

EDITORIAL

Technology and Artificial Intelligence (AI) in Nursing



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This edition of the ANA-Ohio News Journal focuses on technology, including the use of artificial intelligence (AI) in nursing. Throughout the journal, you will find articles addressing considerations when developing strategies to implement AI into nursing practice. In addition to the AI content, there are articles on the impact of the ANA-Ohio Policy Bootcamp on participants, a report of the ANA Membership Assembly meeting, and a feature highlighting insights from second degree nursing graduates.

The publication deadline for this edition was prior to the ANA-Ohio Annual Conference, which took place on Friday, September 19 and Saturday, September 20, 2025, in Dublin, Ohio. Consequently, a full report of that event will be in the February 2026 issue of the ANA-Ohio News Journal. The annual conference recognized and celebrated nursing contributions through creativity, change, and opportunity, with the end goals of improving population outcomes and enhancing the profession of nursing. Events on Friday evening comprised a reception with a keynote speaker. Saturday's activities included an annual business meeting, a poster session, and a series of professional development sessions. Topics included voting, evidence-based care, writing for publication, and implementing Code Lavender for support staff.

Technology and AI

The May 2025 issue of *OJIN: The Online Journal of Issues in Nursing*, which is free to all American Nurses Association (ANA) members, focused on artificial intelligence (AI) in nursing and healthcare. This edito-

rial will summarize some of the literature surrounding issues and applications using AI. According to Wieben (2025), AI is neither good nor bad but rather has significant potential to help tackle problems in healthcare if designed and implemented thoughtfully and with care. The Wieben reference supports the idea that AI has potential in healthcare, while the von Gerich and colleagues (2022) reference highlights that nurses are missing from AI involvement. In a scoping review of 93 studies on AI-based technologies, von Gerich et al. (2022) examined the characteristics, descriptions, and the methods used to validate technologies in healthcare, concluding that one-third of the studies were reported as lacking nursing involvement in the implementation of AI. The authors concluded that collaboration among nurses, nurse informaticists, and nurse researchers on all phases of the technology development process could enhance research efforts. The need for developing mutually endorsed guidelines for AI in nursing research was emphasized (von Gerich et al., 2022). The researchers concluded that to ensure preparedness for this new reality, education on nurse informatics is critical for all nurse professionals and students and that basic knowledge of AI-based technologies should be incorporated for all nurses.

Current Applications of AI in Nursing

Integrating AI into nursing and healthcare has the potential to transform nursing practice. Nurses can use the capabilities of AI to enhance patient outcomes by automating routine tasks and streamlining

documentation (Brydges, 2025; Shepherd & McCarthy, 2025). AI applications encompass enhancing clinical decision support, managing medication administration and errors, optimizing workflow, educating patients, predicting patient deterioration, and personalizing patient care plans. By incorporating the judicious use of AI into clinical decision-making, providers can facilitate early interventions, improve health literacy and patient engagement, and create more time for direct patient care. It can also enhance documentation accuracy, improve workload distribution, and reduce burnout. These tools can enhance patient safety by ensuring critical cases receive immediate attention (Brydges, 2025).

Integrating AI applications into nursing practice presents many challenges. As AI systems assume tasks typically performed by nurses, concerns arise about the diminishment of the nursing role and implications for patient care. Delegating responsibilities to AI systems creates moral and accountability concerns and potentially can perpetuate existing biases within the healthcare system. Some populations, such as minorities, disabled individuals and those in rural communities are frequently underrepresented in the datasets used to train AI models, which can lead to biased recommendations for care (Dillard-Wight & Smith, 2025). A strong infrastructure is required to support a seamless data exchange. The ability of AI algorithms to analyze vast amounts of patient data and suggest interventions could diminish the role of nurses, potentially causing nurses to rely excessively on AI recommendations

and undermining their clinical judgment and critical thinking skills (Brydges, 2025; Arcega et al, 2020). Accuracy of AI-generated information is also a challenge (Borger et al., 2023; Brydges, 2025; Shepherd & McCarthy, 2025)

Education of nurses is essential for the appropriate use of AI. Brydges (2025) advocated for structured training to incorporate AI into nursing practice. Adapting to new skill requirements involves nurses embracing technology and data literacy to deliver high-quality patient care. Developing competencies both in nursing curricula and ongoing professional development programs is critical. Nurses should be involved in the early development of AI technologies and need to take an active role in policy development to support integration of AI tools into nursing practice.

Importance of Human Touch

Human touch and interaction remain an important aspect of the art of nursing. A literature review was conducted to explore whether technology decreased the value of humanity in patient care. Twelve articles were summarized, addressing the impact of technology on patient care (Arcega et al., 2020). These studies stressed the importance of interaction and nonverbal communication to demonstrate concern for the patient and establish reliability during direct interactions with patients. Incorporating technology into nursing practice is likely to continue improving patient care. As other authors (Brydges, 2025; Dillard-Wright & Smith, 2025 ; Shepherd & McCarthy, 2025) noted, Arcega et al. (2020) stressed the need for education to increase technological literacy and competency. Nurses need to be involved at the forefront of technology's implementation to ensure patient-centered care. Technology is a tool, and human touch remains superior in providing positive experiences for patients (Arcega et al., 2020).

Implications in Research and Education

Borger and colleagues (2023) explored the capabilities and implications of using

ChatGPT and other AI-assisted technologies in scientific research and education. Chat GPT can be used to assist with writing and reading grants and papers, but an expert human author needs to fact-check the information. Having students use Chat GPT for thesis writing may be acceptable with the same safeguards and cross-checking of information. Supervisors and educators should acknowledge that students will learn the same writing and editing skills as they traditionally have, just in a different way. Tools such as Chat GPT can support scientists in analyzing datasets and assist with complex image analysis. Chat GPT can have real-world applications in scientific research, but effectiveness should be tempered with the user's expertise (Borger et al., 2023).

Themes from this study included implications, challenges, future developments, and exploration of ethical, legal, and social implications. Questions remain about proprietary use, personal data, copyright issues, and potential misuse by malicious parties, and are beyond the scope of this article. Borger and colleagues encouraged users to consider how to best leverage AI to produce the highest quality science and concluded that AI should be leveraged to produce high-quality science and outstanding scientists. "Considering this, in incorporating AI into routine science, the primary question for each scientist to subjectively consider where they can leverage the increased productivity that AI provides without compromising or, best of all, while enhancing their abilities and accelerating their development." (Borger et al., 2023, p. 933).

Advancing nursing practice with AI applications

Various criteria need to be considered to successfully implement AI into nursing practice. Nurses must be actively engaged in the design and application of AI systems to ensure they add value and do not impede the work. Preserving nursing

autonomy, decision-making, and the human aspect of care, as well as addressing privacy, data security, and bias issues is important (Shepherd & McCarthy, 2025). By broadening the technological environment, the practice of nursing extends beyond physical spaces to include digital, virtual, and data spaces. These systems can help nurses to assess and act upon risks in a timely manner. Education is needed to prepare nurses to use AI safely and nurses must be aware of the ethical and social implications of AI in nursing. The authors included a table comparing effective versus problematic AI implementation in nursing practice with clinical decision support, workflow integration, patient monitoring, education and training, data management, and patient engagement (Shepherd & McCarthy, 2025). Examples in each category were provided of what happens when AI is done right and what happens when AI is done wrong. Nurses must help shape AI implementation to enhance patient care.

Dillard-Wright and Smith (2025) outlined ethical concerns with AI in nursing at the macro-, meso-, and micro-levels. They concluded that there are several key enablers that can facilitate ethical integration in nursing practice. These include:

- Participatory AI Design
- AI Literacy and Critical Training
- Transparent Decision-Making Frameworks
- Time and Resources for Ethical Reflection

Nurses have a collective responsibility to re-imagine and then build AI for equitable and relational care. As nurses, we need to be informed about the potential for both use and misuse of AI applications in our practice. ■

References online:
myamericannurse.com/?p=421813