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Negative effects of Generative AI on researchers: Publishing addiction, Dunning-Kruger effect and skill erosion

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Abstract

In this opinion piece, I strive to examine the negative effects of generative AI on researchers, highlighting three main issues: publishing addiction, the Dunning-Kruger effect, and skill erosion. First, generative AI may lead to publishing addiction. In neoliberal universities, merit is often based on the quantity of publications. Generative AI speeds up the writing and publishing process, causing researchers to focus on producing more work quickly rather than on quality. This shift may harm their well-being and relationships. Second, generative AI may worsen the Dunning-Kruger effect among researchers. Researchers might believe they possess expertise by merely engaging with AI-generated content. This overconfidence can mask their knowledge gaps, leading to a failure to recognize their own incompetence. Consequently, it may hinder learning and growth, as individuals might not seek further education or feedback. Lastly, reliance on generative AI may lead to skill erosion. As generative AI handles brainstorming, outlining, editing, and other scholarly activities, researchers might weaken their ability to develop rigorous research skills. I stress the importance of responsible AI use and ethical standards. Much like craftsmanship, true research requires careful effort and originality—qualities that AI cannot fully replicate. I also argue that efficiency in research writing is not the same as effectiveness. Just as King Midas learned to value life's true treasures after his seemingly blessed golden touch was washed away, researchers should embrace intellectual humility and strive for excellence in their work.

Prologue: King Midas and the AI dilemma

Once upon a time, a new entity, known as generative AI, subtly wove itself into the world of research. This marvel has the ability to conjure content, dissect data, and draft entire papers in seconds (Giray, 2023b). Initially, it seemed like a boon—a daemon lightening the scholars' load. Yet, beneath its sleek exterior and promises of efficiency lies a labyrinth of *hidden threats*.

In recent years, generative AI has become a disruptive force (Rudolph et al., 2024) in various fields. In fact, just talking about it "often engenders strong emotions, ranging from doomsday predictions to unbridled euphoria" (Rudolph et al., 2023, p. 342). This really has become the talk of the town because, for the first time in history, it's not just humans who have the prowess to navigate language. It's now also AI. Harari (2023) said that AI has already hacked the operating system of human civilization. That operating system is *language*.

For me and other researchers, it really has disrupted *how things work* and *how we do things* in the arena of research. One example is that we've found a powerful ally in doing the arduous process of research (Giray et al., 2024a). It's like Sisyphus now has a *soulless* but helpful golem in his cyclical venture of rolling a massive boulder up a hill. Better than having nothing at all. As an early-career researcher passionate about inquiring into the world around me, I spent a lot of time writing, digging through books and analyzing data. The process was indeed *painfully* slow but rewarding. Thanks to generative AI, researchers like me can accomplish in weeks what used to take months. It's no surprise that it has caused *mania* within higher educational institutions (HEIs) (Rudolph et al., 2024). While this seems good, it also has its bad and ugly sides (Ifelebuegu et al., 2023).

This whole generative AI story reminds me of the myth of King Midas (Auerbach, 2016): Midas was a king who loved gold so much that he wished everything he touched would turn into it. At first, this power seemed like a dream come true. He could turn anything into precious gold just by touching it. However, when he touched his food, it turned to gold and became inedible. When he embraced his daughter, she turned into a golden statue. His desire for easy riches eventually ruined the things he valued most.

The unintended consequences of generative AI are profound. Merton (1936) introduced the concept of *the law of unintended consequences*—which means that actions may have effects that were not foreseen or intended. These consequences are often subtle and not immediately apparent, much like how Midas did not foresee the tragic consequences of his golden touch. While generative AI offers incredible benefits, it also presents negative consequences, including fostering publishing addiction, overconfidence without corresponding skill or knowledge, and deteriorating writing skills among researchers. This paper delves into these pressing issues; it examines how the widespread use of generative AI may be reshaping the landscape of academic writing and research in ways that are not entirely positive.

Figure 1. AI-generated image. [Prompt: Create an image of a researcher surrounded by a messy pile of papers. The bossy AI robot controls him like a puppet on strings. Despite the mess, the researcher looks overly confident. No words. Comics style.]

Generative AI exacerbates publishing addiction

Many HEIs operate under a neoliberalist philosophy, where the intensification of workload has become the norm. This ideology emphasizes work intensification (i.e., increasing workloads and expectations, leading to longer hours and higher stress, without or barely with additional resources or compensation) and responsibilization (i.e., making staff accountable for their own success and productivity, often without adequate support) at both individual and organizational levels (Andrew, 2023). On an individual level, there is a strong emphasis on producing a high number of publications in high-impact journals indexed in Scopus and Web of Science. At the organizational level, this neoliberal approach fosters a culture of high-pressure metrification, where quantitative metrics like publication counts, citation indices, and impact factors become primary indicators of academic success and institutional prestige (Owan et al., 2024).

Hence, many academics are into publishing. The more papers they publish, the more they are productive, and the more they are depicted as *excellent*. But, publishing indeed is challenging and time-consuming, often taking from a few months to years to get published in quality journals. Academics take pride in their work because they have endured the arduous process, and they have overcome rigorous peer reviews, particularly from the often critical *Reviewer 2* (Peterson, 2020), and made extensive edits based on feedback. With generative AI, researchers now have convenient research assistants. This makes the process more efficient in terms of producing more papers, which is an indicator of *excellence* in many universities (Andrew, 2024). Generative AI is certainly useful for researchers, though it

may lead them to develop publishing addiction or worsen it if they already have one. This addiction involves an obsessive need to publish academic papers, often at the cost of quality and personal well-being. Like other addictions, it includes denial and an inability to stop (Finlay, 2021). It can harm the individual and their family and lead to the loss of social activities. People may also develop habits like constantly checking citations and h-index scores on Google Scholar or other scholarly databases (Finlay, 2021).

By browsing papers on ResearchGate and Academia, I noticed many academics uploading papers that are often barely edited outputs from AI tools. Some academics put them in the pre-print category and submit them to predatory journals that accept almost anything. For example, I saw one American researcher who published an insane number of papers in sub-par journals just to have his name published. He published more than 150 papers in total since 2023, the year that ChatGPT became well-known to the public. He used ChatGPT and often titled his papers with phrases like "a ChatGPT study," "A chat with ChatGPT," or "a ChatGPT reply." In his papers, he would self-cite extensively; in one paper, he self-cited 49 times. 'Twas a cunning shortcut in a neoliberal, metrified system in higher education.

This trend of publishing barely edited AI-generated papers in predatory journals deeply concerns me. It diminishes the quality of academic work and distorts the metrics used to evaluate a researcher's impact. It's unfair, confusing, and even infuriating. Instead of genuine research, it wastes time and resources. Voila, people can't trust academic papers as much because of this.

Since AI has made everything faster, it has become a blessing for many academics coping with the "publish or perish" phenomenon (Elías, 2019). The pressure to publish may drive researchers to use unethical AI shortcuts. The hyper-competitive culture in academia compels researchers to publish in journals, often in English (Tudy, 2023), which poses challenges for non-native speakers (Di Bitetti & Ferreras, 2017). This mantra has real consequences; failure to publish can result in leaving an institution.

A concrete example is an English literature instructor I know from a private university who experienced this predicament during the chaotic COVID-19 pandemic period. Because the university was reducing its workforce to cut costs due to declining profits, it laid off employees who were not contributing much to the improvement of its research reputation. According to his students, he's an excellent instructor. However, because he had an insufficient number of publications, the university still dismissed him. Fortunately, he was later employed by a high school.

Some researchers willingly submit to and publish in predatory journals (Yeo-Teh & Tang, 2021) for various reasons, including job security and securing funding. Others engage in what can be termed as *intellectual masturbation*—an academic pursuit that is self-indulgent, overly theoretical, or disconnected from practical application or real-world impact. This behavior involves publishing papers primarily to impress peers rather than making meaningful contributions to knowledge or solving practical problems. In the context of publishing addiction, intellectual masturbation may occur when researchers prioritize the quantity of publications over quality or engage in research solely to enhance their CVs or reputations. One major problem is that since they want the research process to be so easy and instant, they publish haphazardly which results in papers with misinformation or fake references generated by AI (Giray, 2023c).

I don't want to be a hypocrite. I admit I've become addicted to publishing. I believe this can improve my credibility and job prospects at higher-paying universities. But, this addiction is attributed partly to generative AI. It's a handy tool that helps me publish more papers and increase my h-index. Now, I see that my academic goals have also grown. From being satisfied with a Master's degree, I now aspire to pursue a PhD. Not just a local one, but an international one. In the academic market, I found that the most palatable candidates are those with international degrees. And I think using generative AI for research tasks like editing, analysis, proofreading, and translation could make this goal more possible. Generative AI is incredibly helpful for non-native English-speaking researchers like myself.

My strategy is to pursue a PhD by publication, a specialized route for individuals who have published extensively on a single topic. This approach is recognized in some countries like the UK and Australia. This is not much known in my country, the Philippines. Actually, I just don't want to follow the usual path of pursuing a doctorate, which supposedly takes three years, but in my country, because of bureaucracy, it often takes five years on average in public settings, even if one takes the maximum number of units every semester. I also don't want to deal with nonchalant, power-tripping, and/or toxic supervisors. In fact, toxic supervision practices (e.g., narcissistic and exploitative behaviors) are a major factor causing PhD students to discontinue their programs, which leads to mental health challenges and program delays (Okere, 2024).

The Philippine graduate school system is drowning in a sea of reporting demands that overshadow the essence of teaching. Professors typically delegate the reporting tasks to students, dividing them into groups to cover different segments of the syllabus. In each session, a group reports on their assigned segment while the professor passively sits at the back, occasionally inserting comments—sometimes unrelated, like organizational gossip or personal anecdotes. This tactic of offloading reporting responsibilities onto students has become an oppressive mechanism. This reduces teaching to a mere formality.

Aside from that, graduate students often find themselves cramming their theses into one year because that's how the curriculum is structured, which is ironic given that graduate studies should be the most focused and prioritized phase of their education. During my MA, my colleague was asked to complete a thesis he didn't want to do, a complete deviation from his original proposal. He was told to do this because it would aid in the university's accreditation process, where his thesis adviser is involved. This power play left him feeling compelled to comply just to graduate.

The misunderstanding of vertically aligned degrees leads many university administrators to require students to pursue programs they don't want. For example, my colleague from a university specializing in teacher education was directed to MA in Linguistics instead of her preferred MA in Special Education because it was deemed more aligned with her Bachelor's degree. This policy restricts academic freedom, presenting students with a false choice and limiting opportunities for interdisciplinary and multipotential growth (Giray, 2023a). All the narratives show how Philippine graduate schools contribute to the dehumanization and alienation of students, transforming institutions into undemocratic, tyrannical environments—a troubling trend indeed. Coming from an urban poor community— I live near the railroad, where teenage pregnancy and under-the-table crimes are common—I face financial challenges and cannot afford the high tuition fees for a doctorate, more particularly at a top-tier university. Hence, my strategy is to secure a scholarship from the Department of Science and Technology. Although my research interests were initially in education and teaching, I now aim to align my research with their focus, which is on science and technology. Now, I focus on the intersection of generative AI and academic writing. I diligently write papers on this topic almost every day, filling notebooks with ideas and managing numerous Zotero attachments. My goal is to have ten published papers on this topic. I believe that generative AI can help alleviate my challenges with organization, language, and time. However, I have noticed recently that this dedication is somewhat evolving into a publishing addiction—causing me to often neglect physical exercise and even familial/social relationships.

Generative AI has made academic publishing faster and easier, but it may lead to publishing addiction, where researchers focus on quantity over quality. This addiction may harm personal well-being and degrade the integrity of academic work. Because of the temptation that generative AI brings, researchers may submit poorly edited AI-generated papers to predatory journals. Now, they're doing these shortcuts to research writing so that they retain their job. When people's jobs or lives are unstable and uncertain (precarious), they are less likely to do what is right because they fear losing what little security they have (Giroux, 2014). This wastes resources and erodes trust in scholarly publications. Indeed, balancing the use of AI with ethical practices is vital to maintaining the value of academic research.

Generative AI reinforces the Dunning-Kruger effect

While generative AI certainly helps students and faculty members to write (Giray et al., 2024b), it doesn't mean they have mastered the topic or become experts. Large Language Models (LLMs) can produce long, coherent essays with just one prompt. Students and faculty members may read it and believe they understand the material comprehensively and can make expert comments. Consequently, this results in overconfidence in both the AI and their own abilities.

This phenomenon is called the Dunning-Kruger Effect, a cognitive bias where people with low ability or knowledge in a specific area overestimate their competence (Kruger & Dunning, 1999). They don't realize their lack of skill and mistakenly think they are more knowledgeable than they really are.

Scrolling through Facebook and Instagram, I'm constantly seeing ads from self-proclaimed AI experts. These ads often promise to save hours each week if one buys their course. These self-proclaimed AI experts on social media illustrate the Dunning-Kruger effect. They confidently claim expertise in AI but often lack deep knowledge. This overconfidence leads them to offer courses and certifications that may not provide real value. One even announced that his courses are "super useful for everyone" and that they shall "help you achieve real results and change your life today!" This highlights the overestimation of their abilities in a complex field like AI.

I recall an example. There's Mike, an environmental engineering major. I asked the class to discuss the concept of stress and its impact on them personally, with a one-week deadline. Mike submitted two papers instead of one, insisting I review both. Upon reading them, I suspected they were AI-generated. The task required personal reflection on digital stress, but his submissions had none. They were generic, robotic, and devoid of personal experience. Despite his previous struggles with essay writing, he was overconfident in his AI-generated work.

Another example involves a civil engineering student-researcher who relied heavily on AI for her paper. The paper was riddled with errors, vague methodologies, bland discussions, and poor citations. Despite this, she was proud of her work and believed it was award-worthy. Her overconfidence stemmed from her reliance on AI and how thick her paper is, not her understanding of the subject. Terms like "cutting-edge," "comprehensive" and "transformative" were used unnecessarily. This overconfidence is a growing problem among students. Some students believe they are already proficient just because they have submitted papers that look impressive, yet mainly AI-generated and vacuous. They think it's a magical tool that can bypass the hurdles of writing and automatically earn them an A+ as if they'd wished it from a shooting star.

Early career researchers often fall into the trap of believing they are superior because they use generative AI tools without understanding their limitations and biases. These tools can hallucinate and present inaccurate information. One IT instructor claimed he could produce outstanding research in one sitting with AI, ignoring the complexities of data collection, analysis, literature review, and intertextuality. This is misguided and ironic, especially since he should be more knowledgeable about AI's limitations, given his educational background

Let's go back to the American academic I was discussing previously, whose addiction to publishing has become more pronounced because of generative AI. I reckon he suffers from the Dunning-Kruger effect. This leads me to conclude that these two issues might be linked. Despite his specialization in accounting, he has used ChatGPT to publish papers on a wide range of unrelated topics, including Chinese herbs, gender discrimination, cosmology, education, Tai Chi,

Russian annexation, gynaecology, and even harvesting body parts from death row inmates.

I've realized I might be falling prey to the Dunning-Kruger effect myself. The allure of generative AI has led me to write papers outside my specialization. Recently, I delved into fields like mental health and addiction with the help of ChatGPT. This has been presumptuous of me, but I'm trying to be mindful of it now. Initially, I felt confident in my work until receiving feedback from experts in those fields. Their significant critiques have made me aware of my limitations. The use of ChatGPT to generate content on these diverse and unrelated subjects accentuates a huge disconnect between researchers' actual expertise and their perceived competence. The problem here is that they overestimate the understanding of these complex and varied subjects due to the seemingly authoritative outputs generated by generative AI.

Generative AI makes it easy for people to think they're experts when they're not. But they don't think of that. They think they are *qualified* and *excellent*. They have just sunk in the Dunning-Kruger quagmire. The deeper they sink into this circumstance, the more the risk becoming a fool, lost in the depths, destined to drown in their own overconfidence and ignorance. They can only escape this mucky quagmire when they finally realize they're stuck in it. When they pause their relentless movement/panicking (taking a moment to step back and reflect inwardly) and reach out for help (admitting their ignorance, asking experts), they might find a way out of the quagmire that has ensnared them.

Generative AI leads to skill erosion

In January 2023, my colleague introduced me to ChatGPT, and I was blown away by how fast it could spit out answers. It felt not only magical but charmingly infernal! I quickly realized that if I didn't start using it, I'd be missing out on some serious opportunities and the potential to improve my life for real. My thinking was pretty straightforward: *more papers = better job prospects*. Then, *better job prospects → fatter paycheck → better life*. I know life is not that simple, but I was all about maximizing my chances.

Pre-ChatGPT era, writing a 3000-word commentary would take me a good two months. One, because I'm always busy with work and other affairs, and two, because it involves a ton of investigation, talking to people, and endless editing and revising. For simple research papers, it was a whole six-month ordeal, and that's with a team of four collaborators hustling alongside me. Our brains were fried, and frustrations were high—some even threw in the towel at some moment in time. But, after all that, we'd celebrate by gaming or hitting up a mall food court. In my defense, we're young, ambitious, never-funded researchers. Thanks to ChatGPT and its cousins, we've slashed that time down to an average of just three months. And that's a whopping 200% boost in productivity!

Using AI to help with writing papers and research was a disruptive force. 'Disruptive' could mean for better or worse. It made me way more efficient. It gave me a gift of time (Tregoning, 2023). I tripled my output and started racking up citations and publications in journals indexed by Scopus. But amidst all this newfound efficiency—I started wondering if I was actually becoming a better academic writer and researcher.

While generative AI tools are often praised for enhancing writing among non-native English-speaking researchers (Hwang et al., 2023), I've been thinking about my writing, and I'm starting to feel like something's off. I've been cranking out papers so quickly that I might be neglecting to improve my writing and research skills. It feels like they might be getting rusty.

Before generative AI was a thing, I'd spend a huge amount of time brainstorming, reading, and planning my writing. Drafting took a while, and I'd spend over a month proofreading and continually revising. Basic word processing and grammar tools were the primary tools I used. It was tough, but I knew it was worth the effort. With generative AI helping me, I can finish the same commentary paper in about two weeks or even a week if I'm not busy with other tasks. Sure, it saves a ton of time, but I'm skipping some important steps. Just like any skill, if you don't use it, you lose it (Bushuyev et al., 2024), and I think that's what's happening to me.

This reminds me of the concept of *desirable difficulties*, which I think I'm missing out on because of the automation provided by AI. Desirable difficulties are challenging and effortful tasks that lead to better long-term retention and understanding (Brown et al., 2014). Brainstorming is hard. Editing is not easy. Revising is backbreaking. But they all help me understand and appreciate the process of writing.

Right now, my writing process is all about writing a bunch of ideas down, even if it's messy. It's the idea of *shitty first drafts* (Lamott, 1995), which is a preliminary and important thing to do in any writing process. I just let the grammar go haywire, some sentences half-done, like a typhoon hit the page. The main thing is I'm just letting loose, spilling out all the stuff from my brain. Then, with AI, I transcribe it using Office Dictation in Microsoft Word, which writes what I say automatically. Then, I ask ChatGPT to fix it up. After some edits, voila, I now have a half-baked paper! Insufficiently cooked—but, at least, I've got one. The writing process has become more bearable than ever before.

Many researchers are seeing their writing and research skills decline because they rely heavily on AI. This dependence has led to concerns about compromised scholarly integrity, with instances of AI-generated content containing AI hallucinations, fake references, and blatant copying (Giray et al., 2024a). This undermines their ability to critically review literature and write research papers effectively.

For instance, a group of Chinese researchers in materials engineering used ChatGPT to write their paper's introduction, starting with the phrase "Certainly, here is a possible introduction for your topic" (Zhang et al., 2024). In another case involving Israeli medical researchers, in their paper's discussion, one can see an AI answer, "I'm very sorry, but I don't have access to real-time information or patient-

specific data, as I am an AI language model" (Bader et al., 2024).

How did editors and reviewers miss these issues? These problems spread across social media. If netizens hadn't exposed them, they might still be overlooked. Netizens played a crucial role in bringing these issues to light, leading to retractions. These practices undermine academic rigor and erode critical thinking and scholarly writing skills among researchers. As AI tools proliferate, there's mounting concern that these shortcuts could degrade the overall quality and reliability of academic research.

This is reminiscent of the tragedy of Air France Flight 447 in 2009, which serves as a poignant reminder of the perils of *excessive* reliance on automation (Oliver et al., 2017). When the autopilot failed due to icy airspeed sensors, the pilots had trouble flying manually in bad weather. Similarly, if we, researchers, lean too heavily on generative AI for editing, writing, and analysis and whatsoever, the risk of an academic crash looms large—jeopardizing the integrity essential for scholarly progress.

Generative AI's ability to create content may lead to intellectual laziness (Nongxa, 2020). Researchers may not put in the necessary rigorous mental work or be unwilling to engage in deep thinking or critical analysis. They may rely too much on generative AI, losing touch with the skills of their craft. The instant gratification provided by generative AI can be very tempting. Once pursued, they may be gratified. But when everything's instant, they can have negative effects.

This reminds me of instant noodles and canned foods. These conveniences may lead to a lack of appreciation for the process and effort required in traditional cooking or preparation. These instant options are often less nutritious and high in preservatives. Likewise, in intellectual pursuits, relying on instant answers or solutions can result in a shallow understanding and a diminished capacity for patience and critical thinking. In fact, this relates to what cognitive science says. If people give in to this instant gratification, it negatively affects their patience and self-control, leading to long-term consequences (Magen & Gross, 2007).

Just as neurons weaken from disuse (Brown et al., 2014), relying too much on generative AI for writing and research can erode our skills. Depending solely on automation can stagnate our skills, reducing the depth and quality of our work over time. We don't want, of course, to experience *skill atrophy*— when we see ourselves declining in our abilities or proficiency because we lack practice or use.

Therefore, sometimes, it's necessary to ask ChatGPT to get off our lawn (Jenkins, 2023) so that we can reflect and grow as researchers. In a model I'm currently crafting to help multilingual learners integrate generative AI in cheating-free L2 writing, there are certain stages in which AI must not be used so that they can develop their own critical thinking skills and writing abilities. At the same time, we, researchers, must focus on developing our skills and recognize that while generative AI may enhance efficiency, it should not replace our effectiveness in the core skills of thinking, writing, and researching.

Conclusion

To recapitulate, here is a summary of the negative effects of generative AI on researchers. It highlights three key areas of concern: the exacerbation of publishing addiction, the reinforcement of the Dunning-Kruger effect, and the erosion of skills.

Table 1. Negative effects of Generative AI among researchers.

Negative Effects	Key points
Generative AI exacerbates publishing addiction	• The ease of generating content with generative AI may encourage a focus on producing a high volume of publications rather than prioritizing quality. This shift in focus may lead to an increase in submissions to journals without adequate peer review, potentially undermining the integrity of scholarly work. • Generative AI tools may facilitate unethical self-citation practices, as researchers attempt to boost their metrics, such as h-index, by generating content that cites their previous work. This practice can distort the perceived impact of their work and skew the academic record. • The rush to publish quickly, made easier by generative AI, can result in the dissemination of unverified or incomplete information, which can mislead other researchers and the public.
Generative AI reinforces the Dunning-Kruger effect	• Generative AI may give individuals a false sense of expertise, as they may use sophisticated-sounding content without fully understanding the underlying concepts. This can lead to overconfidence in their knowledge and abilities. • Generative AI may lead students and researchers to overestimate their abilities, as they may rely heavily on AI-generated content without critically engaging with the material. This reliance can hinder the development of necessary skills to evaluate or challenge the information. • Students and academics may fail to recognize their own incompetence, exacerbated by generative AI, that masks the gaps in their knowledge. This can hinder genuine learning and growth, as individuals may not seek further education or feedback.
Generative AI leads to skill erosion	• Over-reliance on generative AI-generated outputs may result in a lack of critical thinking and analytical skills, as individuals might accept the generated content without scrutinizing its validity or accuracy. This could lead to the spread of misinformation and poorly reasoned arguments. • By bypassing traditional writing processes, such as brainstorming, outlining, and editing because of generative AI, students and academics may miss opportunities for skill development and personal growth in writing and research. These processes are crucial for honing one's ability to communicate complex ideas clearly and effectively. • The erosion of skills due to generative AI can have long-term consequences, particularly for students and early-career researchers, who may become dependent on AI tools and less capable of producing independent, high-quality work. This dependence may limit their career prospects and ability to contribute meaningfully to their fields.

As summarized in Table 1, Generative AI has some serious downsides for researchers that we need to address. First, we've got to rethink our publication standards to focus more on quality than just pumping out a lot of content. AI makes it easy to churn out papers, but this can flood academia with low-quality work, contributing to *digital garbage*. We should tighten up peer reviews, set stricter standards, and create guidelines to avoid unethical practices and the rush to publish unverified research. Regular checks can help make sure only the best work gets through.

Secondly, we need to be careful with AI tools and not just treat them as a quick fix for everything. Generative AI could make people overconfident and give a false sense of expertise if they're not using it wisely. Researchers and academics need to be trained on how to evaluate AI-generated content and understand its limits. Adding AI literacy to Master's and PhD programs and offering workshops can help build critical thinking skills and prevent the Dunning-Kruger effect.

Finally, even with AI making things easier, we can't let essential research skills slide. Over-relying on AI could dull our critical thinking and writing abilities. There is a higher

need to keep emphasizing traditional research skills like brainstorming, outlining, and editing. Academic tasks should be designed to make students engage with these skills actively, so they're prepared to do great work even if AI isn't around.

Epilogue: The researcher as a craftsperson

In this paper, I have highlighted the negative effects of Generative AI. While it certainly boosts productivity, the use of generative AI may lead to a focus on quick publications over deep, original insights, resulting in publishing addiction. It may also cause researchers to overestimate their skills (the Dunning-Kruger effect) and may erode their writing abilities. I can compare a true researcher to a skilled craftsperson who meticulously carves intricate designs into wood, metal, or stone. Each stroke of the chisel represents careful thought and vision. This craftsperson's work reflects years of honing their skills, developing techniques, and creating original masterpieces that stand out. In contrast, a machine programmed to replicate these designs quickly churns copies with mechanical efficiency. While it can mimic patterns and shapes, it lacks the human touch—the ability to innovate, adapt, and imbue each piece with meaning and creativity. Similarly, researchers who rely on generative AI for research writing may produce outputs efficiently, but they risk missing the nuanced perspectives and innovative approaches that define true scholarly work.

After being heartbroken, Midas was pitied by the god Dionysus, who told him to wash in the river Pactolus. He followed the instructions, and the golden touch was washed away. Then, he renounced his riches and became a wiser, humbler man. Just as King Midas learned to value life's true treasures, researchers must recognize and preserve the true value of their intellectual endeavors by practicing intellectual humility and striving for excellence in all their tasks.

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