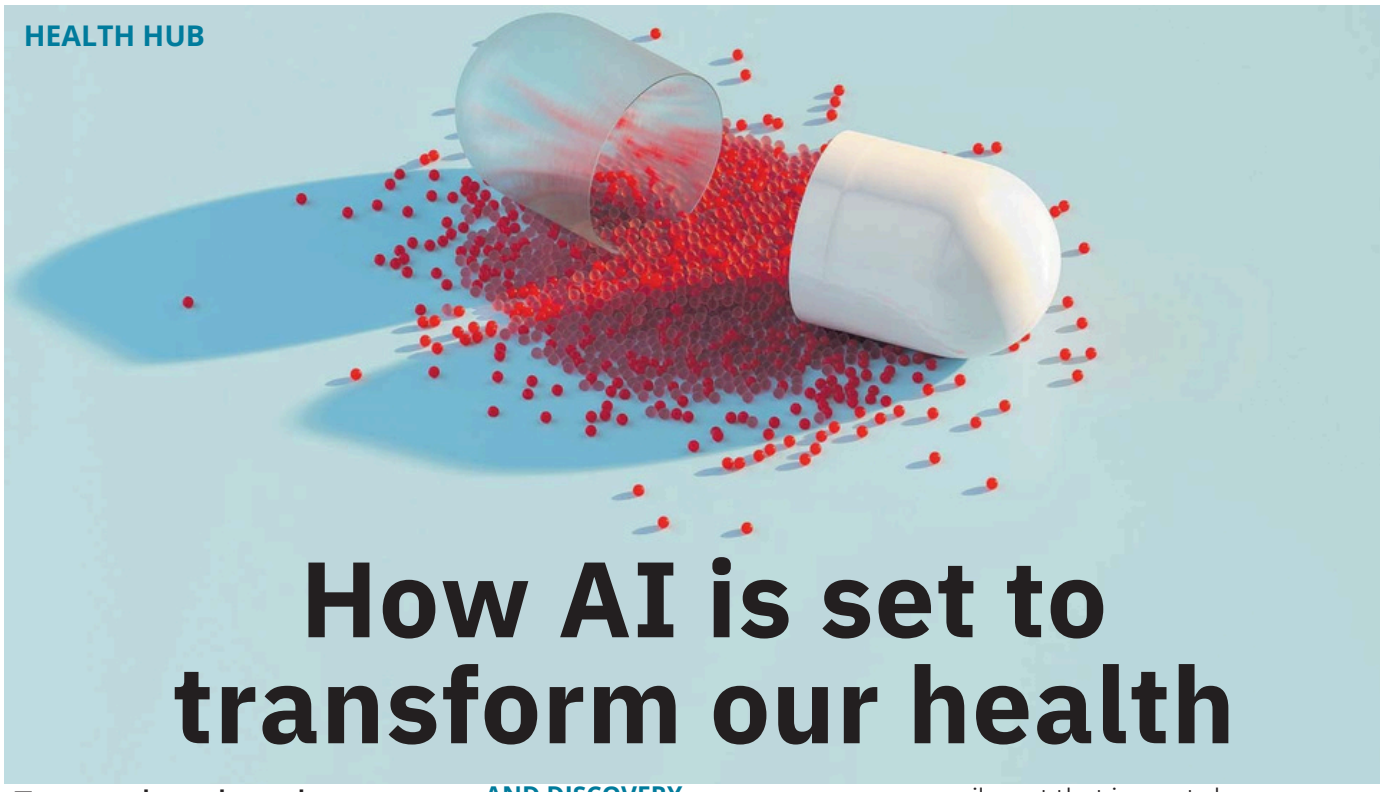
AUTHOR: Katie Hampson SECTION: TODAY ARTICLE TYPE: NEWS ITEM AUDIENCE : 359,000 PAGE: 1
PRINTED SIZE: 939.00cm² REGION: WA MARKET: Australia ASR: AUD 16,462 WORDS: 777
ITEM ID: 2063065931

23 APR, 2024

How AI is set to transform our health

West Australian, Perth

Return to media item



From the development of drugs and vaccines to improving diagnosis and treatment, AI is transforming health care — and many of us stand to benefit from its potential

Katie Hampson

on using AI to improve the extend care to more people.

Here are three scenarios for how it might help us live longer, healthier lives.

ADVANCING DRUG RESEARCH AND DISCOVERY

Research suggests that out of 10 drugs in development, nine will typically fail.

The use of AI technologies is set to improve success rates and accelerate drug discoveries.

"AI offers the opportunity to massively accelerate drug discovery and development and even simulate how the body might respond to certain drugs," said Alex Jenkins, director of Curtin University's WA Data Science Innovation Hub.

He noted AlphaFold had been a particularly significant achievement in the field of AI.

It performs predictions of protein structures with near experimental accuracy. "What used to take a PhD student three years to do can now be done in seconds using this AI," Mr Jenkins, pictured inset, explained. "It is massively beneficial for drug discovery and finding potential drugs that can be used to target diseases and disorders from cancer to HIV and any kind of ailment that impacts humans.

"I would say of any field, this is the area where AI has made the most tangible difference and it really is feasible that the developers of AlphaFold will win a Nobel Prize for their contributions to science."

He said scientists are also using AI to model the immune system.

The benefit of understanding how the immune system works will be more precise, tailored treatments for patients in the future, added Mr Jenkins.

MAKING BETTER AND FASTER DIAGNOSES

Research shows that every year in Australia an estimated 140,000 cases of misdiagnosis are made.

When that figure is broken down, data reveals 21,000 of those people are being seriously harmed and up to 4000 people die.

Integrating AI into health care is set to improve disease diagnosis, treatment selection and clinical laboratory testing.

"AI will definitely help

AUTHOR: Katie Hampson SECTION: TODAY ARTICLE TYPE: NEWS ITEM AUDIENCE : 359,000 PAGE: 1
PRINTED SIZE: 939.00cm² REGION: WA MARKET: Australia ASR: AUD 16,462 WORDS: 777
ITEM ID: 2063065931

23 APR, 2024

How AI is set to transform our health

West Australian, Perth

clinicians with diagnosis," Mr Jenkins said.

"Already the technology is at a point where it is comparable to a human doctor in many cases.

"There are still some reliability issues but what we are ready for now is a way to test these AIs in a safe way alongside human doctors."

He said to expect the kind of scenario where you visit your GP but first have a five-minute consultation with an AI before seeing the human doctor.

"We would need the research to confirm that the AI is actually fishing out the important things from the consultation and there are also going to be non-verbal things the AI is not going to pick up," noted Mr Jenkins.

"There is no doubt a large part of a GP's job is identifying the issues that a person isn't talking about and asking difficult questions, so AI is not going to replace human clinicians but we are at a point where I think AI can accelerate and increase the productivity of clinicians and I think the technology is ready to go."

He said ideally trials would begin within 12 months in Australia, involving AI diagnostics and software working alongside human clinicians.

IMPROVING THE LIVES OF PEOPLE WITH DISABILITY

One in six Australians lives with a disability and, according to Dr Stephanie Stoll, an expert in AI-powered sign-language translation, generative AI is driving inclusivity and accessibility.

She said it had the potential to bridge communication barriers for the deaf community.

Already, some of Britain's busiest train stations are trialling technology developed in Germany which provides live journey information translated into sign language on digital screens.

Dr Stoll said hard of hearing people who often struggled to hear station announcements were benefiting from this kind of AI.

Meanwhile, scientists at Curtin University are looking at how AI chatbots can help people with autism overcome difficulties with social communication and social interaction.

The company behind ChatGPT is also investigating how to use AI to assist the estimated 250 million people globally with vision impair ment.

For example, a visual assistance tool dubbed Be My Eyes is using ChatGPT's ability to describe visuals to help people who are blind or with low vision with hundreds of daily tasks.

"Advancements in AI have changed what is possible in this space, be it translating spoken words to sign language for people with deafness, using AI models to describe the world for the vision impaired, or using large language models and chatbots to support adolescents with autism to build social skills," Mr Jenkins added.