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Is Artificial Intelligence Causing Journalists to “Deskill”? Exploring Journalistic Deskill/Upskilling in the AI Age

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ABSTRACT

As artificial intelligence becomes increasingly used by journalists in news production, the question of whether this causes journalists to “deskill” becomes paramount. This paper discovers the core skills that journalists risk losing and the areas in which they must upskill to remain relevant in the AI age. Referencing the theory of disruptive innovation that may lead to struggles within the journalistic field, this study highlights the disruptive power of AI as “cognitive automation” and the potential harms it might cause to journalism as professional identity, institution and practice. Through in-depth interviews with journalists and editors, this paper reveals skills lost in research, writing, note-taking, analyzing, interviewing and independent thinking, and points to the importance of upskilling in the areas of fact-checking, discernment, stylistic writing, personal branding, prompt writing, editing, interpersonal communication, storytelling, mastery of AI, ethical use of AI, and original ideation. These findings reveal an urgent need for journalists to mindfully limit their reliance on AI, while also highlighting that journalism is more than an accumulation of technical skills; it should be accompanied by a moral compass which journalists must not lose, so that the “humanness” of journalism may be retained even in the AI age.

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Introduction

The rapid rise of artificial intelligence (AI) has seen tasks traditionally undertaken by humans now being performed by machines. As early as the 2010s, automated technologies were already taking over newsroom tasks such as the aggregating and funnelling of news content to journalists, identifying trending stories, translation, transcription, data visualization, story generation, and the auto-publication of news (Carlson 2015; Wu, Tandoc, and Salmon 2018). The emergence of ChatGPT in November 2022, capable of generating content from the simple use of prompts, has seen further integration of such technology into newsrooms (Cools and Diakopoulos 2024), as well as adoption by journalists themselves as users of AI with or without newsroom oversight and direction (Wu 2024a).

This then begs the question—when tasks in the newsroom are taken over by AI, does this impact the abilities of journalists in any way? The issue of “deskilling” is a significant

one to consider; already, it is very much talked about in other sectors like transportation, healthcare and finance (Rinta-Kahila et al. 2023) but has yet to be scrutinized in the field of journalism. Professional skills have always been crucial to the identity of a journalist—their ability to conduct research and interviews, synthesize different voices and perspectives, report stories in coherent ways, and provide analysis and evaluation of news pieces have always been seen as what differentiates them from non-journalists (Örnebring and Mellado 2018; Reyes-de-Cozar, Perez-Escolar, and Navazo-Ostua 2022). An “active practice” of this profession (Deuze 2005, 446) is what gives meaning to journalism and what makes a journalist “a journalist”.

How then might AI be disrupting this view of what constitutes the active practice of journalism as we know it? Are journalists at risk of losing certain core skills and what are they? And might this signal the need to reskill or upskill journalists in other areas, so that they may continue to do constructive work and exercise their competence?

This paper addresses these questions through in-depth interviews with 14 journalists and editors based in the global city and international media hub that is Singapore, known for its strong support for AI growth and development (Tham 2023); this signals considerable exposure of newsrooms to AI technologies. The goal is to discover if journalists, in their increasing use of AI, are indeed losing certain skills, and how they may upskill in other areas to keep practicing meaningful journalism. This is useful information for both news practitioners in the field, as well as journalism educators and scholars seeking to understand how journalism and its requirements are currently changing in the face of AI. In this paper’s final analysis, the implications of this deskilling/ upskilling trend for newsrooms in the long run will be discussed.

Journalism and Its Core Professional Skills

Journalism is traditionally associated with “a core knowledge and set of competencies” (Örnebring 2019, 1). It began to resemble its current form in the late nineteenth century (Wu 2022), when the founding of journalism schools in universities became one of the main drivers of its professionalization (May 1986), and the journalistic craft began to move away from general writing and printing of newspapers to gain greater legitimacy (Örnebring 2010). Students of journalism were taught technical skills like writing, editing, reporting, and fact-gathering, while they were being instilled with professional values such as ethics, objectivity, and journalistic rights and responsibilities (Vos 2012). These became “traditional competencies in journalism that graduates should always acquire”, strengthening the identity of the profession (Reyes-de-Cozar, Perez-Escolar, and Navazo-Ostua 2022, 28). Journalism was thereby able to establish clearer professional boundaries, demarcating journalists from non-journalists (Carlson and Lewis 2019).

With the rise of the Internet and social media, scholars have spoken about the need to train journalists on the “essential elements of journalism and [combine] them with technology training” (López-García, Rodríguez-Vázquez, and Pereira-Fariña 2017, 82). Journalistic training has therefore evolved to include skills needed to work with multimedia to conduct research and present the news using audio, video, photography, graphics, animation, etc. (Deuze 2007), to offer interpretations of news events from a barrage of unfiltered content (Tumber 2001), to analyze and critically evaluate online content effectively

(Wu 2025) and to synthesize different ideas or perspectives to form a coherent whole (Reyes-de-Cozar, Perez-Escolar, and Navazo-Ostua 2022).

In the age of big data and AI, Wu (2025) adds the ability of journalists to work with large datasets and AI technologies, noting the need for journalists to have “data literacy” skills to understand what data means and how to translate it into stories, “algorithmic literacy” skills to know how algorithms work and how to use them to aid content production, and “AI literacy” skills to understand AI and its biases and how to use it effectively. These signal interesting times of change for the journalistic profession where some skills might be viewed as increasingly valuable in the journalistic profession.

The Disruptive Power of AI as “Cognitive Automation”

The increasing use of AI in newsrooms and among journalists cannot be overstated. While “automated journalism” has been discussed by scholars from the 2010s (Carlson 2015; Wu, Tandoc, and Salmon 2018), discussions on AI in journalism truly began to peak with the introduction of ChatGPT and generative AI technologies in 2022. This has resulted in the “mainstreaming of AI use” as generative AI’s conversational interfaces allow people to interact with it as they would with another human being (Wu 2024a, 1).

Within newsrooms, generative AI has been able to create drafts of stories for news organizations (Nishal and Diakopoulos 2023), personalize content for readers (Newman 2024), analyze data for trends and insights, and tailor content to match the news organization’s style and tone (Shi and Sun 2024). Journalists are themselves using ChatGPT and other AI tools with or without newsroom direction or oversight, using them to conduct their own research, create first drafts of stories, and simplify, translate and summarize text, among other tasks (Wu 2024a).

Indeed, the use of AI in newsrooms and among journalists is here to stay. Ferrucci and Perreault (2021) refer to the need for news organizations to innovate as newsrooms become smaller amid budget cuts and layoffs. That said, innovation may itself be disruptive. Christensen (2003) coined the theory of disruptive innovation, indicating that industry adoption of innovation may lead to struggles within fields; this is especially so within stable fields that might not be able to adapt as quickly (Christensen 2013). This fast adaptation requires that the organization is clear on the innovation’s effects, sees how its own core competencies line up, and can integrate this technology effectively into the organization’s workings (Barrett et al. 2015). Given how deeply entrenched journalism’s professional culture is, stabilized through decades of practice (Deuze 2005), it becomes even more imperative to bring to the forefront observations on how this culture is slowly but surely changing in the AI age.

Herein lies the importance of recognizing what AI is and what it can do to alter the make-up of journalism in significant ways.

Rinta-Kahila et al. (2023) label AI technologies as “cognitive automation”—this means that AI can “enable humans to ‘offload’ their cognitive burden to machines”, freeing up their “cognitive capacity for other ideally more meaningful tasks” (1379).

Simply put, users can use AI not just to execute commands but to think on their behalf. This is troubling to scholars like Martin De Holan, Phillips, and Lawrence (2004), who see an organization’s “most important resource—knowledge capital” stop growing as a result. There is a danger that human knowledge and skills may be lost as reliance on AI increases,

simply from a lack of practice of such skills over time (Raisch and Krakowski 2021). This is worsened when such cognitive automation operates within a black box, preventing its complex AI models from being scrutinized and assessed (Lebovitz, Lifshitz-Assaf, and Levina 2022).

The Deskillling–Upskilling Debate: A Focus on Journalism

Indeed, one of the greatest dangers of increased AI use is the “deskilling” or erosion of human skills and expertise. Deskilling here may be defined as “the loss of skill, judgment, or initiative causing an individual to become less proficient in a particular task or activity” (Mehan 2024). The concept of deskilling is not new—from as early as the eighteenth to nineteenth centuries, as factories became increasingly mechanized in the UK, new technologies also resulted in massive job loss and deskilling of textile workers, leading to worker uprisings termed as the “Luddite riots” (Mehan 2024).

In this current era of automation, Rinta-Kahila et al. (2023) state that deskilling is particularly problematic if “workers remain accountable for tasks for which they lack sufficient understanding, rendering them incapable of responding if the automation fails” (1378). Skill erosion may take the form of what a person knows, as well as their ability to carry out a task, labelled as declarative knowledge and procedural knowledge respectively (Anderson 1993; McCall, Arnold, and Sutton 2008).

Using AI to help one think and/or make decisions may result in lower situational awareness among users (Oliver, Calvard, and Potočník 2017), and even the development of an automation bias that sees the user favouring the system’s suggestions when faced with contradictory results (Goddard, Roudsari, and Wyatt 2012). When such systems are used more extensively and are deemed as generally reliable, they will also lead to complacency among users who trust their results even without full understanding of the situation (Merritt et al. 2019).

There is also a degeneration effect that a person’s accumulated expertise diminishes as they no longer work to develop and maintain their expertise (Carr 2015). Fiol and O’Connor (2003) speak of an increased mindlessness, defined as “a state of reduced attention” where the worker becomes less alert and no longer pays attention to detail, resulting in the mechanical performing of tasks (58). In the long run, this creates an additional concern—that workers lose their sense of purpose (Mehan 2024) and feel increased alienation from the production process (Vallor 2015), thereby reducing their perception that they are conducting meaningful work (Bankins and Formosa 2023).

The fact is, the idea of deskilling is often obscure to workers or managers themselves (Rinta-Kahila et al. 2023). Without careful reflection, they might be unaware of their loss of knowledge and skills, given how gradual the process might be as the dominance of the new technology takes hold. In some cases, the skills that they lose might become obsolete over time in the industry (Tushman and Rosenkopf 1992); this is less problematic than if the skills lost remain critical to the practice of that profession.

In the case of journalism, the effect of deskilling might be multifold.

Journalists may no longer be able to perform certain tasks crucial to the news production process if they are constantly reliant on AI to think for them. For instance, relying constantly on ChatGPT to improve one’s sentence constructions and correct awkward grammar may create a complacency in the journalist that they need not put

in the effort to write well. They therefore lose their expertise to do what is crucial as part of newswork.

This also places such journalists in positions of disadvantage if they find themselves in environments where AI is not available or not allowed to be used. The fact is, AI use around the world is uneven—the extent to which AI is incorporated into newsroom processes or everyday life is contingent on the political, economic, social and cultural contexts of that society (Wu 2024b)—and the technology might not always be there to help. If a journalist cannot string a clear and succinct sentence together or articulate their thoughts in a way that can be understood by audiences, this impacts not just the journalist's own feelings of self-worth, but also negatively affects journalism's ability to play its public service role to create a well-informed citizenry.

Another potential implication is tied to the industry's professional identity and expertise as a whole. What would make a "journalist" in the truest sense of the word if the individual is using AI to perform key tasks that are integral to the job? If journalists require the use of AI to deliver good quality work, can newsrooms still make adequate assessments that they have hired individuals skilled enough for the job?

The opposite of deskilling is upskilling. This term may be defined as the improving or enhancing of skills tied to a person's existing role or field, often to meet future challenges that lie ahead in that profession; it is different from reskilling, since this term refers to the acquisition of new skills to transition to another role or industry (LinkedIn 2025). Indeed, AI technologies create opportunities to upskill as "new forms of interaction and synergies" between humans and machines emerge; in this way, worker engagement can be preserved, and human and AI skills and knowledge can grow together (Pilon 2024, 188). Upskilling and keeping abreast of the technology also allow workers to enhance their autonomy to lead their work tasks (Bankins and Formosa 2023).

Placed in the context of journalism, upskilling may mean the acquisition of a myriad of new skills tied to new technologies utilized in the newsroom, so that the journalist becomes a master of the technology, managing its use and controlling its output, rather than becoming a mindless servant to it. With such new skills in place, journalists may then learn to further adapt to newer technologies through "continuous learning", as and when they emerge and are implemented (Rinta-Kahila et al. 2023, 1384).

Method

To fill the research gap pertaining to the deskilling and upskilling of journalists, this study was guided by two research questions:

RQ1: Is AI use causing journalists to "deskill"? What skills are they losing when they are reliant on AI?

RQ2: What new skills must journalists learn in the AI age?

To answer these questions, the research method of in-depth interviews was utilized, deemed to be particularly useful to discover insights from insiders or experts on a new or emerging trend. A set of questions was crafted to discover the skills journalists might be losing when they become more reliant on AI, and the skills they must acquire in the AI age to maintain their relevance in the industry. This research method has

Table 1. Summary of participants.

Code	Age range	Rank	Media type
A	30–40	Editorial Lead	Online
B	30–40	Senior Journalist	Online
C	40–50	News Editor	Print
D	40–50	Chief Editor	Online
E	40–50	Editor	Print
F	40–50	Editor	Broadcast
G	30–40	Assistant Editor	Online
H	20–30	Journalist	Print
I	40–50	Executive Producer	Broadcast
J	30–40	Journalist	Broadcast
K	30–40	Correspondent	Print
L	20–30	Correspondent	News wire
M	20–30	Journalist	News wire
N	40–50	Senior Producer	Broadcast

been used by scholars such as Wu, Tandoc, and Salmon (2018) and Cools and Diakopoulos (2024) in their investigations of automated technologies in newsrooms.

The participants were recruited using the snowball sampling technique, where the contacts from the author's personal and professional networks were first approached; they would then recommend others who would be suitable for this study. All the participants had to be journalists or editors working in the news industry, with at least five years' experience on the job, so they had the journalistic expertise to offer insightful responses.

Recruitment of these participants took place in Singapore, a global city in Asia and an international media hub within which a mix of local, regional and international news outfits reside. This is also a country that has highlighted its commitment to AI research and development, with the government stating that it “welcomes global AI talent” and has set up a national AI strategy dedicated to promoting “AI adoption across all sectors” (Tham 2023).

Fourteen participants were recruited in total, hailing from print, broadcast and online news outlets, as well as newswire agencies (see Table 1). The interviews took place in February and March 2025 via video calls, with each interview lasting about 30 minutes. Each interview was digitally recorded for transcribing purposes, with participants giving their verbal consent to take part in this study at the start of the interview. The transcripts were then manually coded line by line, with codes placed into conceptual bins so that a list of themes would emerge, enabling the answering of the research questions posed (Tracy 2013).

Findings

Skills Journalists May Be Losing: The Deskilling

Participants revealed significant concerns that journalists might be losing their **research skills** due to AI. This could relate to their belief that they no longer need to do any further research or conduct more interviews beyond what AI is feeding them. Participant A said that over-relying on AI “might prevent journalists from going back to the primary sources of information” and “question where their information comes from”, while Participant G said journalists might lose their ability to “track down information themselves” and

“just rely [on] AI to do it for them”. Participant C added that this also extends to journalists’ willingness and ability to speak to people to obtain information, noting that “in the past, if you struggle with a topic or concept, you would turn to an expert in the field to understand a topic better”, but AI can now provide that information to journalists.

This might result in journalists being “happy that the model has given [them] everything and then [they] just roll with it”, according to Participant H, and “reduce their incentive or motivation to dig further or double-check or cross-check figures that AI gives them because they might take things for granted”, according to Participant K. The result over time is laziness—Participant L said that it “could make journalists lazier in the future if that becomes the go-to for everything that they need to research on”, while Participant M said “resourcefulness” of journalists might drop because “everything is presented to them nicely and [they] don’t have to go find all the information”.

Journalists losing their **writing skills** was another big concern for the participants. Participant H worried that journalists might “become so reliant on AI tools that they don’t know how to produce [the news] themselves”, since they no longer need to “put in the sweat or the originality” to do the work anymore. Participant L said journalistic use of AI might reduce the “speed at which they write” and “their command of the language”, while Participant N said that with young journalists using AI, it is hard to tell if “they are really good at their jobs” because “if AI can produce somewhat decent work and the app crashes, they might say they can’t produce a script on their own”.

Participant F stressed that writing requires “rigour and discipline” which becomes honed with practice:

Writing is like any other art form—the more you do it, the better you get at it. And if you rely on AI too much, you may lose what it takes to connect to your audience. If you don’t know how to write it yourself and you depend on AI to always do it for you, the AI may only have one standard form of writing. But when you’re telling a story about a person’s life, it’s very different from another person’s life. But AI may just use the same format to write it.

Participant A echoed this, stating that journalists might “unintentionally parrot” the type of writing that AI gives them—writing that she describes as “a bit more mundane and informational”. In this way, writing “becomes less of a craft”, when journalists are not able to see the rhythm and cadence to sentences, causing their writing to lose that human touch. Participant B agreed that journalism is about honing one’s writing skills over time and with experience, and if one is “always asking [AI] to proofread, sharpen the grammar, change the language to make it more formal and so on”, they “can’t truly call [themselves] someone who can write well”.

A few participants also discussed the loss of **note-taking skills** in journalists who rely on AI tools. While the use of recorders before the AI age has already meant that journalists need to take fewer notes, the loss of this skill is amplified with AI tools that are able to generate entire transcripts of speeches and interviews. Participant C noted that there is “still value in journalists writing in shorthand and taking good notes during an interview or a press conference” because “when you write something down, you tend to remember it and when something strikes you, you can make a note of it rather than not do any writing at all”. Participant E echoed this, stating that there are situations when a lack of note-taking abilities presents a problem, such as in prisons where no phones or laptops are allowed, and only tape recorders, pens and notebooks can be brought in.

In those instances, a journalist who cannot write in shorthand would not be able to “keep up as quickly [with the interview] or would have missed certain things”.

Another loss would relate to **analytical skills**. Participant B said that AI can help journalists “look at big datasets and just come up with things to focus on” by asking it, for example, to “come up with the top five trends”. This might stop a journalist from “looking through the data [themselves] and see what the trends are” by relying on “their own contextual knowledge and experience to give a fairer analysis of the data”. Relying on AI, he said, means that the journalist is “not in charge of how the article turns out anymore” because “it’s like AI is in charge of asking the questions instead”.

This ability of AI to churn out the right questions to ask might also lead to a loss of **interviewing skills** among journalists—Participant B said that if he is tasked to do an interview and “asks AI to come up with questions, [he doesn’t] feel like [he’s] in charge of the interview anymore, or is tuned in to what [he’s] asking”, compared to if he had written the questions himself.

Ultimately, the participants revealed their fear that AI might erode the journalist’s **ability to think for themselves**. Participant I said that using AI in news writing prevents a journalist from using their own ability and skills:

I think it relates to processing information in general. Because if you think about it, in journalism, you gather facts, then you identify what’s the new point, what’s the story, is this important information, is this information that I can toss out, is this information that I should pursue. If you get the machine to do all that for you, then you don’t think anymore.

Agreeing was Participant J, who was concerned about AI “dumbing down the profession” if it is used to create entire drafts, saying that journalists “don’t get to exercise that muscle of interviewing, writing, and putting together a story”.

It is worth noting, however, that not all the participants were equally concerned that AI might deskilling journalists. Several participants noted the big picture view of AI being able to help journalists with their work tasks overall, such as Participant C acknowledging that AI’s recording and transcribing function can “enable the journalist to engage in a better conversation with the interviewee, rather than just be so fixated on trying to capture everything by writing it down”, and Participant J said she does not believe AI would necessarily downgrade one’s research skills because “it is not too different from a search engine” and can help journalists “increase productivity and free up time”. Participant L added that she does not think it is a huge risk that journalists would lose their research skills; AI just helps to “streamline research processes” and enable them to “find the things that [they] need using the AI assistant for instead of manually going through each database”.

Skills Journalists Must Gain or Enhance: the Upskilling

Participants referred to the need for journalists to enhance their **ability to discern**—between fact and fiction, facts and opinions, good and bad journalism or writing, and biased and unbiased content, among others. With regard to AI output, Participant A referred to this as “knowing when something is not quite right, even if it’s serving you something that already proves your assumptions or already proves what you were looking for”; she discussed the need to question further if something is really true and

whether one may obtain other sources of information to verify this. Participant C also discussed the need for journalists to be “more discerning and less trusting of everything that is given to them”, and Participant D said not to “just take wholesale what AI is saying” and to do additional fact-checking.

Discernment in the form of recognizing “good journalism” and biases also came up in other responses. Participant H said journalists must be able to judge AI’s output to ascertain if a draft is “good journalism” or not, i.e., if AI is writing it sufficiently well, to determine if they need to attempt a rewrite or make edits. They must also be discerning of “which are the facts and which are the opinions”, or if “anything is coloured or looks off or inaccurate”. Participant J echoed this, stating the need to “have an eye out for what might be inherent biases [they] need to check out”.

Relatedly, journalists must enhance their **research and fact-checking skills** to aid them in this discernment. Participant D described this as a “different type of research skill” that involves not just getting the information but “knowing what [questions] to ask, be able to fact-check, and compare different sources”. Participant B similarly discussed the need to “fact-check efficiently and promptly what is true and what is false”, and Participant K said there must be more verifying of information as wariness of falsehoods increases.

Participants also noted the need to improve one’s **stylistic writing skills**, where journalists are better able to insert more “humanness” into their work. Participant A described it this way:

There’s a beauty to writing, things like rhythm and melody. When I write, I might use certain stylistic choices. Like when I break a grammar rule, I might want to keep it, to say something or convey something to the reader. Those things AI don’t really account for because they try to create a very standard conventional level of English that wouldn’t be offensive to anyone. So journalists can insist on things like a signature of their voice [in their writing]; in those moments, the humanness comes through a lot.

Participant D echoed this, stating that “AI can give you a very basic piece of work” but “if you want to take that step further and be really good at your work, you want to have a distinct style and finesse [your writing]”. Agreeing was Participant K, who said “better writing” would be needed in the age of AI, because the journalist’s “voice and writing style tend to get lost if they use ChatGPT to write”; it is therefore essential to hone one’s writing skills to ensure that “their voice comes through”.

Tied to this is what Participant A also discussed as **personal branding skills** that can connect a journalist to their audience, especially on social media. She described this as journalists having a stronger “personal voice” in their stories, such as giving “some behind-the-scenes kind of facts, talk more about their interactions with their interviewees, or people that they feature in the story”, to introduce “a more human aspect to their work that may not come through in the article itself”.

Prompt-writing skills were also discussed in the participants’ responses. They noted the importance of specificity in prompt writing. Participant B said it must be clear in the prompt “what [he is] looking for in the article” so that the “questions asked are not generic”. It is also important to give context in a prompt, so that the AI output would not be too general. Sharing this view was Participant F, who said journalists must be

“precise in their prompt” so the AI tool can “better understand [them] and answer [their] questions”. Participant J also noted this:

In order to use AI in a way that value-adds, we shouldn’t be using it like Google. I’ve seen some AI prompts that are really written very specifically, actually stating what you want it to write—like the tone, the type of language, whether it should be using British or American English, things like that. It’s a bit like crafting a mathematical formula and I think [this skill] probably comes with practice.

Once AI has generated its output, participants said journalists must ensure they have the right **editing skills** to make sure the written work they submit meets the standards they want. Participant L said it is imperative to practice “self-checking and editing of [one’s] own work” and “give it a read-over and make sure everything is okay”; Participant C spoke about the need for the content to “read well and be factually correct” and for the journalist to “exercise full judgment” to conduct this self-check; and Participant B said the journalist should “exercise due diligence and editorial supervision” because even if AI is used to “summarize certain things or come up with certain phrasings”, the journalist is “still responsible for their product no matter what” and must be the “ultimate authors of what [they] do”.

Participant N also discussed editing specifically for sensitive and/or offensive content and misinformation, to ensure “information that is harmful to audiences” does not get spread. Participant D summed this up, noting that “editing is not just the language and the grammar; it’s about that second layer of checks for things like political sensitivity, based on the context that you are in”.

Participants also noted that journalists should be utilizing their **interviewing and interpersonal skills** to add value and relevant content to their work. Participant E summed it up this way:

AI can’t go out and interview people. It can’t convince people to talk to you. It can’t find the right person, like to go out and find the deaf hawker who makes traditional food at a hawker centre. It also can’t show “humanness”; it’s just putting words together in a way that it thinks is appropriate. I think that’s the skill that journalists need—to be better at interviewing, because that involves the human touch. That’s the one thing that AI can’t replicate at this moment.

To create the eventual narrative, participants agreed that journalists must also enhance their **storytelling skills** in the AI age—the ability to “process information and storytell” is what “AI cannot do for you”, according to Participant I, since it involves the journalist going down to the ground, gathering information, and making sense of it. Participant G also said that while AI can spot trends, that would be a “starting point for a story”, but the journalist would need to “use [their] own skills and [their] own knowledge to write a good story”, by interpreting the data and doing the number crunching to find the “story hidden behind the numbers”. Participant A called this the “collaging of information”, where “AI might be one of the sources you look at”, but the journalist needs to “tie things together in a way that is trusted [by the reader] and that reads well and [is written] in an interesting manner that’s going to appeal to the reader”. This, to her, goes beyond just editing; it is more like “a craft of putting things together” to form a good story.

Besides emphasizing the humanness of journalistic work, journalists must also learn to **master the technology**. Several participants discussed the importance of journalists being comfortable with using AI and keeping up with the technology. Participant F said journalists must know “which tools are out there so [they] can make use of those tools”, as well as understand “how one tool is better than another” to perform different functions. Participant K also noted the importance of “knowing whatever new platform is out there” because “the technology keeps coming” and journalists should have “a grasp of its potential”.

Participant N similarly noted that learning AI can “help improve the way that [journalists] do things, especially work that is more tedious”, while Participant H said journalists must “understand exactly what AI model [they] are using because based on which chatbot [they] use, [they] can have different answers”. Participant B agreed, stating the importance of “knowing how to use [AI] effectively, so as to not produce a poorer piece of work than you otherwise would have if you just did it yourself”. This also extends to mastering data journalism, with Participant L noting the importance of “using data to create graphics and more interactive stories”.

On top of that, participants agreed that having the **skills to use AI ethically** would also be crucial. Participant E said journalists must develop a “stronger sense of what is the right thing to do” and to have a “moral sense” to “care about the consequences” and not just to do “stunt journalism to bring in the eyeballs”. She gave the example of asking AI to generate a clickbait headline, just to “grab attention with something shocking”. Participant N added to this, stating that there are “a lot of grey areas relating to AI” and journalists need to learn “what they can do and cannot do with AI in their work”, especially when it comes to sensitive or false information. Ethical use of AI also entails upholding journalistic integrity, which Participant B described as a journalist “not passing off what AI has written as [their] own work”.

One final point noted by the participants with regard to upskilling was the **ability to come up with original ideas**. Participant D pointed out that “AI can give you what is out there, but it cannot provide that innovation or creativity”, and humans are still the ones required to “push the boundaries”. Participant H similarly described it as such:

In general, Large Language Models are terrible at being original. They are mostly better at repeating things that are already there. But good journalism comes from getting insights and trends that people have not noticed before. The originality part is even more important in the AI age—getting people to talk, angling a story in the most exciting way or in a way that appeals to people, and also that sort of deep investigative research.

A point to note would be the participants acknowledging that several of these skills above are already in the toolbox of journalists, and that they need to now pay more attention or focus more on them. Participant K, for instance, stated that fact-checking has always been something she already does on a daily basis and she “does not count it as a new skill”, but it is something she is expecting she will need to do more of. Participant L also noted that editing of one’s written content is not a new skill but must be “practiced more” and be “something [they] will have to get more used to”, especially when journalists become “more reliant on using AI to craft [their] stories”.

Discussion and Conclusion

This paper began with the goal of understanding if AI is causing journalists to deskill, as viewed from the perspective of journalists themselves, and whether they view the need to upskill in certain areas to maintain their relevance and competence in the AI age. In-depth interviews were conducted with 14 journalists and editors based in Singapore, and results are summarized in [Table 2](#).

Evidently from the findings, one sees journalists expressing concerns precisely about AI as “cognitive automation” (Rinta-Kahila et al. [2023](#)), which is able to help journalists offload their cognitive tasks. There are concerns that journalists might be relying on AI to think on their behalf, when they are presenting research nicely gathered to journalists, writing entire drafts for them, doing the analysis for trends or insights for them, writing their interview questions for them, and taking notes and picking out key points for them. Journalists in this study expressed concerns that journalists “don’t get to exercise that muscle of interviewing, writing, and putting together a story” if they are relying too much on AI.

How does this change the way “journalism” is traditionally viewed and what makes a journalist “a journalist” then? Does one’s conception of journalism and its core competencies need to be revised in the AI age? Indeed, several scholars have discussed AI’s profound impact on reconfiguring “(journalistic) roles, (professional) routines, (power) relations, and (news) experiences”, and its increasing integration into journalism as “tools, platforms and systems” (Dodds, Zamith, and Lewis [2025](#), 5).

Speaking to actual news professionals for this study, their responses indicate the continued importance of journalistic skills in writing, researching, interviewing and analysing data to create meaningful stories; the core professional skills of what makes “journalism” remain the same. While they acknowledge that some skills of journalists might be eroding in the AI age, they state that this is *conditional on the journalist’s reliance on AI and decisions they make on how to use the technology*. It may be broken down as such:

If journalists use AI for specific purposes—such as to transcribe interviews or conduct preliminary research to aid efficiency—and understand limitations of the technology while ensuring they are responsible for looking through the final news report before submission, then skills erosion is not as severe a problem. This means that they are not over-reliant on the technology, and view it as a tool, much like what the participants said—where AI acts like a “search engine” or “assistant” to them to streamline some of their

Table 2. Overview of journalistic deskilling/upskilling.

Potential journalistic deskilling	Need for journalistic upskilling
Research skills	Ability to discern
Writing skills	Research and fact-checking skills
Note-taking skills	Stylistic writing skills
Analytical skills	Personal branding skills
Interviewing skills	Prompt-writing skills
Ability to think for themselves	Editing skills
	Interviewing and interpersonal skills
	Storytelling skills
	Mastering the technology
	Skills to use AI ethically
	Ability to come up with original ideas

tasks. In this way, their core skills of conducting interviews, taking notes during them, writing the stories and analyzing the data—all of which require them to think for themselves about how the news narrative should look like—will remain largely intact.

If however, journalists rely on AI on several aspects of their work—such as in research and data analysis as their primary tool of what to focus on in their news stories, or to write their interview questions and entire drafts of their news reports—then skills erosion is a lot more severe and it becomes difficult to ascertain if a person is truly good at their job or not, or whether they can perform at all in the absence of the technology. This becomes a problem for the journalistic profession as a whole, especially given that a core set of competencies and professional knowledge traditionally delineates a journalist from a non-journalist (Örnebring and Mellado 2018; Reyes-de-Cozar, Perez-Escolar, and Navazo-Ostua 2022), and it is these competencies that enable journalism to perform its key functions in society, i.e., to create a well-informed citizenry crucial in a democracy. The erosion of core skills means that more people may be entering the journalistic profession without the right credentials or training that will allow them to put together a meaningful story and offer perspectives and analysis necessary to keep the population properly informed.

In the latter scenario, the result may be an army of amateurs operating an institution that has an important role to play in society, who are unable to see beyond what the AI feeds them, dig deeper into stories, write analytically and in their own voice and think with their own minds. That would be immensely concerning. This relates to what scholars have warned about—using AI to help one think or make decisions can result in lower situational awareness (Oliver, Calvard, and Potočník 2017), with the user favouring the recommendations of the AI tool (Goddard, Roudsari, and Wyatt 2012), paying less attention to the details (Fiol and O'Connor 2003), and gaining less understanding of the situation at hand (Merritt et al. 2019).

Over time, their level of accumulated expertise drops (Carr 2015)—it is then that the concept of a professional journalistic identity becomes threatened. Anyone can be a journalist, even when they are unable to write, conduct research and investigation, analyze data and know the best questions to ask to build meaningful narratives. While some might commend this as a way to democratize the journalistic field, allowing everyone to have a voice and broadcast it—AI can help them come up with instantly publishable stories—but what is lacking is an understanding of the professional values so crucial to journalism as an institution, of ethics, objectivity, balance, fairness, and journalistic rights and responsibilities (Vos 2012).

Indeed, journalism is much more than technical skills; accompanying it is a moral compass that human journalists abide by and which AI cannot replicate. Without this moral compass, journalism as an institution in society, capable of acting as watchdog, informer, educator and mobilizer, would be undermined.

More Tools in the Journalistic Toolbox

The onus is therefore on the journalist to mindfully limit their reliance on AI tools. Granted that they may face organizational constraints such as the need to produce the news quickly, journalists need to “recognize the values that are crucial to their profession” (Wu 2025, 14) and the skills that enable them to imbue those values in their work. Ideally, such “personal motivations” should be complemented by “organizational norms

and structures” that are established in pursuit of good-quality journalism that emphasizes accuracy, transparency, truthfulness, and integrity (Wu 2025, 14); this therefore also requires the presence of an enlightened editorial team and news organization as a whole.

As journalists practice such mindful limitation of AI use, they must, in turn, supplement their competencies with attempts at upskilling. This is where the question of “what makes a journalist” in contemporary times must include more and/or enhanced competencies. Participants in this study referred to these “new” skills in two ways:

Several of these skills participants say they already have, as journalists. These include the ability to do research, fact-check for falsehoods, conduct interviews, tell a meaningful story and edit their work to ensure accuracy and coherence. However, participants in this study were of the view that in the AI age, these skills need to be *enhanced*—because there is a lot more (false) information in circulation, including AI-generated or manipulated texts, images and videos, that they must sieve through and make sense of. They must also do more to show their “humanness”, performing tasks well that AI cannot, such as finding the “right person(s)” to interview and putting together a “good story” that is trustworthy and appealing to the reader. AI at this point is just putting together what it thinks is appropriate and cannot make judgments to meet the standards of journalism that the profession upholds. This aligns with the work of Wu (2024a), who asserted that journalists are still the ones actively pursuing what they believe is “good journalism” even as they work with AI in their day-to-day work.

Several other skills participants say they must now *gain* in the AI age. These are skills that journalists might not currently already have—and this is what is particularly notable—namely, the skills of stylistic writing, personal branding, prompt-writing, mastering the technology, the ethical use of AI, and coming up with original ideas. These are skills that have become necessary as a means to highlight their “humanness” against the machine’s lack of it. This human touch can emerge through the appropriate insertion of their own personal voice in their stories, their ability to direct the machine to perform the tasks that they want or feel are necessary for the story, the morality that they hold to guide the use of AI to perform in ways that are fair and just, and their ability to come up with ideas not just gathered and repeated from “what is out there” but rather to “push the boundaries”, as the participants say, in ways that are exciting and insightful. In this way, the human journalist makes themselves not just distinct from the machine, but also maintains their position of superiority, ensuring that they continue to “hold the reins” across the stages of news production, to instruct, monitor and check on the machine’s tasks and output, as Wu, Tandoc, and Salmon (2018, 1440) would describe.

At the end of the day, the traditional conception of “journalism”—as professional identity, as institution and as practice—remains largely intact amid this drive towards AI, but skillsets must evolve to account for what the technology is able to do. This means that some work tasks will likely be performed by AI in due time—and this should be viewed as a positive, given that they might be able to perform those tasks faster and better than humans—and it is up to the human journalists to leverage on their “humanness” to provide what the AI cannot, i.e., to make sense of information in ways that deliver meaning, relevance and impact to audiences while ensuring they abide by professional values of ethics, objectivity, fairness, balance, and social responsibility, among others.

Indeed, understanding how journalists can adapt their skillsets to match what technology offers can allow journalistic work to remain ethical and trustworthy, journalistic

integrity, identity and self-worth to be kept, and journalism as an institution in society to remain legitimized and resilient.

Limitations of this study must be accounted for here. This study involves using in-depth interviews as a research method; while this allows participants to share their personal views and experiences, they might not be representative of all journalists. Recruitment of the interviewees from Singapore might also limit the representation of views across different contexts. That said, this study offers a foundational understanding of journalistic deskilling and upskilling in the age of AI, which can provide useful information for journalism scholars and practitioners seeking to understand how the field is evolving. For future research, scholars may consider conducting longitudinal studies that examine the evolution of skillsets among journalists over a span of time, to more precisely pinpoint the impact of AI on journalism practice.

Author contributions

CRedit: **Shangyuan Wu**: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing.

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No potential conflict of interest was reported by the author.

Ethical Approval

This research project was approved by the Departmental Ethics Review Committee, National University of Singapore, on 26 January 2024.

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