Tech › Artificial Intelligence - AI

Tech

Opyl's artificial intelligence will change clinical trials forever

August 6, 2020 | Special Report

SHARE

Special Report: Opyl's new AI tool is about to make the clinical trial industry very uncomfortable, and possibly save companies millions of dollars.

Despite the fact that the clinical trials industry hinges on quality data collection, the sector is yet to truly embrace digital transformation and data optimisation; however, if one ASX company has its way that mindset is set to change rapidly.

Using AI to disrupt the sector, **Opyl (ASX:OPL)** is developing a clinical trial predictor tool that calculates which study design is most likely to deliver a successful result.

This tool employs an AI-based algorithm to look at, so far, over 500,000 past trials and come up with the perfect study design — from the number of patients, to how long it should take, and even where it

should be conducted and by whom.

The idea is that it will save companies millions by streamlining **the increasingly expensive process of getting a drug or device through the very risky trial system in which the majority of drug or medical device candidates fail.**

"We've been doing clinical trials the same way for 60 years," CEO Michelle Gallaher told *Stockhead*.

"But today we have a convergence of supercomputing, wearables and real world information which are opening up secondary and tertiary levels of data collection. Now it's up to us to make the most of predictive analytical tools to make the most of that data and improve the design and implementation of clinical trials.

"We're at a watershed moment for the clinical trial industry to really embrace digital transformation.

"The richness and depth of the knowledge that this technology will open is going to be huge and we expect the clinical trials industry will take a big step up in terms of value — even trials that don't meet their endpoints will continue to add value."

The proof-of-concept tool is expected to be finished by the end of 2020.

Gallaher says the next steps are to gain access to more clinical data and live trials, so they can test the algorithm against human trial designers.

They are also "down the track" in talks with a potential partner.

AI is the future

AI is being used in some parts of the broader health industry, such as the COVID-19 vaccine effort where it's been used to narrow the field of candidates.

But the clinical trial sector, which all drugs and devices must pass through to be approved by regulators, is in need of transformation, says St Vincents Hospital deputy director of research Dr Tam Nguyen.

"As a sector as a whole we're not doing well. It might be a harsh comment, but I think we're behind," he told *Stockhead*.

It'll give Australia an edge

Nguyen says Australia is in the top five countries in the world in terms of its scientific output but translating these from academia to the real world is "something we need to work on".

Australia has a strong reputation globally as a location for clinical trials, thanks the quality of our health system,to efforts over the years to offer R&D tax incentives and **to streamline ethics and approvals processes between states and institutions.**

But its status as a pre-eminent location for clinical trials is not guaranteed as countries such as Singapore, which has funded a $S150m AI framework to build out various ecosystems including health tech, compete to secure a piece of the multi-billion dollar industry.

Nguyen says a data-based edge that ranked contract research organisations and sites could make the Australian sector even more competitive.

"This will help us as a sector on the global stage," he said, and gaps in funding, processes, or knowledge could be aired and then addressed.

"I think Opyl comes in at the right time to address that [data] gap and provide tools for researchers and clinicians to change the way they think about clinical trials."

Gallaher says they know the new software will be "very uncomfortable" for some entities in the clinical trials industry, with rankings and probability ratings based on past performance.

But it will also be particularly useful for small biotechs with limited budgets, the organisations that do a considerable amount of heavy lifting and wear the bulk of the risk around clinical trials.

"It will likely influence whom a small company may choose to run their trials and ultimately who they partner with down the track, because there will be at last, some transparency around past performance in bringing a drug or device through clinical trials," she said.

"We'll also find out whether Australia is as good a location for trials as we think it is."

This article was developed in collaboration with Opyl, a Stockhead advertiser at the time of publishing. This article does not constitute financial product advice. You should consider obtaining independent advice before making any financial decisions.

READ MORE

ARTIFICIAL INTELLIGENCE - AI

Featured Companies