

Advancing the Community of Inquiry upon Experience (Col-E) Framework in the Age of Generative Artificial Intelligence

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Introduction

In the previous edition of the *AIB Review* ([Edition 10](#)), the authors presented the concept of an Inquiry upon Experience (Col-E) Framework. The paper highlighted a criticism of conventional management education by Henry Mintzberg and suggested promoting management education through real-world experience. Mintzberg proposed a model based on [the five mindsets of a manager](#) as a foundation to achieve this goal. Online management education platforms offer managers the opportunity to share their experiences in live settings while continuing to work. By integrating cognitive, social and teaching presence in online management education, Col-E combines the experiential aspects of management learning with the five mindsets of managers.

The aim of this article is to broaden the scope of our proposed framework by delving into five managerial mindsets that are pertinent, considering new generative artificial intelligence (GenAI) tools. Through insightful contributions from our colleagues at the Australian Institute of Business (AIB) and incorporating fresh perspectives from ongoing academic debates, we have acquired invaluable insights. We aim to integrate these transformative ideas into our existing framework, creating a more comprehensive model. Ultimately, this enhanced framework will better equip us to deliver top-quality management education to our students, who represent the future leaders of organisations.

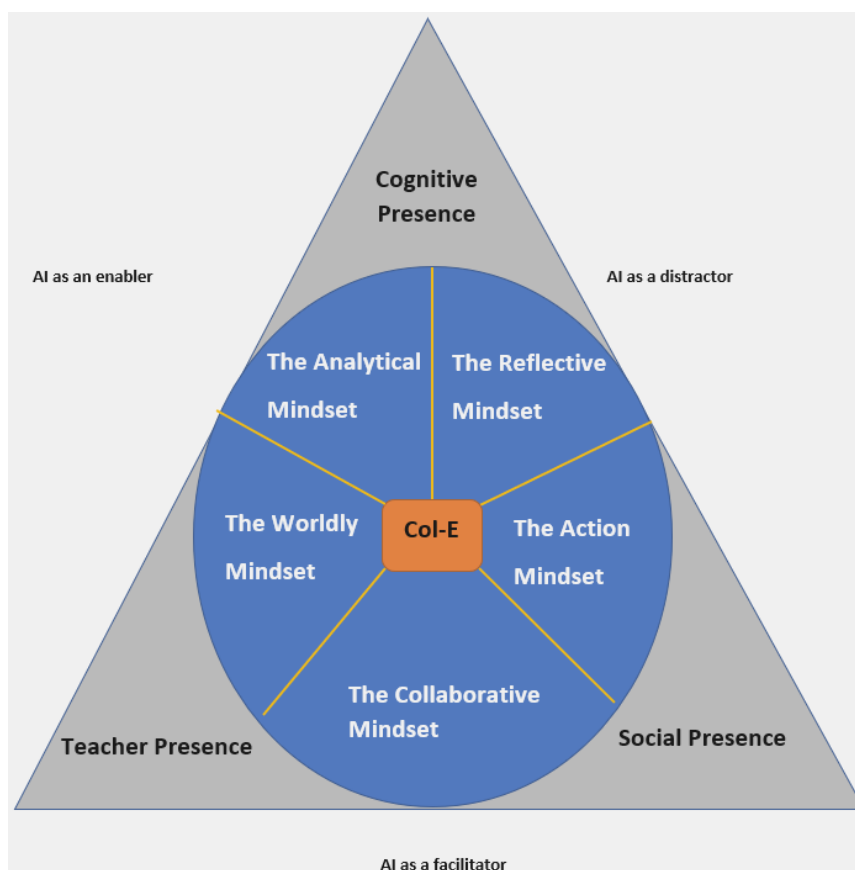
Community of Inquiry upon Experience and GenAI

Artificial intelligence has long been at the forefront of scientific progress, initially enabling automation and computerisation. However, the widespread integration of deep learning, GenAI and language models into everyday general-purpose applications has led to a new era of business management and society. This era is characterised by GenAI-driven smart devices and digital twins that emulate human-like behaviour and augment human work in unprecedented ways. Modern GenAI systems not only exhibit scientific thinking but also possess the capability to learn quickly and create new knowledge. They go beyond simulating human thought processes; they can take actions (albeit with the limitations discussed later in this article), learn from trial and error and adapt to various situations. This transformative capability blurs the boundaries between human and machine activities, with the potential to [enhance most human activities](#), including managerial work and the associated mindsets—this is a theme we delve into in this article.

Let's begin with Mintzberg's famous assertion that management is more of a craft than a science or art ([Mintzberg 2004](#))—a notion that we contend still holds true. If we look into the concept of managerial

work as a 'craft,' characterised by learning on the job through firsthand experience, it becomes evident that GenAI, while influential, cannot replace such work in any significant sense. Managers collaborate with people to achieve purposeful goals, applying theories and concepts in diverse and contextual ways. They typically acquire this knowledge through hands-on experience in real-world settings rather than through the mechanistic application of theories in a classroom, similar to a scientific laboratory. Management work is reliant on human interaction, which is deeply rooted in subjective and intersubjective experiences and emotions. It also depends on the ability to comprehend issues within situational contexts, respond to evolving situations and utilise a combination of intuition, careful analysis, expert judgment and responsible actions - attributes that GenAI finds challenging to replicate fully. Hence, we support Mintzberg's argument that most of the fundamentals of management thinking, including the five managerial mindsets, have remained relatively consistent despite the technological advancements in operational-level work made over the last few decades. Additionally, we assert that in contrast to the commonly held view that emerging GenAI tools could make managerial jobs obsolete, or the sometimes overly optimistic view that GenAI could replace management-related jobs, technological advancements such as automation and GenAI have brought us even closer to the essence of management and underscored the growing importance of a more disciplined approach to management (e.g. five managerial mindsets) in practice.

Figure 1. C the Community of Inquiry upon Experience (Col-E) Framework for Management Education in the Age of Generative Artificial Intelligence.



Source: Created by Chandrasekara & Nair (2023).

Our goal is to further emphasise the increasing importance of the five managerial mindsets and explore how emerging GenAI-related technologies can facilitate these mindsets. However, it's important to note that GenAI-related technologies, have severe limitations in replacing these mindsets in any significant sense. By leveraging GenAI technology, we can enhance our practices in three ways: by using it as a facilitator to simplify execution, by using it as an enabler to strengthen (further enhance) the practice or by avoiding it as a distractor that could hinder efficiency and effectiveness. We will discuss this in more detail below (Figure 1).

Reflective Mindset

The [Reflective mindset](#) is not merely about the reflection of individual actions, but also about deeper reflection on group and organisational-level practices, strategic goals, societal impact, and their alignment. Hence, a significant amount of critical and strategic thinking is necessary to uncover the underlying realities within the depths of organisations. The absence of such discipline can escalate towards catastrophic failures, as exemplified by the incidents at [Theranos](#), where unethical practices and false claims persisted under the guidance of top executives, compromising patient safety. Engaging in deeper reflection on actions embedded in personal, social and political contexts is a uniquely human activity, one that [cannot be replaced by AI tools](#). However, AI tools like big data analytics and GenAI can assist in uncovering the patterns, exceptions and insights hidden within organisational repositories, thereby facilitating such reflective processes.

GenAI-assisted technologies hold the potential to provide feedback both at an individual and organisational level, thereby enabling managers to engage and facilitate a meaningful process of self-reflection. For instance, companies can leverage GenAI-led technology to determine the stress levels of managers by analysing their online interactions and communications. The data generated by the system could be used as input in the self-reflection process to help with stress management and promote managerial excellence. However, it is important to note that AI-generated feedback should not be a substitute for the intuitive and mental self-reflection process. Relying too much on AI-generated feedback may distract a morally and ethically oriented self-reflection that is guided by intuition and emotions. Therefore, it is necessary to balance the benefits of GenAI-powered feedback and the value of human intuition.

Worldly Mindset

The [Worldly mindset](#) is about managing the context, particularly looking at the context from multiple others' perspectives and making wise practical and relevant decisions. Worldly thinking goes beyond conventional thinking in terms of dichotomies such as global versus local and macro versus micro. Furthermore, it transcends the conventional disciplinary boundaries of marketing, finance, operations, human resources and the like. Such practical wisdom comes through years of experience and managerial practice. Failure to adopt a global mindset can lead to catastrophic failures, as exemplified by the downfall of [Nokia](#) - the failure of Nokia is attributed to the neglect of their management team towards the changing business and technology landscapes, as they were more focused on safeguarding their own political views and maintaining an inward-looking approach to the business. Such practical wisdom is unlikely to be replaced by any machine, now or in the future. However, in today's highly complex, uncertain and dynamic world, GenAI tools can assist in understanding local, global and social trends in a fast and real-time manner.

GenAI can help managers gain insights into global and local trends, economic pointers and geopolitical situations. This understanding is crucial in developing and facilitating a worldly mindset. By using tools such as [sentimental analysis and Natural Language Processing](#) (NLP), managers can scan and comprehend local and international news and cultural artifacts, and gain diverse global perspectives that enable a worldly mindset. However, it's important to note that improper data and faulty analysis can lead to biased and inaccurate advice, which can detract from the development of a worldly mindset.

Analytical Mindset

The [Analytical mindset](#) is not solely about systematically analysing and diagnosing a problem but also involves framing the problem and synthesising relevant options. This aspect of problem-solving, particularly in management contexts, is more akin to a craft than a precise science, as argued earlier in this article. Creating a solution for a managerial problem requires the application of significant intuition, emotional intelligence, negotiation skills, consensus-building and responsible judgment. However, the rational analysis component of this process is where modern data analytics and GenAI tools can provide substantial support. Recent advancements in deep learning algorithms and large language models hold promising potential for enhancing this aspect of managerial decision-making.

Advanced GenAI technologies can greatly enhance the development of an analytical mindset. Predictive analytical tools empower managers to make better decisions by enabling them to predict sales, profits and competitors' actions. This technology facilitates seamless and productive managerial actions. However, over-reliance on predictive analytical tools can be misleading and detrimental, especially when inaccurate or misleading data is provided. Such tools should be used as a complementary decision-making aid rather than the sole source of information. As demonstrated by [Cathy O'Neil](#) in her book "Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy," the GenAI models used today are opaque, unregulated and often incorrect.

Collaborative Mindset

[Collaboration](#) in managerial work entails more than just communication and task delegation; it involves working with others, specifically by actively listening to their input and fostering relationships at various levels, including intra-firm, inter-firm, national and societal scales. Catastrophic failures can occur when senior managers and leaders prioritise personal or politically favoured interests over heeding the insights and expertise of their team members who possess critical knowledge about ground realities and technical details. A notable example of this was seen in the [failures of Boeing 737 Max aircraft](#), where leadership disregarded the recommendations of expert team members regarding safety systems that could have potentially reduced risks leading to two fatal crashes. Such collaboration is essentially a human activity driven by a shared understanding of tasks and goals that cannot be replaced by machines. Yet, GenAI tools can significantly contribute to better facilitating collaboration within local, remote and global settings. Recent advancements in technologies, such as augmented/virtual reality, cloud computing and blockchain, have augmented information communication and sharing capabilities in a highly secure manner.

The advent of GenAI-powered communication tools facilitates a promising opportunity to elevate team collaboration seamlessly, particularly in today's shifting landscape towards remote work. With

sophisticated analytical capabilities, managers can gain valuable insights into communication patterns, feedback loops and collaborative metrics, ultimately improving team dynamics, which would enable effective teamwork. Nevertheless, it's important to remember that technology should never undermine the importance of genuine human connection, which is fundamental to building trust, mutual respect and successful collaboration. Thus, excessive dependence on GenAI-based technology may distract the collaborative mindset of managers.

Action Mindset

This refers to the essential drive within managers to take actions, implement solutions and bring about changes within organisations to deliver better results. Such actions involve consideration of a myriad of implementation challenges situated within each unique workplace setting; hence, managers need to build a sense of purpose, negotiate and manage ongoing change, and sustain the changes in the long term to be successful. Although GenAI is far from being able to take action, considering such diverse considerations and nuances embedded in particular workplace settings, GenAI can help track task progress, point out deviations and evaluate the performance of such actions, subsequently assisting in more effective management decisions. Automated workflow monitoring software, augmented technologies and predictive and prescriptive analytics can have greater support for the successful implementation of changes.

GenAI offers a powerful tool for managers to analyse data, simulate scenarios and facilitate informed decisions and actions. Leveraging the capabilities of GenAI will enable managers to develop effective strategies and execute them with confidence. However, it is important to exercise caution when relying solely on GenAI predictions, as the real world is full of unpredictability that GenAI may not account for, which would distract the action mindset of managers. By combining the insights provided by GenAI with real-world experience and judgement, managers can make informed decisions that lead to successful outcomes.

Conclusion

From the preceding discussion, it can be inferred that while GenAI has the potential to assist with some aspects of the five managerial mindsets identified by [Mintzberg & Gosling \(2003\)](#), it cannot fully replace the need for these skills in managers. The interconnectedness of these mindsets means they cannot operate independently, presenting a significant challenge for GenAI technology to enhance it, let alone replace it. However, GenAI can be a useful tool for aiding management thinking, mindsets and action.



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