'Relying on AI for medical advice carries serious risks'

Possibility of errors grows with complexity of queries, model used, phrasing: Educator

BY **KIRTINEE RAMESH**
newsdesk@thesundaily.com

Ainuddin warned against using AI for self-diagnosis or treatment as misinterpretation may cause unnecessary anxiety or a false sense of security, delaying proper medical attention. – ***ADIB RAWI YAHYA/THE SUN***

PETALING JAYA: Artificial intelligence (AI) is increasingly being used by the public for health advice but experts say it cannot replace doctors and carries serious risks if relied on blindly.

Universiti Malaya Computer Systems and Technology Department Prof Dr Ainuddin Wahid Abdul Wahab said AI tools, such as ChatGPT, are fundamentally limited because they rely on statistical patterns rather than genuine clinical understanding.

"AI is essentially a language tool, not a doctor. It predicts which words should come next based on patterns in the data. This means it could sound confident even when it is wrong," he said.

Unlike human doctors, AI cannot examine patients or interpret subtle signs, such as skin tone, breathing patterns or other non-verbal cues.

"It is like using a highly advanced dictionary to interpret a poem. AI can define every word but it may miss the deeper meaning, in this case, the actual health condition."

He said AI could produce plausible-sounding but inaccurate medical information.

"The system is designed to be helpful and conversational, not strictly factual. It is similar to asking a very good writer to fix a car engine. The words may sound right, but without hands-on checks, mistakes are easy and potentially dangerous."

The risk of errors grows with the complexity of medical queries, the model used and how questions are phrased.

"While AI could reliably explain general medical concepts, it may mislead in complicated cases. Errors usually stem from biased or incomplete training data.

"If the data lacks information on certain demographics or rare conditions, the AI's advice may not apply to every patient."

Ainuddin said without human oversight, such gaps could lead to harmful or even fatal conclusions.

Ethical concerns also arise when AI provides medical guidance directly to the public, he added.

Safety is a major issue because chatbots may fail to recognise emergencies or serious conditions, delaying critical care.

Accountability is also unclear.

"If AI advice causes harm, it is uncertain whether responsibility falls on the user, the developer or the platform."

Data privacy and fairness are also at stake.

He said patients may share sensitive information without knowing how it is used and AI could unintentionally provide lower-quality guidance to certain groups because of biases in its training data.

"It is like replacing a physical courtroom with an automated system. The speed and accessibility may improve, but without human judgement, fairness and safety are compromised," he added.

Ainuddin stressed that certain aspects of healthcare must remain in human hands.

"Tasks requiring complex judgement, emotional support and physical intervention, such as surgery or delivering difficult news, cannot be delegated to AI."

Humans can understand a patient's context, values and needs in a way AI cannot replicate.

However, AI could serve as a powerful support tool as it excels at processing large volumes of data, recognising patterns, summarising medical records, highlighting drug interactions or flagging areas of concern in imaging scans.

"Think of AI as a high-powered microscope. It allows doctors to see what is invisible to the naked eye, however the microscope cannot make treatment decisions. The doctor remains the ultimate decision-maker," he noted.

He warned against using AI for self-diagnosis or treatment as misinterpretation may cause unnecessary anxiety or a false sense of security, delaying proper medical attention.

"AI should be treated as a supplementary tool. Use it to generate questions for discussion with healthcare professionals and always verify information with trusted, peer-reviewed sources.

"AI has enormous potential to enhance healthcare by supporting doctors and improving access to information. But it should never replace the human judgement and expertise essential for safe, accurate and ethical medical care."

Healthcare must be centred on human oversight: Specialist

PETALING JAYA: Artificial intelligence (AI) has the potential to revolutionise medical diagnosis and healthcare delivery but it must never replace human clinical judgement, said Universiti Kebangsaan Malaysia public health specialist Prof Dr Sharifa Ezat Wan Puteh.

She said AI could serve as a tool to assist doctors in identifying potential diagnoses and narrowing down differential conditions, but stressed that final decisions must always be confirmed by medical professionals.

"AI may help suggest possible conditions and, in some cases, guide clinicians towards more accurate diagnoses. However, many diseases are complex and require a human touch. A final diagnosis must still be made by a medical professional."

She said AI systems could overdiagnose or underdiagnose conditions, leading to false positives or negatives.

She added that such errors could trigger unnecessary investigations or procedures, inflating healthcare costs and exposing patients to avoidable risks.

She also said AI is most effective when used to assist and automate existing healthcare services, particularly in diagnostics and pharmaceutical processes.

Full reliance on AI for medical decision-making could be dangerous, said Sharifa.

"Using AI as a support tool is acceptable, but relying fully on AI to make medical diagnoses or management decisions could be hazardous," she said.

"The recommended investigations, treatments or procedures suggested by AI may be inaccurate, especially in complex, severe or uncommon cases."

She highlighted that AI systems often rely on clinical algorithms that may not account for individual patient differences.

Biases in training data could influence AI recommendations, potentially leading to uncertain or even harmful outcomes, she added.

Nonetheless, she said AI could play a constructive role in treatment and patient management.

"AI tools could flag medication changes, support personalised nutrition plans for patients with chronic diseases and assist with screening decisions, but always under the supervision of healthcare professionals," she emphasised.

The Malaysian Medical Council (MMC) has issued ethical guidelines to govern AI in medical practice, emphasising safe, responsible and equitable application.

The guidelines stress bias-free systems, evidence-based practices, ethical safeguards as well as the importance of fairness, underscoring that AI must support, not replace, professional clinical judgement.

Aligned with international standards, including the World Health Organisation and Malaysia's National AI Governance and Ethics Guidelines, the MMC directives maintain that registered medical practitioners remain fully accountable for patient outcomes, even when AI tools are used in clinical decision-making.

Key principles include protecting patient autonomy, promoting wellbeing, ensuring transparency and explainability of AI systems, clarifying accountability, and safeguarding privacy and data protection.

The directives also outline that doctors must receive appropriate training before using AI, secure informed consent by explaining the tool's use and limitations, maintain strict data confidentiality, and retain the ability to override AI suggestions whenever necessary.

In the United States, the Food and Drug Administration has endorsed several AI-driven radiological and diagnostic tools, reflecting the growing acceptance of AI in healthcare under strong regulatory oversight.

"These developments are timely and crucial, but they also highlight the need for strong governance frameworks. Without oversight, AI could unintentionally widen health inequalities or undermine patient trust."

Ultimately, Sharifa stressed that human oversight must remain at the centre of healthcare, even as AI transforms delivery.

"AI should enhance clinical practice, not replace it. Ethical use, proper regulation and continuous human involvement are essential to ensure patient safety and maintain trust in our healthcare system."

– BY ***KIRTINEE RAMESH***

Rising concerns over using chatbots for self-diagnosis

PETALING JAYA: As artificial intelligence (AI) tools such as ChatGPT gain popularity, concerns are mounting over people relying on chatbots for self-diagnosis instead of consulting qualified doctors.

The debate was ignited by an online post asking whether users trust ChatGPT to diagnose health problems and whether its advice is safe.

Responses from the online community were largely critical, speaking against placing trust in AI for medical decisions.

Natural-You4322 sarcastically highlighted the danger of online symptom checks and said: "Search anything and you can end up with cancer as a diagnosis."

InterestingSir1866 said they avoid using ChatGPT for health issues, preferring cautious online searches.

"AI often makes mistakes and exaggerates, so I would not want to put my life in its hands."

mrpokealot called the idea of using ChatGPT as a doctor "terrifying" while awx10 said asking Google and ChatGPT should be avoided in the early stages of illness as they often leap to extreme conclusions.

Some acknowledged AI's appeal in providing reassurance.

Alexisreddit516 noted that ChatGPT's calm, confident tone could reduce panic compared with standard search engines, but stressed that responses are not gospel.

Concerns were also raised about "AI hallucinations", in which chatbots confidently generate false or misleading information.

RotiPisang_ said such responses could mislead users while ponyponyta highlighted examples of AI presenting dangerous inaccuracies as fact.

In their critique, ponyponyta said chatbots lack genuine understanding and merely stitch patterns from unverified sources.

The user spoke against treating AI as a replacement for professional judgement or therapy, noting that it could fail at even basic tasks, such as mathematics.

They claimed that some chatbots might respond inappropriately to vulnerable users discussing personal struggles, posing risks if AI is mistaken for professional support.

"AI may be useful for creative writing or storytelling, but it is poorly suited for situations in which factual accuracy matters."

They added that much of AI's appeal lies in its conversational "personality" while companies benefit from user interactions to collect data and market their technology.

"This is just my understanding," they concluded, urging scepticism when using AI for health, safety or personal wellbeing."

yoonpples highlighted ethical risks, saying chatbots may affirm harmful behaviour because they are designed to sound supportive rather than judge right from wrong.

Overall, users agreed that AI could provide general information but cannot replace trained medical professionals, particularly when health and safety are on the line.

– BY ***KIRTINEE RAMESH***