New defence act handcuffs science

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Academic freedom has long been accepted as a necessary condition for good research, but the Defence Trade Controls Act (DTCA) will give the public service extraordinary powers over academics.

From May 17, 2015 the Defence Trade Controls Act comes into effect. Under the Act, Defence bureaucrats will gain control over a very large share of high tech and science research in Australia. The impact on many researchers will be negative and profound.

Under the Act, publication, discussion or communication of research without a Defence permit is punishable by 10 years jail, a \$425,000 fine and forfeiture of your research to the government. This includes scientists, academics, librarians, engineers, high-tech workers and companies who have never had a prior relationship with the Department of Defence.

The Act was passed to allow a Defence Co-operation treaty with the US, but the Act doesn't just apply to military technology, but also so-called "dual use" civilian technology, including physics, computers, electronics, communications, manufacturing, medicine and biotechnology.

Dr Michael J. Biercuk, Senior Lecturer in the School of Physics at University of Sydney writing in The Conversation said it is "obvious that cutting-edge scientific research relies heavily on exactly the kinds of technology that the list seeks to control."

Nobel Laureate Peter Doherty said in an e-mail: "A cell phone can have a 'dual use,' for conversation or to trigger a bomb. How far might an authoritarian regime take this? The virology community is very concerned about the interpretation of 'dual use' when it comes to investigative work with dangerous pathogens. Interpreted too broadly this type of legislation could have a stultifying effect on research."

In October 2012 the Coalition called the law a disgrace, but joined with Labor to pass it anyway.

Independent Rob Oakeshott MP warned Parliament: "The McCarthyist intent may be honourable, but the delivery through this legislation is dangerous. It is jeopardising our commitment to a research sector in Australia that I would have thought is important to all of us in the many fields that we deal with in this chamber, from food and fibre production all the way through to the medical and health sciences. ... Why on earth are we therefore including a criminal offence for a researcher in that space?"

Universities also opposed the law. University of Sydney Deputy Vice Chancellor of Research Professor Jill Trewhella writing in The Sydney Morning Herald warned: "This legislation could mean a conference speech, publication of a scientific paper or sending an email to colleagues could require a Defence permit or become a serious crime."

https://tinyurl.com/nouecqp The universities requested amendments for basic research, but even these were refused.

While academics are concerned for their own research, some see the Act as having a disastrous impact on the next generation of researchers. Dr Kevin Korb, Reader of Monash University's School of Information Technology said in an interview: "As it stands, the DTCA criminalizes publishing even basic research when that might have intended applications, but it also criminalizes PhDs and their publication, so overseas students in high tech will go elsewhere."

The DTCA gives the public service the power to force entry into universities and high-tech businesses to examine and copy academics' research, which the Commonwealth claims it has no duty of care to protect. This raises serious conflict of interest concerns because the Australian Government has its own business enterprises and partnerships, bids for its own contracts, and has exploited insider information for commercial advantage in the past.

In 2013, Crikey's Chris Seage reported the Department of Defence's DSTO was stealing IP from private-sector companies (Disclosure: one of those companies was my own) to benefit Defence's business partners financially. The thefts became so bad that one large defence company refused DSTO employees access to their premises, but now, under the DTCA, it must allow them both entry and full access to their IP. https://tinyurl.com/prl8tt9

The DTCA suspends the right to silence. If a public servant asks what is in a certain filing cabinet, you cannot refuse to answer. Answer incorrectly (perhaps something was moved or forgotten), and you have violated Section 137.1 of the Criminal Code, punishable by 12 months imprisonment.

If prosecuted, the onus of proof is reversed. Instead of the government having to prove your guilt, you must to prove your innocence.

Today's common law rights exist because of past abuses by public servants. The 'castle doctrine' was created because once public servants would break into your home to look around. Today the claim "I've got nothing to hide" invites government surveillance.

You might think so long as you do nothing wrong you have nothing to fear, but you could break the law accidentally by publishing something on the internet or discussing your work with someone overseas, even as a collaboration or in seeking peer-review.

You could also be convicted entirely on circumstantial evidence. Suppose there is a breakthrough in your area of research by an overseas colleague or a former foreign student of yours. The authorities could allege that you supplied the information to them.

The authorities can use metadata surveillance to prove you contacted them by phone or email, but even that is unnecessary; for a successful conviction, all they need do is show you had the information, and later that your colleagues had it too.

The NTEU (National Tertiary Education Union) warned members in a DTCA circular: 'Ultimate responsibility will be borne by you as individual researchers, or as staff who

may handle relevant scientific documents or publications. You bear the burden of facing financial penalties or going to jail'

To see how you might be prosecuted under the DTCA, let's examine the case of Allan Kessing; a public servant accused of leaking a report. The Australian's Legal journalist Chris Merritt called Kessing's treatment by the authorities "worthy of Kafka." https://tinyurl.com/kc4alcb

Police raided Kessing's family home twice. They found no direct evidence, so convicted him on circumstantial evidence; 'Only he had the report, so it must have been him.' Police knew others had the report too, but didn't tell the jury. By the time Kessing found out, he had no money left for an appeal. The process took four years and cost Kessing \$70,000 in lawyers' fees. At a press conference Kessing said: "The toll this ordeal has put on my family is immense."

Defence has a strong incentive to pursue prosecutions, because scientists convicted under the DTCA forfeit their research to the government.

In the past Defence has been criticised for failing to commercialise their research. In 2004 despite a \$260M research budget, Defence only generated \$1.5M income. An official report criticised Defence's poorly-performing spin-off companies. But forfeited technologies can be resold to generate additional income for Defence.

The DTCA will have a devastating effect on research and industry.

Biercuk writing in The Conversation warned: "Its potential implications are shocking, and at odds with existing Australian legislation protecting academic freedom – potentially disrupting and even criminalising common activities undertaken in the course of university research." https://tinyurl.com/oxlrv4f

Peter Goon, co-founder and former director of the Defence Teaming Centre (representing 230 companies) said in an email: "Many of our best and brightest people and innovative SMEs have or are moving their interests out of the Australian defence sector, and mostly offshore, because of the DTCA."

A High-tech Entrepreneur said in an interview: 'The government won't budge on the DTCA, but no entrepreneur is going to agree to cut growth and wade through a paperwork nightmare. I'm outsourcing our R&D overseas. It's cheaper anyway.'

Nobel Laureate Astrophysicist Brian Schmidt said in an e-mail: "The DTCA is going to be an interesting experience, and if there are going to be problems with it, expect all hell to break loose when it starts to bite."

Trewhella told Lateline the DTCA will drive scientists away: 'They're definitely telling me that they're going to have to assess the impact of this regulatory regime on their ability to be competitive and to do their work in Australia. They're definitely worried that it is going to have a big impact and they're concerned that they may have to go elsewhere to do their research.' https://tinyurl.com/mgml3k8

I myself warned the Commonwealth Chief Scientist: "I would not create a technology company in Australia under these circumstances." But in the two years since government has done nothing to reassure academia nor business. And so as manufacturing fails and unemployment climbs, at the end of this year I too leave Australia permanently to found a new high-tech company overseas.

For more information see "The Defence Trade Controls Act is an Attack on the Rights and Freedoms of Australians." http://victimsofdsto.com/dsubcom/ The Act is also being opposed by the National Tertiary Education Union, which represents employees in Australian tertiary education.

http://www.nteu.org.au/policy/research/defence trade controls/

The Minister for Industry Ian Macfarlane, Minister for Defence Senator David Johnston and Commonwealth Chief Scientist Professor Ian Chubb were approached for this article but declined to comment.

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