

Hey! What's New? 2025-46

How Accountants Can Balance Technology and Critical Thinking

Kelly L. Williams and Sandra S. Benson write, in the latest issue of the *Journal of Accountancy*, that “at a time when automation and artificial intelligence (AI) are rapidly transforming the accounting landscape, critical thinking remains a uniquely human skill that machines cannot replicate. Critical thinking is the cornerstone of sound judgment and decision-making, enabling accountants to navigate through uncertainties and complexities that arise in their profession.”

But, they add, failing to exercise critical thinking when working with AI could become a problem among practitioners because:

- Generative AI is known to make up facts, a phenomenon known as hallucinating. “Generative AI users may assume the response is accurate and reliable with no need for further verification.”
- Williams and Benson note that using AI-driven tools in auditing can increase efficiency, accuracy and adaptability, but integrating legacy systems with AI technologies may require substantial investments in system upgrades. “Also, without appropriate safeguards, security, confidentiality and privacy concerns arise.”
- Technical and human biases pose risks with the use of AI in auditing, they say, “including data deficiencies in the training data and training the models on a limited population (demographic homogeneity), spurious correlations, improper comparators, and skewed assumptions by the designers embedded in the system (cognitive biases).”
- They also note that “AI’s complex algorithms may lack transparency and be difficult to understand, especially as the algorithms evolve over time. “This raises not only ethical concerns but also practical concerns for auditors. If an auditor relies on AI’s output, this poses a trust problem if the auditor cannot explain reasons for their decisions.” Other ethical issues to consider are “whether reliance on AI over time will desensitize the auditor from their own instincts or whether less experienced users will overly rely on AI due to lack of experience to evaluate the results from AI.

According to Williams and Benson, “by integrating technology and critical thinking, accountants can enhance their efficiency, accuracy, and strategic decision-making capabilities — paving the way to success in this digital age.” But to get there, they have to:

Develop the Right Mindset. “Understand that while technology offers ways to work faster and more accurately, it still relies on human thinking to interpret information, analyze it and make informed decisions. This involves questioning assumptions, evaluating evidence, identifying potential biases and considering alternative perspectives.”

Use Technology and a Critical Thinking Framework to Improve Critical Thinking Skills. “Take advantage of various technological tools to enhance your critical thinking skills in accounting tasks. Use the tools to help streamline processes and tasks, thus giving you more time and mental space for strategic thought processes. Accounting software, such as QuickBooks or Xero can automate repetitive tasks, giving you more time for strategic decision-making. Data analytics tools such as Power BI or Tableau enable you to quickly analyze large amounts of data, leading to deeper insights and better decisions.”

Immerse in Real-Time Scenarios. “Develop familiarity with real-time financial applications that can provide case scenarios that test and enhance your critical thinking abilities. They simulate real-world situations where you are required to analyze and make decisions based on the available financial data.”

Incorporate visualization techniques. “Practice designing your process to obtain reliable and verifiable results. There’s a wealth of financial information at your fingertips, but it won’t mean much without the ability to analyze and visualize it effectively. Incorporating data analysis and visualization techniques into your work process should be regular practice.”

The accounting world is changing rapidly due to technological advances, the authors say. “Accountants are at the forefront of this change. Combining critical thinking and technology doesn’t just improve your work, it completely transforms how financial information is examined, understood, and shared.”

For a whole lot more, have a look at [How accountants can balance technology and critical thinking](#).