How Nursing Leaders are Adopting Artificial Intelligence

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Artificial intelligence (AI) in healthcare is at full throttle, and nursing leaders are in gear and maintaining speed. Healthcare leaders have integrated AI into medical imaging by 21%, and 13% use AI in virtual health assistance (Stempniak, 2024). Integrating AI into healthcare industries can improve nursing workforce planning, reduce nurse workload, and increase access to care.

Machine learning is a branch of AI that trains the computer to learn from available problem-solving data by using algorithms to discover patterns and perform specific tasks to make decisions. (Ahmad, 2024; Janiesch, 2021). Deep learning is a subset of machine learning that uses artificial neural networks, is a set of algorithms to solve real-world scenarios, and can make decisions that outperform the human brain (Ahmad, 2024; Janiesch, 2021). Natural language processing allows computers to understand, process, and manipulate human languages by interpreting semantic meaning, translating between languages, or recognizing patterns in human languages (National Library of Medicine, 2022).

In workforce planning, predictive analytics are algorithm-based tools called Applicant Tracking Systems that help predict future workforce demand, identify future leaders, enhance promotions, and decrease employee turnover by analyzing resumes, estimating vacancy fills, and streamlining the recruitment process (Cho, Choi, & Choi, 2023; Vas, 2023). In addition, organizations use job board channels such as LinkedIn profiles and analyze artificial intelligence interviews and chatbots. These tools evaluate the applicant's behavior, content of responses, facial expressions, and truthfulness (Cho, Choi, Choi, 2023). It can also help employee retention by identifying employees at risk for resigning and which skills retain high potential employees.

Nursing leaders advocate for clinical documentation solutions with AI-powered digital assistant tools to create efficient workflows. AI clinical documentation applications use voice recognition and transcription of clinical speech into a structured document in real time by applying natural language processing. The tool generates a summary of the conversation between a provider and a patient using AI. This innovative approach is designed to merge existing electronic health records into streamlined nursing workflows. Using AI clinical documentation is efficient and results in reducing nursing workload.

Telehealth and remote patient monitoring technology monitor patients, improve access to healthcare, and improve work productivity. Advancements in technology have provided wearable devices and sensors equipped with AI for hospital-at-home programs to collect data and recognize patterns to help providers intervene in real time. Furthermore, computer vision with virtual teams is helping decrease the workload of bedside nurses. Computer vision is focused on allowing computers to process and analyze images and video to identify objects and track movements in a way that mimics human vision (AI-PRO, 2024). Hospitals are using virtual care platform telesitter technology to monitor patients who are at risk of injury.

In conclusion, nursing leaders must be proactive and adopt the economic value of AI. By adopting these cutting-edge AI-powered tools and technology, nursing leaders can remain competitive, make real-time decisions, improve patient and staff experience, and reduce costs. Ultimately, this will allow the existing bedside nursing workforce to spend more time with their patients. ■

References online:
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Motions & Attendance September 24, 2024

NJSNA BOD Meeting

Motions

Motion #1 – Approve Minutes
Terri Ivory, Linda Corigliano, second
Approved by unanimous consent

Motion #2 – Appointment to External Committee & Organizations Policy From Committee
Approved by unanimous consent

Motion #3 – Approve Consent Agenda/Dashboard
Denise Nash-Luckenbach, Kristin Sagedy, second Approved unanimous consent

Motion #4 – Adopt new Code of Conduct
Linda Corigliano, Denise Nash-Luckenbach, second
Approved by unanimous consent

Motion #5 – Remove member from a committee Jackie Owens, Denise Nash-Luckenbach, second
Approved by unanimous consent