive employment of thematic analysis,
employing open and subsequent axial coding of the data (Creswell et al., 2007). The second stage employed a
deductive thematic approach. Utilising the three main ethical approaches as the conceptual framework, this
stage involved a theoretically driven approach to data coding (Boyatzis, 1998). Themes that emerged were
confirmed via the process of constant comparison.

**Ethical considerations**

Participants in the study were informed that their participation was voluntary, and they had the option to
withdraw their consent to participate in the study at any stage (until publication). Participants were also ensured
that all measures would be taken to protect their anonymity and confidentiality throughout the study and across
the presentation of the data. This included assurance that anything disclosed during the sessions would remain
confidential and not subject to future academic integrity scrutiny or penalty. Ethics approval was sought and
obtained from the relevant Human Ethics committee at the university.

**Findings and discussion**

It was apparent that the female business students in the study viewed the use of generative AI through a range of
different, and often contradictory, ethical perspectives. All three of the main normative perspectives outlined
(deontological, consequentialism and virtue) emerged from the data.

**Consequentialism**

There were a number of responses students gave that demonstrated a consequentialist ethical frame through
which they were viewing the use of generative AI in assignments. For example, when discussing the use of
generative AI, several ‘pain’ inducing outcomes were mentioned. These outcomes included: lack of faith the
answer would be correct, feeling stupid if getting hired (and fired) and not knowing how to do your job.
Interestingly, getting caught by the university was not a prominent outcome concern.

One clear outcome concern that emerged in relation to the accuracy or quality of the information/answer
provided by AI. In some ways this directly reflected act utilitarianism. For example:

- Have tried it for a test but it wasn’t specific. I was hoping for an answer
- If I knew it [the answer] would be right, I would use it

In these instances, we see a strong act utilitarian ethical frame emerging. A common limitation of utilitarian
ethics is the difficulty predicting outcomes in certain contexts. In the case of generative AI, the students see the
outcome as unpredictable, or uncertain, and therefore impacts on their behaviour. The ‘good’ provided by the
outcome is questioned. If over time the accuracy and thus students’ confidence in generative AI tools is
increased, our findings suggest that improved confidence of a positive, or correct answer outcome will lead to an
increase in willingness to use generative AI by business students.

Interestingly, when asked about the use of generative AI by lecturers to mark their assignments, trust in outcome
was again a clear concern for students. For example, one participant (B) noted that:

- If a computer marked it, it’s too black and white. You need the human element. A human can say
  – I can see where this is going and give 2/5, AI might give 0/5

In contrast however, it was perhaps evident that was already some resentment, or decreased utility, from some
students employing an act utilitarianism approach. In this case the student expressed a rule utilitarian view of the
use of generative AI, discussing the impact of the use of generative AI by some students to create negative
outcomes for others. For example, one participant (F) noted:

- And now, because of this we have to have more invigilated assessments which usually means
  exams. I’m a good student but I panic in exams. I get stressed and never do as well.

One concern of consequentialist ethics is its potential for ‘ends justify the means’ (i.e., causing potential harm to
justify other people living well). Students were cognisant of this in relation to other students’ use of generative
AI and the potential for negative outcomes for others. This may include increased invigilated assessments,
adjustment of assessments or forms of assessment they may not do particularly well in.

A final area where consequentialist ethical perspectives emerged from the focus groups and interviews were the use of generative AI to produce a positive outcome given other broader contextual factors the students faced. For example, the use of generative AI to save time on research and writing assignments was seen as providing a positive outcome for students given other pressures they faced. For example, one participant (Z) stated that:

[I’m] struggling to get it all done without it (working 30+ hours)

Another participant conferred with this view, stating:

You need a degree these days and AI is helping with that…

In these cases, the act is an assessment of its utility. In other words, the longer-term future outcome of a job, a career and getting their degree is the greater good, justifying the use of generative AI if it is functional towards that outcome.

**Virtue ethics**

As discussed, virtue ethics emphasises virtue or moral character. The main elements of this approach embedded in participants views included the balance between excess and deficiency (the golden mean), as well as the impact of moral exemplars on the behaviours of the students in relation to generative AI.

**The Golden Mean**

The golden mean is the intermediate point between excess and deficiency. Participants’ responses demonstrated that for some not using generative AI appeared to represent the vice of deficiency. Being deficient, or not using generative AI, presented some key concerns for participants. These included the advantage that students using it may possess, as well as the perception that generative AI would play a part in their future careers. By not learning how to engage with and use this technology, they would be left behind. Finally, consistent with Chan and Hu (2023), it was seen as appropriate (not unethical or immoral) to use it to assist with what was often described as the ‘uni’ or the administrative tasks required of students:

I use it for things I know already or things that to me represent the administrative side of uni and I don’t want to do

At the other end of the scale, not studying and relying entirely, or at least heavily, on AI would represent the vice of excess. Students found this approach to generative AI use to clearly breach a virtue ethics frame, with one stating:

If I used it and had done the work, then yeah. But someone else who has used it and done nothing? Well - that’s not right

The mean position between ‘using it in an entirely reliant manner’ to ‘not using it all’ seemed to represent the point where they perceived the use of generative AI was acting morally. The golden mean considers context and individual circumstances. Students again reflected a virtue ethics position when advocating for the use of generative AI for certain groups of students. For example, one participant noted the potential for generative AI by students who might have a particular disability:

Some people have dyslexia and stuff. Shits me they can’t use it to get over a potential hurdle

**Moral Exemplars**

Respondents noted an interesting duality in terms of their view of using generative AI in different courses. In courses where the lecturer provided an educational experience that they perceived as of quality, and created genuine engagement, then the desire to use generative AI was diminished or even absent. However, this was not the case in courses where a quality or engaging educational experience was lacking. Rather than merely being based on the capacity of the student to follow along with the material, omitting the need for generative AI help, it was more driven by a feeling of ‘letting’ the lecturer down, and thus feeling negative about the use of such tools. A desire to do the right thing:
Reason I used it? The course sucked and I was over it. In another course, when the lecturer was good and engaging, then I never use it as I’d feel I was letting them down.

In such instances, we argue that academics serve as moral exemplars – individuals who inspire and lead by showing what is possible (Morgenroth et al., 2015). Moral exemplars motivate individuals beyond just moral reasoning and as argued by Frey (2009, p. 613) can include other attributes noted by Hursthouse (2006), such as dispositions, choices, attitudes and interests. Exemplars “stand out through their ability to build motivational systems” (Frey, 2010, p. 617). Within virtue ethics, “becoming a good person is not a matter of learning or ‘applying’ principles, but of imitating some models” (Statman, 1997, p. 13). Thus, can it then be argued that good students (not necessarily high achieving), become good students, by imitating models.

Deontological

As with the other two normative ethical perspectives, deontological ethical frames also emerged in the interview and focus group sessions. For example, responses emerged consistent with Kant’s first categorical imperative. This particularly was prominent from students when they were discussing topics such as first year subjects and foundations of a degree and the use of generative AI in these contexts. One participant (E) stated that:

If people studying accounting, or research methods, don’t know the basics then how can they progress? It becomes useless

In this instance, perceptions were that if students were using generative AI to simply pass foundation knowledge that was core to the program, then generative AI failed the first test of categorical imperative one (i.e., generalising the action no longer makes any sense because it contradicts itself, then it is wrong to use that maxim as a basis for action).

For others however, their perception of their own use of generative AI passed the necessary tests for categorical imperative one. For example, once the rule generalised it still made sense:

When I go to the doctor I see my GP using it to Google – I don’t see the difference

Accordingly, in their view, the use of generative AI also passed the second test for categorical imperative one, about whether they would live a in a world where this was followed by everyone:

When I go to work, the computer does it. We’re living in the real world.

From the perspective of Kant’s second categorical imperative, for the most part participants felt comfortable using generative AI as a means to an end but were largely hesitant about using it as a mere means to an end. For example, participants spoke about using it to assist them in their research or even as means to help generate ideas. For example, one participant (B) stated.

I use it to recommend textbooks that might be useful or a starting point for research

Likewise, another participant (G) conferred with this view:

I use it to generate ideas, help spark something when I have a bit of a ‘writers block’

In this respect, students’ perception of using it as means to an end was acceptable, as the students also viewed that they had upheld their duty, or proper intention in performing the action. In contrast, participants were, for the most part, were uncomfortable or against using it to generate an entire piece of work – or a mere means to an end. Participant (E) reflected this view, noting:

Using it for ideas about papers or topics is one thing, but getting it to write an entire essay, that’s just wrong

Finally, regardless of their own views of using generative AI, participants were almost unanimously against it being used by academic staff for marking and generating lecture content. The complete universality test includes
the golden rule (‘if you aren't willing for the ethical rule you claim to be following to be applied equally to everyone - including you - then that rule is not a valid moral rule’), was failed by most and only passed by the few who were anti generative AI use. Comments in relation to academic staff not using generative AI were numerous and included:

- It needs the human element
- There needs to be an expert on the other end

Implications for practice

What emerges from the findings is that business students’ perspectives on generative AI use widely vary across a range of ethical frames. It is apparent that there is not a single universal ethical perspective that students have in terms of the appropriate use of generative AI in academic settings. Perspectives, often held by the same student, varied across consequentialist, deontological and virtue ethics frames. This highlights the complexity inherent within the issue of student use of generative AI in academia, with Lee et al. (2021) finding very little consensus among academics in terms of what and how to teach generative AI in tertiary settings.

Regarding outcomes of students’ perspectives of the use of generative AI, our findings suggest that it is important to remind, or illustrate, to academics that managing/mitigating generative AI use isn’t just about preventing students from using it. It is also about managing it a way where overall learning outcomes are enhanced, with students not being punished by the strategies we put in place. Whilst recent times had witnessed a shift away from assessments such as face-to-face invigilated exams for pedagogical reasons (Cartner, 2020), preventative measures put in place as a reaction to the use of generative AI have seen the return of such assessment methods. Accordingly, generative AI requires considered and nuanced deliberation by academics on assessment and course design, focussing on how to maximise the benefits of generative AI, without compromising core learning outcomes. One example would be to give students a question they then input into generative AI. Then, the assignment is the student’s critique of the answer in terms of its accuracy and relevance. In this example, generative AI becomes a tool that enhances the opportunity for greater critical analysis and thought by the student. Perceptions of outcomes are also important to consider. For example, with universities increasingly being run as businesses, and students seeing themselves (and being perceived) as customers, if a perceived outcome of AI use is increased efficiency, this adds another layer of complexity to current discussions surrounding the increasing costs/fees of tertiary education. One student (R), for example, made the comment that:

- Well if lecturers will use it to be more efficient will there be a reduction in our fees?

Finally, our findings suggest that one of the key ‘soft areas’ where the sector can make an immediate impact in terms of students’ use of generative AI relates to our finding of the academic as moral exemplar. Frey (2009, p. 216-217) argues “the virtues displayed by individual members contribute to the well-being of the surrounding moral ecology. As part of the feedback loop, the actions and habits of the moral agent, in this case the academic, feed back into the actions of the student. Importantly, a moral ecology will either “thrive or suffer depending on how well it is supported by its members” (Frey, 2009, p. 217). Such an ecology cannot be expected to survive on its own. Thus, the creation and/or maintenance of an ecology that supports rather than constrains academics in their ability to produce quality educational experiences becomes an important part of enabling academics to become, or continue being, exemplars for their students:

According to education through moral exemplars is more effective than education focused on principles and obligations, because it is far more concrete. If these exemplars and their virtues are portrayed in an attractive way - as they surely can be - the motivation to imitate them will be strong (Statman, 1997). As such whilst ethical content and teachings have become a recent focus for universities, enabling a moral ecology where moral exemplars have the time, space and ability to practice quality and engaging educational experiences becomes as, if not more, important than ensuring curriculum based ethical teachings. It must be noted that this paper details only responses from female business students at a single university. This is the first part of a more comprehensive study, expanding the scope to include students across diverse demographic backgrounds, multiple programs and institutions.
References


Note: All published papers are refereed, having undergone a double-blind peer-review process.

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