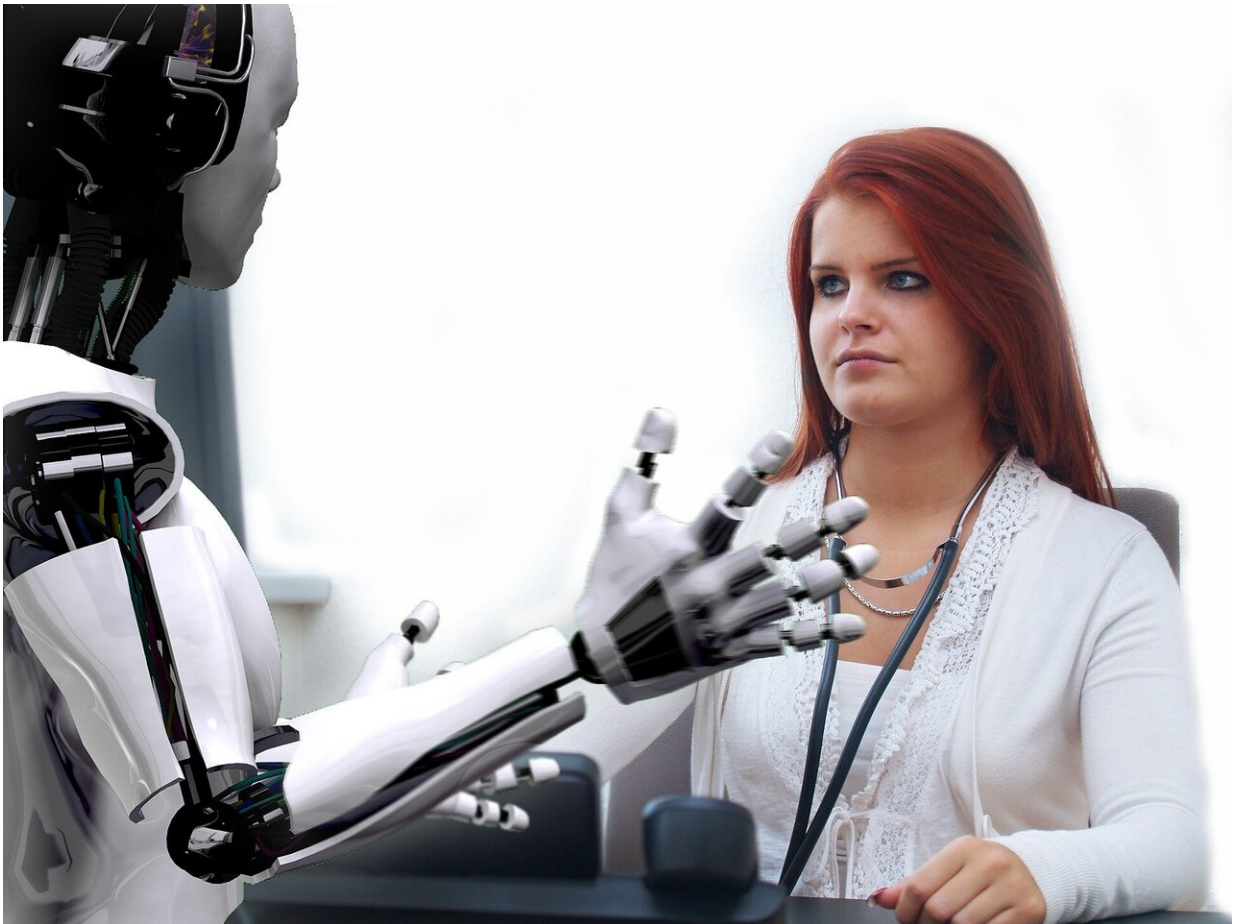


Researcher: New Zealand needs to prepare for the arrival of medical AI

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Robotic doctors and other artificial intelligence tools are coming to New

Zealand's healthcare system and we need to be ready for the ethical and legal challenges they will bring, warns a University of Canterbury (UC) Ph.D. student.

Chris Boniface is researching the impact of artificial intelligence (AI) on medicine, particularly the way these new technologies will affect a patient's rights and privacy.

Current New Zealand laws are not equipped to deal with the realities of machines performing medical tasks, Boniface says.

"At the moment AI in the medical sector is limited to things like diagnostic tools and providing information on drug interactions. It's not as common or widespread here as it is in Asia and Europe, but it's something that's definitely coming, and I think we need to make changes before it arrives to make sure our health system, and legal system, is prepared."

He believes there should be a Law Commission inquiry into AI in general, and issues of informed consent, patient privacy, and medical negligence, in particular.

It's important to consider who will be held responsible when AI tools are used in a [medical procedure](#) that goes wrong, Boniface says. This is something he explores in a recent *New Zealand Law Journal* article, "Medical negligence in the age of artificial intelligence."

He highlights a case in Newcastle, Britain in 2015 where a patient died following heart surgery that was deemed low-risk. A coroner later found the death was due, in part, because the operation happened with the assistance of a "da Vinci robot," a high precision [tool](#) operated remotely by a surgeon.

"I think there are some questions about liability and who's to blame when things go wrong," he says.

"My research is trying to create a kind of blueprint of a solution so that when AI comes along we've at least had a conversation about some of these issues, because our health system in New Zealand is quite different from overseas."

Boniface is in his third year of a four-year degree in UC's School of Law and is currently carrying out a survey for his thesis of about 200 people—mainly post-graduate students—to find out their understanding and views of AI tools in medicine.

Early results suggest [younger people](#) are more likely to be comfortable with AI, while slightly older age groups have more reservations and would prefer to deal with an empathetic person than a machine.

Overall, he has been surprised by how little understanding there is about AI.

"The way artificial intelligence works, it relies on an extraordinarily large amount of data, so that may not be compatible with our privacy laws. People might not feel comfortable with their [medical information](#) being used and shared in this way, but they probably don't understand that this will happen as part of AI."

"What I would like to do is give people some more information so they can start considering some of these dilemmas and questions before this technology arrives here and becomes part of New Zealand's healthcare system," Boniface says.

Provided by University of Canterbury

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