

LETTER OF THE DAY

AI started in the 1940s: We must prepare for what comes next

Attending the Kenya Health Security Convention in Mombasa, I realised many health workers hear about Artificial Intelligence (AI), but very few truly understand where it came from, how it evolved, and what it means for Africa's health systems.

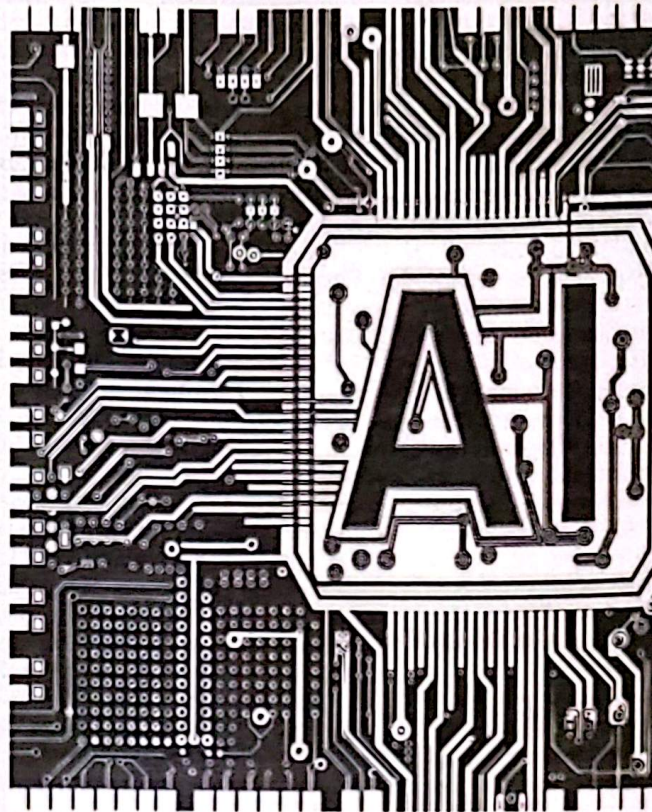
In many discussions, AI was presented as something new, complex, and mysterious. Many health professionals still do not fully understand its potential to strengthen healthcare delivery, improve surveillance, support decision-making, and enhance public health response. Yet this understanding is critical because AI is not new.

AI started in the 1940s, long before ChatGPT. The foundations of AI began in 1943 when scientists Warren McCulloch and Walter Pitts developed the concept of an artificial neuron, inspired by how the human brain processes information. This later became the foundation of modern neural networks and deep learning systems.

The term "Artificial Intelligence" was officially introduced in 1956 during the Dartmouth Conference in the United States, where researchers explored whether machines could simulate human reasoning and learning.

Since then, AI has evolved through decades of experimentation, setbacks, breakthroughs, and innovation.

Timeline: The Evolution of AI
 1943 – Warren McCulloch and Walter Pitts develop the first artificial neuron, laying the foundation for neural networks.
 1956 – The term "Artificial Intelligence" is officially introduced at the Dartmouth Conference.
 1957 – Frank Rosenblatt develops the Perceptron, an ear-



ly machine-learning system capable of pattern recognition.
 1969 – Limitations in early neural networks lead to the first "AI winter."
 1980s – The rediscovery of backpropagation enables deep neural networks to learn more effectively.
 1990s – AI expands into speech recognition, expert systems, and data analysis.
 2012 – AlexNet revolutionises image recognition using deep learning, accelerating modern AI development.
 2016 – AlphaGo defeats world Go champion Lee Sedol, demonstrating advanced AI decision-making.
 2017 – Google introduces the Transformer architecture, which later powers modern language AI systems.

2018–2020 – GPT and large language models emerge, significantly improving language understanding.
 2022 – ChatGPT launches publicly, bringing AI into mainstream awareness.
 2023–2025 – AI evolves into multi-modal and reasoning systems capable of processing text, images, audio, and video. The release of ChatGPT in 2022 simply brought AI into mainstream public awareness. But AI had already been evolving for nearly 80 years.

For Africa's health workforce, this matters.

Africa continues to face major public health challenges, including disease outbreaks, workforce shortages, weak surveillance systems, misinformation, and unequal access to health-

care. AI presents an opportunity to strengthen these systems, not by replacing health workers, but by supporting them.

AI can help analyse outbreak trends faster, improve disease surveillance, support training for frontline workers, strengthen health communication, and improve decision-making during emergencies.

Organisations such as the African Field Epidemiology Network and Field Epidemiology Training Programs across Africa already generate large amounts of public health data that could support smarter surveillance and response systems.

However, Africa risks being left behind if health workers do not understand AI and actively participate in shaping how it is used.

The real danger is not AI itself. The real danger is exclusion.

Most AI systems are still developed outside Africa, using datasets and languages that may not fully reflect African realities. This means Africa must invest in digital literacy, ethical AI governance, local datasets, and workforce preparedness.

AI will not replace health workers. But health workers who understand AI may transform healthcare delivery across the continent.

The conversation on AI in Africa should, therefore, move away from fear and myths. Instead, it should focus on preparedness, innovation, and how African health professionals can use AI to strengthen health systems and improve public health outcomes.

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