

The other side of AI: Writing, thinking and creativity in an age of Artificial Intelligence

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Artificial Intelligence (AI) programs such as ChatGPT have illuminated the previously quintessential human capacity for creating writing. This paper investigates the complex intersections between writing, thinking and creativity through addressing two key dichotomies that characterise any act of writing: namely, by first framing writing as either recording (already known) information or as an act of creation, and secondly, writing as the expression of convergent and/or divergent thinking. It speculates how each of these contrasting forces may intersect with AI in the academic writing space. It concludes by considering implications of these intersections for the practices of Academic Language and Learning Advisers and academic writing teachers.

Key words: Academic writing; Academic writing pedagogy; Creativity; Thinking styles; ChatGPT; Artificial Intelligence

1. Setting the scene: The Graduate Student Orientation Fair

I am on the Academic Skills booth at this high-spirited event. An unpredictable tide of students sweep past my table, many high on free chocolate and lollies. Among them, tight-knit groups of international students, often clustered by country of origin, linger expectantly by my table. Raising my voice above the din, I respond to their enquiries with what I hope is a friendly yet knowledgeable air. A tall, male student stops by, looking like he is up for a chat.

“So, what is this thing, this Academic Skills?”

I respond with my usual spiel about helping students with their academic and study skills – writing, reading, time management and the like. I ask him what he is studying and find out he is starting a doctorate in IT systems design.

“Do you think you will need help with anything like reading and writing?” I ask, a tad hopefully.

A quizzical look overtakes his face.

“But now we have the AI and it helps so much with the writing. What can you offer more than that?”

My face drops a little. Why would he think such a thing?

Unfazed by my reaction, he continues. *“AI is fantastic; so convenient. Now I need not worry so much about the writing, putting together the words. I can concentrate on the ideas, the real work of the PhD. The program can fix up my language, make it better. Makes me feel relax.”*

He fails to pick up my distress at his words and I offer no defence of my work; this casual negation of what I do, day in, day out. I have heard many arguments around AI in the past year and witnessed much hand-wringing in the process. But this commencing student's words have the effect of rattling me more than I can ever let on. It seems my job is on the line here.

His words continue to ring in my ears as I leave the event. Graduate research students, such as my questioner, clearly appreciate the intrinsic benefits of AI; how it can 'fix' their writing and therefore, free them up to focus on the 'real' part of their studies – generating the innovative ideas and novel notions that drive their higher degrees. This sets me reflecting on my job and indeed the whole apparatus of teaching academic writing I have been enmeshed with for the past twenty-five years. How can we approach learning and teaching academic writing – and the thinking that both rest on – in a world rapidly transformed by generative AI? And what is the place of creativity – human and non-human – in this new world of large, disruptive and constantly evolving large language models?

But first things first. Writing has always been enmeshed with technology. Since symbols, letters and words were first set down in the sand or on stone, writing has moved with the times. Paper, quills, pens, typewriters and keyboards are all artefacts that have directly emerged from developments in the technology of writing and the process of capturing words for posterity. In late 2022, the world of writing was shaken up yet again with the flashy relaunch of widely accessible, generative Artificial Intelligence (AI) programs. Offerings such as [ChatGPT](#) and other generative language models have shown us how written communication might be approached and accomplished differently.

This article takes a step back from the recent development of large language models (LLMs) to consider the perspectives of both a practising academic writing teacher (myself) and wider implications for the practice of Academic Language and Learning (ALL) professionals. I begin by investigating two dichotomies that I believe exist at writing's core:

1. Writing as recording (already known) information versus writing as an act of creation.
2. Writing as the expression of convergent versus divergent thinking.

As part of my analysis of each of these pairings, I contemplate how they might intersect with AI in the academic writing space.

But who am I to speak about this large and rather daunting topic? I settled upon these two dichotomies through undertaking my own doctoral research into creativity in graduate research writing contexts in my own workplace. During this investigation, I witnessed the struggles of my student participants – Arts doctoral writers – all of whom wished to include elements of creativity and creative 'expression' in their academic work. Many constraints, however, blocked these desires to write creatively. Uncovering this conundrum coincided with the emergence of LLMs such as ChatGPT, and it seemed highly appropriate to apply my research findings to these new tools which have re-focused attention on the place of human creativity in writing.

2. Writing as recording (already known) information or writing as an act of creation

One useful way to frame the development of writing over time is to position it within the socio-historical contexts in which it has traditionally occurred. While writing originally evolved to record trade and official histories, it developed into a more creative practice over time, facilitated by the development of simple alphabets. These alphabets enabled people to capture their own thoughts, wishes and desires in a way that could either be private or public. Thus, although writing was invented to record or document information, it rapidly evolved into a method to aid thinking by freeing the imagination and creative thought and therefore, bring new knowledge into being.

This fundamental dichotomy between writing as mere documentation and writing as personal creativity is burnt into the soul of writing; it is part of its ‘DNA’.

This conflictual duality is reflected in the role of writing in academic contexts. Since the emergence of the first universities in medieval Europe, higher education institutions have frequently been associated with the preservation of existing information. The convention and conformity that still characterise many disciplinary discourses spring from this period when scholars worked with a limited range of sacred and canonical texts that students were obliged to copy verbatim as they were read aloud by senior scholars. Indeed, it is from the Latin term *lectura* – meaning ‘to read’ or ‘read aloud’ – that we are left with the word ‘lecture’ (French & Kennedy, 2017). Although the tradition of academic writing as verbatim recording declined after the invention of the printing press, vestiges of it still remain in the contemporary university. Indeed, many academics might agree with Dunleavy (2003) when he frames academic writing as “an act of commitment, a decision to firm up what we think, to prevent constant reprocessing and reconfiguring” (p. 26). In this process of preserving information, learning about what is expected and acceptable in academic writing and then adhering to an existing template when producing a written piece still occupies a major part of any student’s experience of writing for the Academy.

Existing alongside this pressure for conformity in writing, however, the presence of imaginative creativity can also be felt in academic writing contexts. At a fundamental level, it is there in the act of committing words to the page or screen. For, before the writer writes, there is nothing; a vast emptiness. Then, the physical act of writing occurs and becomes visible to a reader. Thus, even though written script can perform so many different functions, the conjuring trick of producing a piece of writing is inherently creative, if not downright magical. In fact, Yagelski (2011) observes that during the act of composition, so engrossing does the physical act of writing become that it is “almost synonymous with [one’s] consciousness [and] in this sense, is a way of being; it is an ontological act” (pp. 103-4). In other words, writing brings ideas to textual life.

As well as ratifying or extending what is already known, writing can also function as a way of knowing or bringing new knowledge into the world (Richardson, 1998; Locke, 2015). In fact, Ong (2015) believes it has the capacity to change the way we think, asserting that written literacy has transformed human consciousness through a fundamental restructuring of our thought processes. Confirming this wider and intrinsically creative dimension of writing, Hayot (2014) declares:

Writing is not the memorialization of ideas. Writing distils, crafts and pressure-tests ideas – it creates ideas ... You cannot know what your ideas are, or mean, or do until you set them down in sentences. (p. 1)

In sum, this framing of writing as simultaneously a process of thinking and as a method of discovery is in almost direct contrast to the idea of writing as ‘mopping up’ after knowledge has been created; an exceedingly common and in some disciplines, almost ubiquitous, view of its role in higher education.

3. AI intersections and affordances

Enter AI. As we attempt to reconcile the intensely human act of writing with what emerging LLMs can provide, many questions emerge. For instance, how will these new tools impact on the thinking skills required for any piece of academic writing? And, by potentially removing the emphasis on the creative and/or original thinking as lying at the base of writing, are we returning to an emphasis on writing as recording as opposed to writing as creating knowledge? Ultimately, comparing these programs to human writers, how effective are they in the business of knowledge creation and dissemination so valued by the Academy? Recent research would suggest that they may be equal to, if not better than, many student writers in the performance of several core academic tasks such as reflective writing (Li et al., 2023), although other scholars view its creative abilities more cautiously (for example, Cropley, 2023). I cannot pretend to offer any definitive or

indeed, comprehensive answers to these important and complex questions, rather, tapping into the spirit of the zeitgeist, I will ask ChatGPT to respond.¹

My first question gets straight to the point: How well can ChatGPT perform in the generation or creation of ideas required for a piece of academic writing? As per usual in the world of AI, the ChatBot is not backwards in coming forward to praise its capabilities in this area, albeit with a standard ‘let out’ clause:

Chat GPT can be a valuable tool for generating ideas required for academic writing, but its effectiveness may vary depending on the specific topic and context. Here are some ways in which ChatGPT can assist in generating ideas for academic writing. (OpenAI, 2023)

We then hurtle into the predictable, multi-bullet pointed list format seemingly treasured by all AI ChatBots. It spits out eight points in the blink of an eye (OpenAI, 2023):

1. Brainstorming ideas
2. Outlining and structure
3. Research directions
4. Thesis statement development
5. Content expansion
6. Citation suggestions
7. Counterarguments and analysis
8. Conclusion and implications

Analysing these in relation to our previous discussion of writing as thinking, I note the significance of point #4 on its list (‘Thesis Statement Development’). On this point, ChatGPT confidently asserts that it can, “help you formulate a clear and concise thesis statement that summarizes the main argument of your paper ... [and] suggest ways to refine and strengthen your thesis” (OpenAI, 2023). Sounds wonderful, but I probe for more information. As expected, I get a degree of backtracking from its initial bold claim:

In point number 4, I meant that ChatGPT can assist in formulating a preliminary thesis statement for your academic paper. It can provide suggestions for how to structure and phrase your thesis, helping you articulate the main argument or point you intend to make in your paper. However, refining and finalizing the thesis statement to accurately represent your unique perspective and argument would typically require human judgment and expertise. (OpenAI, 2023)

In other words, it seems that we are not going to be given a definitive thesis statement, only help articulating and refining one that we might have to come up with ourselves. This is significant as any ALL Adviser would recognise that this task – the creation of a controlling argument that drives an entire paper forward – is one of the most important tasks for student writers – and one of their most fundamental challenges. However, I am left wondering if Chat GPT always keeps to these strict, self-imposed boundaries around thesis statements and suspect that many student writers would expect it to come up with a ready-made argument for their papers.

Interestingly, I note that three points from ChatGPT’s list of eight ways it can assist with idea generation (Numbers 3, 5 & 6) offer the promise of insights and examples on a writing topic based on literature in the field. However, ChatGPT proves to be a little coy about exactly what material

¹ Note: Throughout this paper, responses from ChatGPT are identified by the use of a sans serif font which are either placed within quotation marks or block indented.

on which it bases its ideas. When pressed on what constitutes this source material, it suggests that a critical mind may be necessary “to verify the relevance, accuracy and appropriateness of the evidence and examples provided by the model as they may need to be tailored to your specific topic and context” (OpenAI, 2023). In a nod to the superiority of human capabilities in this area, the bot advises that ultimately, “human judgment and critical evaluation are crucial in determining the quality and appropriateness of the evidence and support suggested by ChatGPT” (OpenAI, 2023). This discussion highlights a major criticism that has often been levelled at AI programs, namely, their reliance on spurious, overly general or indeed, fake references.

From an academic perspective, Number 6 is worrying. Upon further prompting, ChatGPT advises that its basic analysis “might not be deeply rooted in a specific academic discipline or belief system” (OpenAI, 2023) and that, again, critical assessment and refinement by real-life humans may be needed to align the information it provides to a specific academic context. This admission draws attention to the preference shown by AI programs to focus on general information rather than on the specialised and disciplinary-specific knowledge more valued by universities.

4. Writing as the expression of convergent and/or divergent thinking

Thinking about thinking is of paramount importance in academic writing contexts, with one useful approach being to consider how the act of writing can incorporate both convergent and divergent thought processes. Razumnikova (2013) views convergent thinking as involving the search for a single correct answer, whereas divergent thinking concentrates “on producing a large number of appropriate and adequate alternative responses and often is associated with creativity which involves the generation of varied, original, or unusual ideas in response to an open-ended task” (p. 551). In other words, convergent thinking reins in creativity through the application of rational thought, implying a form of thinking that follows an expected path or route; not ‘rocking the boat’. In contrast, divergence takes thinking into risky and imaginative unknown territory and may be more concerned with connecting diverse elements rather than reaching consensus. While it is commonly believed that human creativity is associated with divergent thinking, it can also extend from a base of convergent thinking. For example, a creative product resulting from divergent thinking may have been first conceived of as a more standardised or mundane version of its innovative self.

With its focus on reaching one correct or logical answer, convergent thinking would appear to be more attuned to those fields of study that may value a single answer to a difficult problem. Conversely, divergent thinking, with its encouragement of critical thinking processes such as assessment of information, problem-solving and finding innovative solutions, collocates with the higher order tasks required by areas which prioritise independent research (Strongman, 2013). Zemits (2017) notes its special importance to Humanities students who need to “step outside the writing of experts and to reflect on what might be missing in a line of thinking” (p. 176). This openness to other viewpoints demands divergent thinking.

But how does all this apply to academic writing? Pennington (2014) sees these two thinking types – either irrational/chaotic (i.e. thinking divergently) or rational/ordered (i.e. convergent thinking) – as both necessary at different stages of any writing project, believing that writers with a ‘creative mindset’ need to be able to flexibly switch between them to effectively accomplish different stages of writing work. For example, initial brainstorming for ideas on which to write may involve chaotic thinking, whereas planning writing calls for the operation of an orderly mind; a difference Greetham (2008) describes as being between the writer as artist and the writer as editor or ‘craftsman’ [sic]. This division necessarily involves “a shift in focus from the creative activity of converting your ideas into language to a more self-conscious focus on the way you’ve used words, phrases and structures” (Greetham, p. 280). Many writing specialists would concur that effective academic writing requires both the creation of ideas (‘the artist’) and conversion of those ideas into acceptable form and/or expression (‘the editor’). While on a personal level we might be

drawn to one or the other, a seamless merging of both is a prerequisite for any piece of writing to truly fly.

5. AI intersections and affordances

The development of AI programs has the potential to illuminate the place of convergent and divergent thinking styles in academic writing. When I ask ChatGPT how these patterns of thinking might relate to academic writing, it begins by giving me a handy (but unsourced) definition and breakdown of convergent thinking:

A process that involves narrowing down options to find the best solution or answer to a specific problem or question. It's characterized by a linear and focused approach. In the context of academic writing, convergent thinking is important for: thesis development; organising and structuring [content]; critical analysis and; problem-solving. (OpenAI, 2023)

That is all well and good, but AI programs such as Chat GPT often tap into another, more insidious form of convergence, for ChatGPT reproduces information – often North American in origin and resulting from a mash up of academic and non-academic sources – packaging it all up using a determinedly convergent writer's voice. In this way, AI bypasses the messy irrationality of in-progress writing with the presentation of an easily digestible (but frequently trite) product to the consumer in a matter of seconds. Adding to the allure of this glossy package, the voice of authority through which this information is delivered makes it difficult to resist.

Regarding divergent thinking, ChatGPT recognises the messiness inherent in this alternate thinking style when it states:

Divergent thinking is a process of generating a wide range of ideas and possibilities without necessarily focusing on finding a single "correct" answer. It encourages creativity, flexibility, and exploring different perspectives. In academic writing, divergent thinking is relevant for: brainstorming and idea generation; developing original insights; innovation; addressing complex issues and; creativity in expression. (OpenAI, 2023)

Teaching writing deep inside the Academy, I find the final item on the list ('creativity in expression') particularly interesting and – truth be told – somewhat liberating. When I ask ChatGPT to explain it further, it comes up with a refreshing list of techniques including the use of 'colourful' introductions and memorable metaphors. From my own research, however, I note that these forms of creative expression are often strongly resisted by academic readers (Thurlow, 2021), and any writer seeking to introduce the balm of creativity into their academic work needs to tread carefully.

On balance, however, ChatGPT concedes that both styles of thinking are necessary in academic writing, sensibly asserting:

Both convergent and divergent thinking are valuable in different stages of the academic writing process. Convergent thinking provides the structure and focus needed to present a coherent argument, while divergent thinking adds creativity and depth to your ideas. Effective academic writing often involves a balance between these two thinking patterns, adapting their use based on the specific requirements of your topic, discipline, and writing goals. (OpenAI, 2023)

Interestingly, ChatGPT appears to recognise the vast difference between these two thinking styles and, when prompted, categorises itself into the convergent side of the equation:

The answers I provide are primarily the result of convergent thinking, rather than divergent thinking. This is because my responses are based on patterns and information present in the training data I've been exposed to. I analyze the context of the question, identify relevant patterns, and generate responses that align with the patterns and knowledge I've learned.

Divergent thinking involves generating a wide range of creative and unique ideas, which is a more human-like cognitive process. While I can sometimes offer creative examples or alternative viewpoints, my responses are more focused on providing accurate and relevant information based on existing patterns in the data ... The extent of creativity and innovation in the responses I provide might be limited compared to what a human writer with the capacity for divergent thinking could offer. (OpenAI, 2023)

This last point is significant. It highlights the inability (or unwillingness?) of AI to go beyond the data, to travel on unmarked paths that might well lead to the novel or original knowledge that is more valued by the Academy. It stays on the well-trodden path of what is already out there – tirelessly repackaging the efforts of others in a dogged but endless quest to satisfy its users. Anthropomorphising it, I can see AI as a plodding but determined student writer, not yet a flexible, highly professional writer, exceedingly keen to please its mistress or master and learn from its mistakes, but with a somewhat over-confident attitude.

6. Implications for ALL practice

The conversation between a student and an ALL Adviser (myself) which opened this piece showcased two very different reactions to the potential of AI and highlighted emerging tensions at universities as they respond to this new technology. As you will recall, the graduate student accentuated the positive – particularly the way in which AI might enable him to focus on his research without the pain of ‘writing up’ his doctorate. From my experience with student writers, this attitude might be one that is reasonably common, characterised by an enthusiastic embrace of AI technology with a lack of knowledge about (or a negation of) the enduring link between thinking and writing. Other students, however, are more cautious, reflecting their instructors’ concerns and institutional alarm regarding academic dishonesty and the lack of transparency about source material, among other issues. My own reactions of cautious distrust may also be typical of writing practitioners working at universities, coupled with fretful feelings as we contemplate losing our roles as trusted guides to the occluded world of academic writing by generative AI tools.

But, as ALL advisers and teachers, how might we respond to our AI-curious students – either those displaying the firm opinions of my friend at the Orientation Student Fair or more hesitant, or indeed, silent others? How might we, as the professionals in part responsible for the writing development of post-entry students in Australian higher education, view the emergence of the brave new world of AI and the shiny promise it brings to student writers? These questions deserve our time as we grapple with the seismic changes to our roles created by the on-rush of generative AI.

To begin this discussion, let us recap the two dichotomies nestling at the heart of this piece. The first dichotomy investigated how writing can record the writers’ already known thoughts, *or* extend them into creative territory. Intimately connected to this first dichotomy, the second dichotomy examined the place of convergent and divergent thought patterns in producing effective academic writing. During this foggy dawn of the era of AI-generated and supported writing, ALL Advisers need to balance several, sometimes conflicting, responsibilities regarding these intertwined areas.

In sum, at the time of writing (August 2023), in the pre-drafting stages of writing, AI (exemplified by ChatGPT) seems able to provide potentially useful input in relation to:

1. Generating ideas for a written piece on a reasonably clear-cut topic
2. Outlining these ideas in a (usually) logical sequence
3. Finding references to support ideas (although, as stated previously, some of these may prove to be spurious, overly general or indeed, fake)
4. Providing a paraphrase or summary of difficult reading material to aid understanding
5. Organising notes from reading including identifying major themes on which to base later writing.

Rowland (2023) provides more useful detail on the use of generative AI in these preliminary phases. I highlight them as – apart from #3 – they tend to involve the core ‘thinking work’ where a writer’s creativity would be expected to emerge. This is important for our first dichotomy and would appear to place the student writer who accepts AI’s suggestions at the recording end of the continuum of how thinking and writing intersect. However, the question of whether this ‘kick-start’ in providing, sequencing and supporting ideas may aid later expressions of creativity and/or originality in subsequent drafts or, rather, to continue to lock it down, remains open for debate and indeed, forms part of an evolving and much larger discussion on AI and creativity.

To some extent, the second dichotomy extends the first, with the pull and push between convergence and divergence in academic writing contexts lying at its core. This piece has explored how a written product may result from both irrational, divergent forces and more rational, convergent approaches. With its programmed preference for a convergent approach, AI programs such as ChatGPT steer the user to ‘safe’ information on a topic – already published material that is accessible to its web crawlers. As such, it does not know what it does not know and cannot suggest any novel or innovative idea that is not already out there, which may pose limitations on its use by those exploring new research-based worlds, such as doctoral candidates.

Both dichotomies are intimately connected to our work as ALL Advisers, for ultimately, our work as third-space professionals in the neo-liberal university (Whitchurch, 2008) positions us as both convergent enforcers of the disciplinary and institutional systems that employ us and as dissenters encouraging divergence and other types of ‘freeing up’ in thinking and writing. This can be a difficult balancing act to get right.

Let us explore our role as enforcers first. This function sees us as upholders of the often obscure ‘rules’ of academic writing to those learning the craft. We routinely find ourselves in this space of surveillance as we review student writing, frequently in the frantic days (or even hours) before a high-stakes assignment is due. Working with students in this fraught environment, we help to ensure that their work meets the specific requirements demanded by their lecturers and disciplines. Although I do not frame this service as necessarily constraining thinking and the outcomes of thinking (such as written creativity and/or an original product), often the timing of this eleventh hour ‘checking’ work serves to firmly place it – and us – at the recording or ‘locking down’ end of how academic writing occurs.

The other potential role of the ALL Adviser is one of liberator, helping to open writers up to different ideas, approaches and techniques in their writing and – in some scenarios – freeing them in their academic work. This dimension of our role coalesces in the one-on-one writing tutorial, particularly when a student brings in an early draft of their work. In these encounters, students often present the with a task rubric which requires them to corral their bright but unwieldy ideas into an ill-fitting ‘straitjacket’ template or genre. In direct contrast to these demands for uniformity are criteria for assessment which commonly prioritise the writer’s own ideas/content at the expense of the marks allocated to written expression and other ‘mechanical’ criteria such as referencing or formatting. To me, this suggests that writers may be more creative or freer with their ideas if they are able to fit them within the parameters of the task at hand. Therefore, when advising these writers, I prioritise strategies to give them the self-confidence to discover and emphasise their own ideas and often leave detailed discussion of how to ‘write it up’ for a follow-up session.

The key to success in this type of writing tutorial is often the discovery and amplification of writer's voice. While writer's voice remains a contested term in the literature of writing pedagogy (see, for example, Tardy, 2012), the task of persuading the reader to believe a line of reasoning and then guide them to a convincing conclusion is almost impossible without one. Due to its significance, I spend much time in individual tutorials helping students find and grow their own voice while maintaining the courage to use it throughout their work. I persevere with this work because I see that tapping into this inherently divergent voice may enable the writer to produce a novel, creative and/or original piece of work that satisfies both their creative urge *and* helps them receive a pleasing grade.

Writer's voice has the potential to become a hot topic again as AI infiltrates the spaces where writing is born and shaped. At the time of writing (August 2023), programs such as ChatGPT can present innumerable ideas on a mind-boggling range of subjects. Having trawled the web and amalgamated all that is known about a topic, these ideas are then regurgitated through an authoritative 'bot' voice stating how the user should approach their task and urging them to follow the formulaic and determinedly rhetorical moves it lays out. The way it outlines this information may indeed be one way to approach a topic, but there are surely others. I suspect many students, however, will find the lure of information presented in such a solid and seemingly legitimate order by this convergent AI voice extremely hard to resist.

Focusing on the writer's voice/s adopted by AI programs such as ChatGPT soon conjures up other issues. A major reservation for me in relation to the use of AI tools to support academic writing is that the strength of claim advanced by this self-assured voice can be rather strong and, at times, inappropriate for certain disciplines. As ALL Advisers, we know that many academic tasks need to be written in a formal, objective writer's voice, but this is not a blanket rule. The role and value of both the subjective and objective writer's voice shifts dramatically across disciplines and disciplinary discourses. Crucially, an overly objective voice may be off-putting to readers in some disciplines due to its contrived and inscrutable nature. Indeed, from a reader's perspective, the most memorable – and often the most highly cited works – may exhibit a warm, guiding and even subjective voice, not the frozen tundra of 'formal' objectivity. However, achieving a suitably tentative, disciplinary-appropriate yet accessible voice is something that, currently at least, seems to largely escape ChatGPT. Without some active prompting to tone down its over-confident stance, students who need to write using the tentative approaches preferred by many Humanities and Social Sciences-based disciplinary traditions may find this assertive stance disconcerting. As such, this an area where the nuanced and developmentally focused advice given by human ALL Advisers to writers on when to withhold and when to reveal their voice appears to have a decided advantage over AI.

The definitive and 'take no prisoners' style in which AI often delivers information presents other challenges to our ALL practice. Taking the example of ChatGPT once again, I can confirm its determination to avoid saying, 'no, I don't know the answer to your question', at all costs. Whether this alarming inability to admit ignorance is the result of programming flaws or reflects a programmed 'wish' to maintain its knowledgeable 'face' and satisfy users at all costs, many AI programs have become well-known for creating fake information based on non-existent sources. With this stance, AI can be an embarrassingly poor model for aspiring academic writers to follow. As ALL Advisers, we can only hope this aspect of AI is thoroughly ironed out in the coming months/years, but in the meantime, we need to be on high alert to these issues.

7. Conclusion: Learning writing by breaking the rules of writing

Each time a writer begins their work, there are two writers inside of them. One is the writer who has something to say; the creator who seeks to make the page sing with their novel ideas. The other is the constrained writer, held back by their topic, genre, self-confidence and a host of other intrinsic and extrinsic restraints. ALL Advisers see these two writers every time a student comes

to us seeking help with their work. And while we may not see which writer ultimately prevails in their submitted product, we are all witnesses to the struggle that ensues as these duelling personas battle it out either on the main stage of the page/screen or, more often, in the wings.

AI will undoubtedly change the outcome of the adversarial scenario depicted above but in what ways is still unclear. As we have seen, AI programs such as ChatGPT offer us an inexhaustible supply of ideas for writing and willingness to produce models of work for no or minimal cost to users. In fact, one of AI's core strengths is its ability to generate multiple ideas for a piece of in-progress writing, outlining these ideas in a seemingly logical order. These tempting offerings – sourced from every nook and cranny of the web – present the student writer with an impressive variety of ways to approach their topic and the promise of capturing a stellar mark for their work. But while things may look rosy on the surface, delving a little deeper sees significant cracks creep into this always ready, always eager to provide an answer 'hero' narrative of AI. The uncertain provenance and frequently formulaic nature of the ideas that it conjures forth are often compounded by a lack of clarity regarding the reasons and rationale behind its choices in composing its synthesised texts. Clearly, this approach is incompatible with what is expected in the Academy where any (human) academic writer needs to be transparent regarding the what, where (from) and why (chosen) on which their work is based. Thus, while AI can be a useful tool for the generation of ideas, there are clear limits to its ability to mimic and/or extend human creativity.

Finally, as ALL advisers and writing specialists, we know that the most effective and memorable writers are skilled at bending or even breaking the 'rules' of writing. As Sharples (1998) astutely observes, "like most rules of everyday living, they are most useful when learned and then selectively ignored" (p. 5). This paradox characterises any act of writing and is keenly felt in academic writing contexts where student writers are occasionally rewarded with high grades for bending these rules in a disciplinary-acceptable manner. Yet this very human capacity for both coming up with novel ideas for writing and exploring them using an engaging and inspiring writer's voice is not something that AI programs such as ChatGPT appear to be expert at doing ... not yet anyway.

As ALL Advisers, I believe that we have all learnt to exist – albeit a little uncomfortably at times – with the paradoxes presented by writing, thinking and creativity that have been surveyed in this paper. AI, as the 'new kid in town', has yet to learn the nuances that we have accrued in our everyday practice. But, as the last year has aptly demonstrated, it is a quick learner.

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