Reskilling Me Softly: Perceived Changes in Students' Skilling When Using GenAI in Academic Research Projects

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Abstract

The increasing use of Generative Artificial Intelligence (GenAI) in education for academic research projects is reshaping how we acquire information and generate knowledge. Generative AI is defined as computational techniques generating content, such as text from training data, which drives significant skill changes. This raises the question of how GenAI prompts reskilling, involving both deskilling (reduced skill development) and upskilling (acquisition of new skills). The balance between these processes is crucial, as overreliance on GenAI in academic research projects could lead to a performance gap due to, for instance, diminished critical thinking. Semi-structured interviews with students using GenAI for their academic research projects provide insights into shifts in skill requirements and the implications for future academic competence levels. The paper outlines a potential skill gap and concludes that individuals' motivational factors impact reskilling.

Keywords: Generative AI, education, skills, digital literacy, academic research projects

1. Introduction

"The greatest obstacle to discovery is not ignorance - it is the illusion of knowledge" was once remarked by Daniel Boorstin, a highly regarded American intellectual (Krucoff, 1984). Though this observation dates back to 1984, its relevance has only grown in the contemporary context of Generative Artificial Intelligence (GenAI). The latter "refers to computational techniques that are capable of generating seemingly new, meaningful content such as text, images, or audio from training data" (Feuerriegel et al., 2024, p. 111). The increased usage of GenAI, for example, for academic research projects, is expected to influence how we receive information and generate knowledge (Chen et al., 2023; Shallari & Hussain, 2024). The use of artificial intelligence (AI) may influence how and what we learn and could lead to a shift in skills requirements (Benbya et al., 2021; Rafner et al., 2022). This implies that some skills may become less important through increased GenAI usage over time, while new ones are required (Rafner et al., 2022).

Prior research refers to reskilling, which is the process of individuals acquiring fresh skills and competencies and refining existing ones with new demands due to interacting with AI (Rafner et al., 2022). Reskilling implies two streams of skilling: deskilling and upskilling. Deskilling describes reduced skill development since skills can be displaced to AI (Chuang, 2020) and "the loss of professional skills due to technological or work practice changes" (Rafner et al., 2022, p. 26). Upskilling, by contrast, refers to the acquisition of competencies essential for augmenting both comprehension and proficiency in utilizing AI systems (Jaiswal et al., 2022) to improve efficiency (Moore et al., 2020). When humans and AI fail to engage in "mutual learning", it can result in a "performance gap," limiting the potential outcomes (Rafner et al., 2022, p. 30).

Recent research has been done on increased technology use in higher education (Lee et al., 2024), including AI for academic research projects (Chan & Zhou, 2023; Chen et al., 2023; Lockwood & Castleberry, 2024). Relying more on GenAI can increase efficiency (Chan & Zhou, 2023). However, increased application of GenAI "at the expense of expertise seems a short-sighted solution" (Sutton et al., 2018, p. 17). Deskilling can create a high level of dependency when students do not develop skills to, for instance, critically reflect on the output. We can only manage potential negative consequences of students using GenAI for their academic research projects if we

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understand reskilling. We, therefore, aim to answer the following research question: *What skills are affected by reskilling through increased GenAI use for academic research projects in higher education?*

Accordingly, we conducted semi-structured interviews with higher education students using GenAI for their academic research projects, seeing the need for domain-specific investigations on deskilling (Rafner et al., 2022).

The interviews outlined differences in skills affected by reskilling depending on the type of task in which GenAI is applied. We further provide insights into what skills can be displaced to GenAI without any expected negative long-term consequences and which skills affected by deskilling might negatively affect students' competence levels in academia. We thereby reflect on both perspectives: On the one hand, we highlight the chances of deskilling in case of less relevant skills for future work (such as more time to focus on creativity skill development instead of routine skills). On the other hand, we shed light on unintended deskilling processes as important skills that would be required for responsibly conducting research and academic research projects, which can be referred to as a skill gap (Morandini et al., 2023).

We provide theoretical and practical insights into which skills can be affected by reskilling when using GenAI for academic research projects, thus, presenting three key findings. Firstly, the paper reveals a critical skill gap: students recognize the importance of critical reflection when using GenAI but experience a decline in it due to their reliance on GenAI for increased efficiency. Secondly, despite believing their performance would improve without GenAI, students consistently choose to use it because of its efficiency. Thirdly, motivation affects reskilling: students driven by intrinsic factors fear deskilling with increased GenAI use, while those with extrinsic motivation report rather upskilling.

The paper is structured as follows. We outline the theoretical background in the next section (2). The data collection and analysis approaches are explained in section 3. Section 4, presents the results and discusses them theoretically afterwards (5). Finally, we outline our conclusion (6).

2. Theoretical background

Before we dive deeper into which skills might be affected by reskilling due to the increased use of GenAI to complete academic achievements, we need to understand the differences between deskilling, upskilling, and reskilling (2.1). Next, we present the expectancy theory that can provide possible explanations for processes linked to reskilling that we may observe in the qualitative data. Afterward, we outline why there might be something such as deskilling and upskilling (2.3). Figure 1 summarizes the key dimensions relevant to our study, which are further explained in the following.

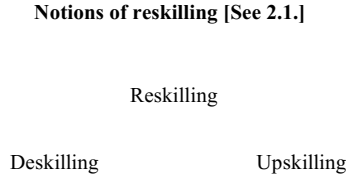

Figure 1. Theoretical framework

2.1. Notions of reskilling: Deskilling and upskilling

The increased use of GenAI can affect individuals' abilities in different ways, which are linked to the notion of reskilling. Reskilling has been defined in preceding studies as the dynamic process whereby individuals acquire new skills and refine existing competencies in response to the evolving demands triggered by the implementation of AI technologies (Rafner et al., 2022). This process encompasses deskilling and upskilling. Deskilling refers to the diminishing emphasis on skill development, often attributable to the displacement of certain tasks by AI (Chuang, 2020), and is characterized by the erosion of professional capabilities resulting from technological advancements or shifts in work practices (Rafner et al., 2022). By contrast, upskilling involves the acquisition of competencies necessary for enhancing the understanding and proficiency in utilizing AI systems (Jaiswal et al., 2022), ultimately aimed at optimizing operational efficiency (Moore et al., 2020). Failure to facilitate "mutual learning between humans and AI" may lead to a "performance gap" (Rafner et al., 2022, p. 30).

2.2. Expectancy theory: motivational factors that may influence reskilling

Vroom's expectancy theory (1964) helps us to understand the processes of deskilling and upskilling better, as motivation is key to continuous learning (Gopalan et al., 2017). The theory suggests three key aspects affecting individuals' motivation: expectancy, valence and instrumentality.

i. **Expectancy** suggests that individuals are willing to put more effort into a task if they expect that effort to influence their performance positively. In this study context, we are interested in finding to what extent students believe that their skills and commitment are decisive for the success of their academic research projects.
ii. **Valence** considers "the importance, attractiveness, desirability, or anticipated satisfaction with outcomes" (Van Eerde & Thierry, 1996, p. 576). It can be referred to the extent to which students are interested in very good results for their research projects.
iii. **Instrumentality** "has been interpreted not only as a relationship between an outcome and another outcome but also as a probability to obtain an outcome" (Van Eerde & Thierry, 1996, p. 576). Concerning this, we are interested in the extent to which students believe that GenAI tools can improve their performance in research projects.

As outlined, we assume that all aspects drive individuals' motivation (HemaMalini & Washington, 2014) and, consequently, reskilling as learning new things is highly linked to motivational factors (Gopalan et al., 2017). This knowledge will help us to find causes for deskilling and possible measures to avoid the deskilling of skills still relevant to conducting academic research projects, although using GenAI in the future.

2.3. Reskilling in human-AI interaction

While prior research on human-AI interaction addresses reskilling, for instance, in the context of medical professionals (Rafner et al., 2022), qualitative investigations on reskilling in the context of GenAI usage for academic research projects are needed. Yet, prior research in AI contexts will help us to interpret our new findings. Therefore, we will highlight the key findings of previous research on reskilling in human-AI interaction in the following.

2.3.1 Deskilling. Upon screening the current literature, we found different skills to be affected by the deskilling process resulting from reliance on AI in human-AI interaction.

Increased reliance on AI can have certain impacts on individuals' perceived autonomy. Support in decision-making based on AI was found to make individuals attribute autonomy to the AI system (Mayer et al., 2021), implying they decreasingly assume responsibility. Furthermore, a (perceived) loss of autonomy can have severe impacts when the AI support system has technological issues. Employees may also be unable to make decisions independently when using the system from day one of a new job (Strich et al., 2021). In addition, when relying on AI-based advice, individuals may also not understand how to interpret the output, which can result in decreased skill development and affect employees' domain knowledge (Rafner et al., 2022) or creativity (Zirar et al., 2023).

2.3.2 Upskilling. Besides the effects of deskilling, using GenAI may also lead to the development of new skills. Upskilling focuses on skills that are essential for the use of GenAI or emerge through interactions with technology (Rafner et al., 2022). In this context, current research particularly emphasizes transversal skills that allow individuals to apply them in different contexts (Hart et al., 2022). Morandini et al. refer to "critical thinking, problem, solving, communication, and collaboration" as typical critical transversal skills as "they enable workers to adapt to new technologies and processes and to continuously learn and develop in the face of rapidly changing technology" (2023, p. 46).

Other examples are English fluency, the language of AI documentation and interfaces, that empowers individuals to navigate better and utilize GenAI technologies. This proficiency fosters a deeper understanding of AI tools, enhancing their use and innovation (Irawan et al., 2022). In addition to language skills, basic mathematical concepts are proposed to enable effective AI applications (Verma et al., 2022). Analytical and critical thinking skills are also suggested to be vital for interpreting AI's output and arriving at well-informed conclusions (Delanoy & Kasztelnik, 2020).

Given that current research shows that the use of GenAI significantly impacts students' writing processes concerning structuring academic essays (Guo et al., 2023), sharpening the argumentation (Storey, 2023), enhancing text quality, or analyzing data (Malik et al., 2023), we aim to investigate which skills might be affected by reskilling in academic research projects.

The theoretical background and initial findings of prior research help us to analyze our explorative study, aiming to outline shifts in skills caused by GenAI use for academic research projects in higher education. The next sections present our methods of data collection (3.1) and data analysis (3.2) processes.

3. Methods

We interviewed 12 students, which allowed us to compare differences in reskilling processes in the context of GenAI use in academic research projects, depending on different tasks and subjective experiences. The data collection relies on semi-structured interviews with students who have used GenAI for academic research projects for more than six months.

3.1. Data collection: Semi-structured interviews

We interviewed 12 students to identify the skills affected by reskilling when using GenAI in doing research. The students were recruited from a master's course at a German University. All students reported using GenAI for their academic research projects and had already studied for over six semesters at a university. We chose only students who had studied for more than six semesters as they have had experience writing academic research papers without GenAI tools (in their bachelor courses) and, thus, can compare it with the new setting. All interviews were held in German and translated into English afterward. The students received five credit points for their exam performance for participating in the interviews. The interviews took place from May 20 to 31, 2024, and each lasted about 20 minutes.

Before starting the interviews, students were asked whether they agreed to be recorded and have their recordings transcribed. Next, we asked them about their course of study, which semester they studied and their understanding of GenAI.

We then asked the following main questions:

- For which tasks do you use GenAI tools when doing your academic research project?
- Why do you use GenAI tools for doing your research project?
- Which new skills have you acquired through using GenAI tools for your academic research project? [*upskilling*]
- Which skills do you require to use GenAI for your academic research projects? [*reskilling*]
- To what extent do you believe you lost or did not learn certain skills using GenAI tools for your academic research projects? [*deskilling*]
- To what extent do you believe that your skills and commitment are decisive for the success of your academic research projects? [*expectancy*]
- To what extent do you think GenAI tools can improve your performance in your academic research project? And why do you think so? [*instrumentality*]
- How important is a very good result for your academic research project? Please explain what your main motivators are. [*valence*]

The demographic data of the 12 students interviewed are shown in Table 1 and are numbered to ensure anonymity.

Table 1. Demographic data of participants

Reference	Sex	Semester	Masters Course
I1	m	1st	Business Education II
I2	w	1st	Business Education II
I3	m	3rd	Business Education II
I4	w	1st	Business Education II
I5	m	1st	Business Education II
I6	m	1st	Business Education II
I7	w	1st	Business Education I
I8	m	1st	Business Education II
I9	w	1st	Business Education II
I10	w	1st	Communication
I11	w	1st	Business Education II
I12	w	1st	Business Education I

3.2. Data analysis: Open, axial and selective coding

The data analysis followed the approach suggested by Gioia et al. (2013). Consequently, our coding schema (see Figure 2) comprises 1st order concepts, 2nd order themes and aggregated dimensions. The 1st order constructs were derived from the data itself. Hence, we stuck to the wording of our participants. In the second step, we derived the 2nd order themes that cluster the 1st order concepts according to themes. In doing so, we interpreted the 1st order constructs based on our theoretical background. In the last step, we assigned the 2nd order themes to the three skilling processes (see Section 2.1.) and the three motivational factors (see Section 2.2) as aggregated dimensions. The coding process, conducted by two authors, followed an iterative structure. The coding scheme was refined through multiple discussion rounds until both coders reached a consensus.

Figure 2 presents a snippet of our coding schema with the 1st order concepts, the 2nd order themes and the aggregated dimensions.

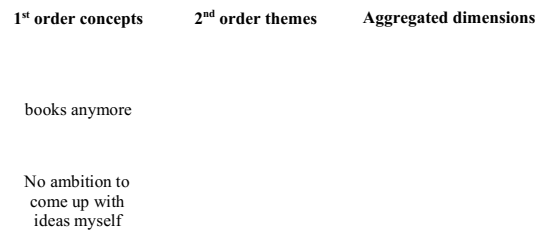

Figure 2. A snippet of the coding schema

4. Findings: Reskilling through GenAI usage in academic research projects and students' motivation

The following pages first present the various tasks where students utilize GenAI in their academic research projects (see 4.1). Subsequently, the study's results are outlined in relation to the skilling processes: upskilling (see 4.2), deskilling (see. 4.3) and reskilling (see 4.4). Table 2 presents an overview of the main findings. Finally, we outline what motivates students in the context of their academic research projects (see 4.5) to better understand how this may affect their self-perception of their personal reskilling processes.

4.1. Students reported that GenAI helps them primarily with brainstorming, summarizing, paraphrasing, understanding and analyzing data, as well as emotional support.

Many students (n = 6) stated that they use GenAI to summarize papers. As one student explained: "*[This way] I can simply check whether the paper is relevant to me. I don't have to read through it first and search to see if anything is interesting, but I can get a summary*." (I9)

Six students reported that they use GenAI mainly for brainstorming and generating new ideas to "*just get inspiration so that [they] don't just sit in front of a blank piece of paper and think, what should I do now?*" (I9) Another student described her process of using GenAI: "*When we get a work assignment and I just don't know where to start, how to start, so that I use it [ChatGPT] like a collection of ideas … I put a question in there … and then it gives me an overview, a rough concept … and then I know how I could start.*" (I7)

Table 2. List of skills affected when using GenAI in academic research projects

Skills affected		Reference
DE-skilling	in-depth understanding	I2, I4, I8, I9
	text comprehension	I3, I9
	self-motivation	I8, I11
	critical reflection	I10, I11, I12
	information search	I1, I3, I5, I6, I7, I12
	creativity and independent thinking	I1, I6, I7, I9, I10, I11, I12
	attention span and concentration	I7, I8, I10, I12
	writing and communication skills	I3, I5, I6
UP-skilling	logic reasoning	I8
	domain knowledge	I3, I4, I7, I8
	precise communication	I3, I5, I7, I9, I11
	digital expertise	I7
RE-skilling	precise communication and prompting	I1, I8, I10, I11
	self-motivation to learn	I7, I12
	digital skills	I3, I4, I5, I7, I9
	critical reflection	I1, I2, I3, I4, I5, I6, I7, I8, I9, I10, I11, I12

Additionally, some students (n = 6) reported using GenAI to paraphrase their own words to make them sound smoother or reframe existing research to avoid direct quotes. As one student framed it: "*When I say 'Okay, the text fits what I want to say, but I'd like synonyms or I'd prefer to rearrange the sentence so I don't have to quote it verbatim,' I simply use it to avoid the cognitive effort. For me, it's just a more efficient way of working.*" (I9)

Moreover, students use GenAI for research and data analysis in particular because "*it saves a lot of time, of course. So the advantage is that you can search through as much data in just a few seconds as you wouldn't be able to do yourself. That's the biggest advantage, I would say*." (I12)

Interestingly, one student reported how she seeks to receive emotional support from ChatGPT when she is uncertain about the quality of her own work: "*What I actually did for the very first time was, after a small emotional moment regarding my bachelor's thesis*

when I wasn't quite sure if I was doing everything right or started questioning everything a bit, I sent ChatGPT all the data I had collected so far, my research question, and my analysis. I asked, 'Do you think this makes sense? Do you think what I'm doing is coherent?' and I also asked it to be nice in its response." (I10) In doing so, she hoped it would provide her with some sort of emotional support. She added: "*I know it's not the same as asking my supervisor, but at that moment, I was really just looking for a bit of reassurance, a small safety net.*" (I10)

4.2. Students reported increased communication skills, digital competencies and broader domain knowledge.

Starting with the perceptions of upskilling, four of the students said that using GenAI helps them to understand domain-specific problems better and, thus, supports their learning process of domain knowledge when writing academic essays. This can be seen, for example, in the use of statistics software. As one student stated: *"As far as coding in R is concerned, I [...] asked ChatGPT in this case and ChatGPT then also explained virtually what code you ultimately need, but also how to get there*." (I8) Another student pointed out that she learns English while translating with GenAI tools and *"because I [the student] translate a lot of things, I have to say that some things [vocabulary] still stick*" (I7).

The skills most reported to be part of upskilling (n = 5) were communication skills and the ability to write precise formulations. Using precise commands when working with GenAI tools was said to be essential for good results from the students' perspective. This is underlined by statements such as "*and so you learn how to put the most important things succinctly but qualitatively in terms of content"* (I3) or "*[…] at the beginning it was more the case that I used keywords, but now you can really say exactly what you want and the more you write about it and simulate it [ChatGPT], the better the results*" (I9). One student mentioned that her logical reasoning was improving and another said that her digital skills were also developing. She said: "*[If] you use digital tools, you also need digital skills to understand the whole thing and use it properly*" (I7).

4.3. Students reported decreased creativity, critical reflection, learning abilities and concentration.

Regarding deskilling, the majority of students (n = 7) reported that their creativity and independent thinking might get lost through increased GenAI use for academic research projects. One student (I11) explained that she uses ChatGPT for brainstorming and said, "*That's how you unlearn this creative thinking a bit*" (I11).

Furthermore, GenAI use was also reported to have certain effects on students' learning skills. Some students reported that using GenAI for their research projects negatively affects their motivation to do it themselves (n = 2). One student said: "*I've noticed myself that when I have a task where I have to read a long text, I think to myself, oh no, there's far too much text. I want to enter it into ChatGPT right now and have it summarized.*" (I11) Other students explained how GenAI decreases their critical reflection skills (n = 3). As one student framed it: "*And because I rely so much on that, what [ChatGPT] paraphrases is correct, I notice that I have become a little less precise in double checking.*" (I10).

Additionally, some students reported that using GenAI to get explanations on different topics results in a poorer in-depth understanding of the topic than conducting thorough research or reading a book rather than relying on a short summary generated by a GenAI since "*then the anchoring of knowledge is missing*" (I2). Moreover, some students (n = 4) noted that they felt their attention span and independent thinking had decreased since they regularly used ChatGPT for their academic projects.

Skills linked to language were also reported to be affected by deskilling through increased GenAI use. One student who also worked as a teacher shared her concerns: "*I can see how difficult it is for children to understand a text. And if they just put it [a text] into AI [to get a summary], so to speak, then they really don't have any understanding of the text at all.*" (I9)

Similarly, some students explained that they perceived GenAI usage negatively affecting their text comprehension (n = 2) and writing and communication skills (n = 3).

4.4. Students reported precise communication, self-motivation to learn and critical reflection to be critical for GenAI use.

In terms of reskilling, students (n = 11) emphasized that critical reflection is necessary for the proper use of GenAI in academic research projects. It is important *"that you can also reflect critically [...] because there are often things that just don't fit*" (I11) and "*then you should definitely question the results and if suitable results are offered, you should, of course, read them again in detail*" (I3).
In addition, the ability to formulate precisely and write confusion-free prompts is mentioned by four students. The students' statements show that this is a matter of practice and can be learned. As one student explained: "*And it actually took me a while until I had the ability to formulate the prompts in such a way that I knew in advance that I was going in the right direction.*" (I8)

Other students (n = 4) mentioned that it is important to develop digital skills in order to be able to use GenAI in a targeted manner. This applies "*[to] digital skills, just that you know that the tools are available, that you have a rough overview, maybe what you can do with them*" (I7*).* It is emphasized that it is necessary to be able to select suitable tools. Furthermore, in order to learn how to use the tool, self-motivation was reported to be relevant to "*learning by doing. So you write in and then maybe ask yourself what else can the tool do*" (I12).

4.5. Students' motivation for their academic research projects was mainly driven by the desire to receive good grades, prove something to themselves and be efficient.

Concerning students' perceived *valence* of receiving good grades, most students stressed that they are very motivated to perform well, yet the driving factors for their motivation differed. Some students (n = 6) stated that achieving good grades is important for their later career development. As one student framed it: "*Especially when you go into the private sector, your grades play a role, and the better you are, the easier it is for you*" (I8). By contrast, other students (n = 6) are primarily intrinsically motivated and want to prove their self-worth and learn something (n = 1). As one student framed it: "*I'm just doing it for myself because I've set myself a personal goal*." (I9)

Regarding the motivation for using GenAI, which we linked to *instrumentality*, all students emphasized the timesaving and efficiency of GenAI when using it for academic research projects. As one student framed it: "*Well, I think I would simply invest more time, effort and, energy into it [the research project] than I would now with an AI*" (I10). By contrast, other students (n = 4) stated that they perceive to have more effort when using GenAI through double-checking outputs. However, GenAI was reported as being critical for the project's success (n = 5) as "*an incredible amount of data can be processed; I'm not capable of that*." (I5). Interestingly, other students (n = 2) reported that they would often not understand certain connections in the literature without ChatGPT, which would minimize their performance. One explained: "*If I haven't fully understood the theory behind it ... ChatGPT can explain it to me in a simpler way than it's presented in academic literature.*" (I2)

Concerning students' *expectancy* that their effort is decisive for their project's success, all stated their personal effort, skills and commitment to be critical for good performance in the research projects. The GenAI, for instance, was reported to lack creativity (n = 3) and GenAI hallucinations were mentioned as a reason (n = 3) why students think their personal skills, such as critical reflection, would be crucial for good grades: "*When I type, 'give me 10 sources on the topic of knowledge management in companies' or something like that, I do get sources, but the books don't even exist. So, it's kind of, well, worthless if it's not theoretically sound*." (I9). Another student mentioned that human skills are critical for good research since only humans "*can place connections and relationships with other topics that should be critically examined into context, meaning it perceives the overall context*." (I2)

5. Discussion and implications

This study's findings aim to shed light on what skills might be affected by reskilling through increased GenAI use for academic research projects in higher education and what may motivate students to rely on their own skills for doing academic research projects. Based on semi-structured interviews with students who use GenAI for their academic research projects, the study provides an overview of several skills that become less relevant or, by contrast, more crucial when using GenAI in academia. The following section outlines three key findings that contribute to IS research and require further investigation.

Firstly, the paper indicates a critical skill gap since, although students recognize the importance of critical reflection when using GenAI for academic research projects, they actually experience a decline in critical reflection by relying heavily on GenAI as they perceive it to increase their efficiency in academic research projects (linked to *instrumentality*). Similarly, Malik et al. (2023) address issues linked to

overreliance and concerns that AI use might lower critical thinking abilities. Further research would be required investigating the long-term implications of GenAI use and academic integrity.

Secondly, the findings suggest that despite some students believing that their performance would improve if they worked independently without using GenAI (linked to *expectancy*), they consistently choose to use AI due to higher efficiency. While Nguyen et al. (2024) found that high-achieving students use GenAI more frequently and more consciously than low-achieving students, who only use such tools as support, future research is needed in this regard.

Thirdly, the findings suggest that individuals' motivation for good performance in research projects (linked to *valence*) may affect reskilling. Students motivated by external factors, such as better opportunities on the labor market, reported more skills that referred to upskilling when speaking about their GenAI use. By contrast, those who perceived intrinsic motivation for performing well in their research projects, such as a desire to learn, reported more that they sometimes fear downskilling through increased GenAI use. Future research would be welcomed that quantitatively investigates the relationships between motivational factors and perceived reskilling through GenAI use.

In addition to the findings outlined above, the study has several limitations. While we focused on master's students in business education, including other stakeholders, such as PhD students and academic researchers who use GenAI in their research projects, could provide additional insights. Furthermore, the findings cannot be generalized; larger sample sizes could enhance the significance. Moreover, the answers can be biased by social desirability, in cases where the students do not want to disclose their usage of GenAI in their academic research projects. Future research is also encouraged to quantitatively investigate the extent to which our findings can be validated and expanded.

6. Concluding comments

The introductory quote stating that "the greatest obstacle to discovery is not ignorance - it is the illusion of knowledge" underscores the importance of critical reflection in the context of GenAI in academic research. As our study highlights, reliance on GenAI can create an illusion of proficiency while leading to a decline in critical thinking skills. Therefore, we must recognize and address this skill gap to ensure that GenAI usage in academic research projects enhances rather than hinders the development of relevant skills. This paper outlines how students' motivation might affect their perceived deskilling and upskilling processes. Future research and educational practitioners are encouraged to foster critical reflection on potential unintended consequences of GenAI use for academic research projects.

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