How Does Artificial Intelligence Compare to Augmented Intelligence?

Both artificial intelligence and augmented intelligence share the same goal but have different approaches to achieve it.

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By Erin McNemar, MPA

September 24, 2021 - As providers strive to improve patient outcomes, the use of machine learning has become more integrated into the healthcare system. As this new form of technology continues to expand, it's important to understand how it can be used and how it differs from augmented intelligence.

While the phrases artificial intelligence and augmented intelligence are often used interchangeably in healthcare, defining both terms creates specific usages for the **machine learning** systems in the industry. Artificial intelligence and augmented intelligence share the same objective but have differing procedures in accomplishing it.

Although both techniques use machine learning capabilities, artificial intelligence takes a full device approach, while augmented intelligence maintains the human aspect.

COMPARING ARTIFICIAL AND AUGMENTED INTELLIGENCE

Especially in recent years, the healthcare industry has done extensive research on how to use artificial intelligence to improve **patient outcomes**. However, augmented intelligence options have been less explored.

Augmented intelligence is like artificial intelligence in the way they both use machine learning to enhance **care quality**. However, instead of replacing human intelligence, **augmented intelligence** works to build upon it.

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While artificial intelligence and augmented intelligence both have a shared goal of improving a patient's quality of care and outcomes, these machine learning techniques have different methods to achieve the desired results.

AUGMENTED INTELLIGENCE IN HEALTHCARE

Augmented intelligence, also known as intelligence amplification, cognitive augmentation, decision support, machine augmented intelligence, and enhanced intelligence, plays a similar role as artificial intelligence. However, augmented intelligence keeps human intelligence elements in its procedure.

Rather than performing the assignment for a physician like in the case of artificial intelligence, augmented intelligence acts as a tool to assist the physician in the task.

Augmented intelligence can be particularly helpful in the field of medical imaging. According to a HIMSS **whitepaper** by AGFA Healthcare, augmented intelligence can improve workflows, assist in speeding up the diagnosis process, and pave the way for **personalized medicine**.

"In my group, we've already demonstrated that an AI [augmented intelligence] system for chest x-ray triaging and prioritization can lead to much faster reporting turn around time. We've also shown potential diagnostic benefits in early detection of lung cancer," Professor of Data Science

at Warwick University, Giovanni Montana, said in the whitepaper.

While augmented intelligence allows for a collaborative approach between machines and physicians, it doesn't lighten the load for physicians as much as **artificial intelligence**. Rather than having to sort through **electronic health records** or large data sets, physicians can just focus on delivering quality care to their patients. Rather, augmented intelligence should work with clinicians to provide the best quality of care for the patient.

ARTIFICIAL INTELLIGENCE IN HEALTHCARE

Artificial intelligence has transformed the healthcare industry and how patients receive care. By analyzing large data sets, providers can quickly pull information to deliver the best possible care to their patients.

Data will often be scatted across different systems, causing an issue in **data management**. Artificial intelligence technology sorts through data, improving accessibility and efficiency.

Recently, Health Center Partners (HCP) launched a collaborative effort with Arcadia to better manage data and address **health disparities**. Arcadia assisted in the creation of a master patient index to detect potential gaps in care.

 "You can see which patients have true quality gaps, and that's where we would act on that data, and healthcare providers would reach out and make sure that the patient has all of their quality measure interventions and gaps closed," Sarah Cho, vice president of clinical transformation and health informatics for Integrated Health Partners, a subsidiary of HCP told *HealthITAnalytics*.

With the master patient index, the tool can take all patient data and put it into a shared data asset that is used across all of HCP's member health centers. According to Amanda Simmons, executive vice president for Integrated Health Partners, this creates a "no wrong door policy."

Patients have access to 81 clinical sites through the network and will not get turned away if they go to a center that's not their primary care provider. Arcadia then gives the network the tool to see longitudinal records and the patient's activity across all the health centers.

While **artificial intelligence** has proven to create positive outcomes in the health realm, some argue that artificial intelligence relies too much on the machine's ability to assess data and

provide treatment plans. Because of the sensitivity of the healthcare industry, **human intelligence** cannot be replaced, some skeptics say.

While artificial intelligence and augmented intelligence offer different solutions to improve patient outcomes, both are effective methods in enhancing the quality of care and creating a more technology-based healthcare system.

Tagged   Artificial Intelligence   Care Disparities   Data Quality   EHR Analytics   Machine Learning
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