

by Fred Lenhoff

n the age of artificial intelligence (AI), technological aids promise efficiency, insight, and innovation. Notably, common AI tools include ChatGPT, Gemini, and Microsoft Pilot, which use natural language processing to generate intelligent—and intelligible—responses to queries and help users draft everything from medical reports to texts.

But when do AI tools become not an aid to learning but a way for students (or professionals) to cheat? Do they undercut the challenges and gains of true education with a facile, superficial "knowledge?" Does AI undercut the core of education: "meaningful engagement that joins critical thinking to engender authentic intellectual growth?" As any web search quickly uncovers, AI is still "learning," so the accuracy of information and citations can be suspect.

AI in the allied health curriculum raises questions about ethics in teaching, learning, and practice. These concerns become particularly critical in medical assisting—where professional communication, ethics, and empathy are foundational. As AI continues to transform health care, educators are

asking: "How do we prepare students to work not only with AI but also wisely and ethically with AI?"

"At the end of the day, AI can never replace the care, compassion, and human connection that medical assistants bring to the table. But it is reshaping how we do our jobs," says Melody P. Gibson, BS, CMA (AAMA), CPT(ASPT), a program director of medical assisting and phlebotomy at Gaston College in Dallas, North Carolina. Students, she argues, need to become confident and comfortable navigating AI—not overwhelmed or left behind. The educator's job is to enhance medical assisting education to ensure that new technologies like AI are included in the curriculum.

The Future Is Now

AI is no longer the distant future—it is embedded in the tools, platforms, and workflows that health professionals use every day. From electronic health record (EHR) systems to software that manages billing, coding, referrals, and patient scheduling, AI is rapidly becoming part of the clinical infrastructure.

"If we don't get on board, we're going to get left behind," says Toni Coffman, CMA (AAMA), assistant professor of medical assisting at Santa Fe Community College in New Mexico. Indeed, increasing numbers of hiring managers and physicians are seeking AI skills among new hires.

Syncing Up

More and more medical assisting educators have begun integrating AI into the class-room. Jessica Blessinger, CMA (AAMA), CTTS, clinical lead preceptor and tobacco treatment specialist at Hancock Health in Greenfield, Indiana, emphasizes the value of AI for simulation-based learning. "It could give students an opportunity to have simulated experiences that are closer to real-world scenarios," she explains. "It will also allow for real-time feedback for both the educator and instructor."

Similarly, Karen Renee' McIntyre-Pearson, MHA-Ed, a PhD candidate and medical clinical assistant educator at Miller-Motte College in Wilmington, North Carolina, adds that AI can support diagnostic training and clinical proficiency by enhancing curriculum design and helping students engage with more complex medical scenarios, including issues on patients'

privacy and data information.

Other potential pedagogical paths for incorporating AI literacy into the curriculum include the following:

- An introduction to the basics of generative AI, chatbots, and their applications in health care
- Analyses of AI applications and reallife testing and evaluation of their usefulness and reliability
- Interactive exercises using AI to aid learning by creating personalized study plans or brainstorming projects
- Simulated AI patient scenarios to support communication training based on mock clinical situations, triage exercises, and EHR documen-
- Projects using chatbots to build outlines or presentations—with the caveat that students must verify accuracy and cross-reference sources
- Exploration of AI ethics with regard to bias, equity, regulatory compliance, misinformation, and professional responsibility—often in partnership with experts from other academic departments (information technology, for example) as well as medical ethicists, legal experts, and campus librarians

Moreover, new educational models emphasize the need to treat students as collaborators in educational transformation. Including their voices can ensure that AI education is relevant, reciprocal, and respectful.2

Tech with a Byte

AI should be used as a tool for learning rather than the avoiding of learning. Indeed, some prefer the term "augmented" versus "artificial" intelligence to underscore the tool-like nature of AI and the need for human control for appropriate use.3

Although Coffman admits she might be optimistic, she believes that most students if shown trust and respect—will not use AI for unethical ends. "In health care, you can't cheat," she says. At the institution level, a new school policy allows educators at her

Trust the Process(or)?

Machine-intermediated communication may be as momentous as the move from oratory to written communication millennia ago. But today's societal transformation in information sharing and dissemination is happening over months and years, not decades or centuries.

The spread of Al is, therefore, not merely a technical challenge—it is a cultural, ethical, and cognitive transformation for society at large.

For these reasons, educators must teach AI not as a shortcut but as a tool for deeper engagement, critical thinking, and professional excellence. For the medical assisting profession, the future belongs not to AI but rather to those who can use it with care, competence, and compassion.

school to tailor AI use (zero, moderate, or full use) to their educational objectives and teaching style. Most educators are choosing the zero option—most likely, she thinks, due to fear, skepticism, and lack of understanding. That said, the appropriate use of AI can make students' and teachers' lives easier. For example, Coffman recently used ChatGPT to revamp outdated lesson plans.

Amanda Sturgill, PhD, an associate professor of journalism at Elon University in North Carolina who researches the intersection of AI and engaged learning, warns that overreliance on AI risks reducing education to mere performance, where students comply with tasks rather than engage in genuine inquiry.4

Erik Winero, an educator and researcher, explains that the central issue is deeper than technology—rather, it is our perspective on education and its value (e.g., the focus on achieving a goal, such as a good grade, as a valid reflection of learning).5

Winero uses the sport of pole vaulting as a metaphor for a technological enhancement that radically changes the game. The development of flexible poles to replace wood made reaching previously unimaginable heights possible. "If generative AI can be used as a flexible pole to help our students overcome even higher obstacles, then surely that's a good thing," he says.6

Or is it? Technical enhancements can create the illusion of learning, authenticity, and authority. Winero argues that learning is an individual and individualized struggle and can and should be challenging, complicated, and sometimes confounding. In other words, no resistance, no learning. AI is like learning—you only get out what you put in.6

This underscores the need for educators to teach not only AI tools but AI judgment:

- When and how to use AI ethically
- How to verify output, sources, and accuracy
- How to balance AI use with professional standards

In health care, where the stakes are high and misinformation can cause real harm to patients, these skills are indispensable. •

For additional information and resources on AI, email FLenhoff@aama-ntl.org with "AI" in the subject line.

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