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FODI || THE IN-BETWEEN

EPISODE 05: Joanna Bourke & Toby Walsh

The In-Between theme music

Toby Walsh That same technology is going to go into autonomous missiles and be used to kill many people. And that raises profound moral, ethical, legal questions about what sort of world do we want to wake up in?

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Toby Bourke So how do we push back against these trends? Because in some sense, artificial intelligence is taking us to the ultimate disembodied dehumanised weapons that we could possibly imagine.

Danielle Harvey: Welcome to The-In Between, an audio project by the Festival of Dangerous Ideas, presented by the Ethics Centre. I'm Festival Director, Danielle Harvey.

This podcast was produced on Gadigal land. We pay respect to Elders past and present, and extend that respect to all First Nations people listening.

By the year 2062, it is predicted that we will have built machines that are as intelligent as humans.

Modern weapons will become more autonomous, machines will further infiltrate our daily lives, and the way we think of humanity will be permanently altered.

To understand what lies ahead and learn from our past, we have brought together Joanna Bourke and Toby Walsh in a conversation about AI, killer robots and what it means to be human.

Joanna Bourke is a professor of History at Birkbeck, University of London, and a Fellow of the British Academy. Joanna is a distinguished historian whose work spans the social and cultural histories of modern warfare, rape, violence and pain.

Toby Walsh is a researcher in artificial intelligence and has played a leading role in the campaign to ban lethal autonomous weapons. Toby has written widely about AI, moral machines, and his views on our future, in his book "2062: The World that AI made", as well as in his forthcoming book "Machines Behaving Badly: the morality of AI".

This conversation was recorded in October 2021, and is moderated by FODI Co-Curator and Director of the Centre for Ideas at UNSW Sydney, Ann Mossop.

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Theme music ends

Ann Mossop In a different time we all might be sitting in a room together, we might even be sitting in a room with a live audience. But because we're speaking to each other as we emerge from a global pandemic, we're all in different places. I'm in Sydney, speaking from my home office, and I'd like to acknowledge that I'm speaking from the lands of the Gadigal people of the Eora Nation. Tell me, Joanna, where are you?

Joanna Bourke Well, I got locked down in two places. My first lockdown was in London, which is my main home. But as soon as I could escape, I escaped to my second home, which is here in Athens. So it's a beautiful, sunny morning here. It's very early in the morning, but it's a really gorgeous day again.

Ann Mossop Well, sitting in rainy Sydney, that makes me feel rather jealous. Toby, tell us where you are?

Toby Walsh When Sydney was last locked down some 100 days ago, I was actually up in the mountains taking a skiing holiday, so we've been escaping lockdown in regional New South Wales, discovering the wonderful country that is Australia.

Ann Mossop So before we go any further, I want to ask each of you to introduce us a little bit to your work to give us some context on how you've come to do the work that you do. Toby, can you tell us both a little bit about how you came to work in artificial intelligence? And also, why it's so important to you to talk to the broad public about artificial intelligence and its implications?

Toby Walsh Like many of my colleagues working in artificial intelligence, I started by reading too much science fiction as a young boy. Authors like Arthur C. Clarke and Isaac Asimov, and they painted a very interesting picture full of robots, intelligent machines. But then I think what's interesting, particularly to this conversation, was that when I went to university and started to actually study in detail how we might build smarter machines, I realised it wasn't just an interesting activity with a nice side effect, but it was going to be something that was profoundly changing our world and was addressing perhaps one of the most deep scientific questions left unanswered, which is not about the machines, but is about us, about what it is to be human. Can we recreate much of that or all of that in silicon? And I don't think there are many more profound questions than that left to answer in science. And so I then spent the rest of my life trying to chip away at that large mountain of a task.

And how I got to be concerned and to be an accidental activist in many respects about autonomous weapons, about killer robots, about handing over killing to machines, is something actually quite recent. Only in the last decade or so, as the technology started to leave the laboratory, did many of us start to become concerned about its uses and misuses. And one of the challenges there is that it's very much a dual use technology. The same technologies that are going to go into the autonomous car that are going to save a billion

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road deaths around the world in car accidents, that same technology is going to go into autonomous missiles and be used to kill many people. And that raises profound moral, ethical, legal questions about what sort of world do we want to wake up in? I felt I had a real responsibility as someone who understood the technology to try and explain to the wider world what roads were possible.

Ann Mossop Joanna, how did you come to history and to the particular kind of history that you have become known for? And why is it important to you to talk not just to your fellow historians, but to the broader community about your work?

Joanna Bourke I think this is really interesting because, you know, it's a similar story to me. I mean, I actually came to history through poetry. This was really my great passion when I was a young person and indeed still is. I mean, it may seem a strange thing to say, but you know, but much of my childhood was spent in places, for example, I grew up in places like Haiti, which of course, is a very beautiful and culturally rich nation but one wracked with pain, with inequality and, of course, extreme violence. So, you know, from my youth to the present day, I felt kind of compelled to think about and to think with themes of violence, themes of inhumanity. You know, those times when you know political gloom, destructive dystopias, urban landscapes stained with blood and the, you know, the cries of people in pain. These are things that I'm compelled from my youth, to look at to ask questions like how and why.

And in terms of poetry, I think I still remember the time when I first read Auden's poem, which is called for the time being, where he actually writes about the twisting lanes of history which expose the savage water, unfeeling stone labyrinths where we must entertain confusion, cripples tigers, thunder pain. And, you know, I think those words really spoke to me as a young person, but I think also what history does for me it's not only about violence and pain, but it's also about creativity and compassion. This is not only a negative story, but actually it's also very hopeful because it's about agency, it's about humans creating and recreating their worlds.

Ann Mossop Toby. Meaningful levels of artificial intelligence have been just around the corner for quite a long time. You've said that 2062 is the point at which the machines that are more intelligent than people may be here. And you came up with this by asking both a group of expert colleagues and also a group of non-experts to give you their predictions about when this might happen. From an ordinary observer's point of view, it does feel like that in the last few years, acceleration in developments of AI is making this real and certainly, as you said previously, that it's starting to be put into practise. Do you think that we're on the cusp of a new age in terms of that impact of AI?

Toby Walsh I do think so, I think that technology is coming along and it seems to be arriving pretty much as we speak. There is going to be change. The nature of work is going to change our economies in very profound ways. And also then in a deep philosophical way, is possibly going to change the way we think about ourselves. If we think back about the big scientific revolutions and the ones that they say you know, Copernicus and Galileo, who told us that we weren't actually at the centre of the universe. Darwin, who told us that we were no different than the apes. I think we actually face another scientific revolution that will again change how we think about ourselves, because the one thing that we've got left, the one

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thing that we think makes us special is that we think that we are, that we are more intelligent. We are the animal that commands language and composes music and writes sonnets and does all those wonderful things that go into our society. And we are facing the prospect that that will be taken from us, that we won't be unique, but that machines may be able to do all those things. And indeed, machines may be able to do all those things better than us. And that will be a profound moment of humility, perhaps a profound moment of realisation of what it is to be human. What makes, or what doesn't make us special.

Ann Mossop That's a very interesting point, and I think it goes to much of the kind of work that Joanna has done about, you know, the fact that for centuries humans have just defined themselves as superior by defining themselves as not being animals and that as technologies have changed it, we've in some ways thought about machines in the same way. That they are there to do things, you know, quantity that humans can't do. They're there to do the heavy lifting in certain kind of things, but they are inferior to us. I mean, I know that in your work, you do say that we may not get to the point of super intelligent machines. But do you think, with that whole question about humans defining ourselves as better than, do you think that we would let that be disrupted by machines?

Toby Walsh (Laughs.) Well, I think it would be terribly conceited to say that we were as smart as you could possibly be. There are lots of lots of human frailties that we have. And there are lots of reasons to suppose that machines might do certain things better than us. And indeed, they already do some things better. They already play chess better than us. They already read X-rays better than us. And if we've learnt anything from the history of science is that whenever we thought we had some distinguishing characteristics that machines didn't have or animals didn't have, ultimately we'd been proved wrong. We're not the only animal that uses language, we're not the only animal that can count. Of course, machines don't have our consciousness, our sentience yet, at least today, I mean they don't have our emotional, rich, emotional lives. And again, it's not clear if they will necessarily have that.

But in terms of raw intelligence or IQ, it's hard to imagine that machines wouldn't pass us and that should be a moment of reflection. I mean, my colleague Stuart Russell has painted a lovely scenario. If we receive news from deep space that aliens were due to arrive in the next 30 or 40 years, there would be crisis meetings at the United Nations. There would be a large talk task force assembled to work out what to do with presumably what mankind perceived as the threat that this posed to the existence of humanity and so on. And yet we do face that real prospect in our superior intelligence who can arrive on Earth, and it's called artificial intelligence. And yet it isn't preoccupying too many people's thoughts.

Joanna Bourke I think what you just said there Toby is really, really important for us to think about. Because what we're seeing now in the current situation with AI is something that is very, potentially very, very worrying. The 20th century great sort of ideology, if you like of all that, the 20th and early 21st century, is of course, human rights, which has made a massive impact on the way we conduct war, how we deal with crises in the world. And one of the things that really concerns me about the autonomous weaponry that is being developed or has already been developed and is becoming increasingly sophisticated is that it undercuts potentially that whole approach. You know, the use and bellow of humanitarian law is based fundamentally on this idea of the active, willing human agent who can be held responsible

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and be held accountable for lethal decisions in war time. And you know, with this, the increase in semi and fully autonomous machines charged with making decisions about whom to kill the very basis of human rights, of humanitarianism is undercut. And I think that is something that we really should fear and also in the short term as well as the longer term. I mean, I'm thinking as an historian the speed with which advanced democracies descended into war in 1939 and the closeness, how close we came to mutually assured destruction during the Cold War. So these things can move, in fact, extremely quickly. And one of the things that really worries me is the complacency that so many people have towards these changes in our society, particularly the scientific ones.

Toby Walsh I think you put your finger on a really important issue there, which is that if we look back at the history of how these technologies have disrupted and impacted our rights, we look at the development of chemical weapons and nuclear weapons, and we see that the technology was developed far quicker than our ability to regulate and our ability to deal with the human rights impacts of it. And it was always a game of catch up. And I think that's what worries me most about artificial intelligence and certainly about autonomous warfare is that we will have to perhaps see these technologies being misused, being used to cause much harm before we actually have the nous to realise, oh, actually, like nuclear weapons like chemical weapons like biological weapons. We do have to rein in what we allow people to do with these technologies.

Music bridge

Ann Mossop If we look forward and say we're stepping into a new age, what do we want to take with us and what do we want to leave behind? Joanna, you've written very interestingly about the way in which our culture has become progressively more militarised, that we've become a society where, particularly in recent decades, the whole way that gaming and what you quote your colleagues as inventing the term 'military entertainment industrial complex'. This whole collision of the online world with the world of the military had a huge impact in the sense that it reaches this huge audience who are not people who are going to fight wars, but who have nevertheless become part of this militarised culture, do you think that we can leave that behind?

Joanna Bourke Yeah. The thing about the gaming culture, which, to be really honest, I knew very little about before I started writing the book *Wounding the World*. It's a very male-dominated genre that is changing very quickly, but it's still a male dominated genre, both in terms of the gamers themselves, but also in terms of the programmers and the creators of these programmes. But one of the things that really interested me was the really tight relationship between the entertainment industry and military industries. And you mentioned millertainment, which I think really summarises it perfectly. And that the movement goes both ways. So you get military investing trillions of dollars and yen and pounds in gaming toys games. And using those online games explicitly as recruiting instruments. But also that the entertainment industry also contributes to the military. So, so many of these games are used in military training regimes in the barracks again, as they explicitly say, is a cheap way of training soldiers to carry out murderous actions.

I do believe, though, that feminists and other critics have spent a little bit too much time sort of fighting over or questioning whether, you know, war gaming actually increases young male

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aggression or whether it actually dissipates the aggressive impulses of people. And I think that that's a kind of tired and old argument that I want to put aside because I think what's really interesting about gaming is not whether it has any brutalising effect on people who play the games. I mean, if it did, we really would have carnage since it's so popular, but that it has real world implications in terms of socialising people into training people for war. So I think that's something that we, not leave behind, but I think we need to really address the bigger questions. And I think where Toby and I may, may disagree. I'm not sure here but I don't want us to forget the broader culture of the military and weaponry, which is causing incredible pain and suffering and deaths worldwide. And so I do worry that by focussing too much on one particular kind of weapon, which is, you know, has potential for destroying the world, just like nuclear weapons that we don't forget that broad a picture of, you know, weapons that mutilate, dismember, kill and cause incredible suffering.

Toby Walsh So, Joanna, there's a technical ethical connection that I want to ask you about, which is that between gaming and between the increasing development of military technologies. And that's the way that both are distancing us from the battlefield. And indeed, you know, we've all of us saw pictures of the smart weapons being used in the Iraq War and have seen pilots of semi-autonomous drones and that you see that in some sense, the technologies are merging together and that they're taking us away from the actual act of killing ourselves, in some sense dehumanising what we do in the battlefield.

Joanna Bourke Yeah, I think one of the real problems or risks of war gaming is this dehumanising of others and particularly of the enemy. So what you get here is that, you know, the aggressors are actually led to believe that in some way, the people that they are acting against are their victims, in other words, are either post-human or in fact, not human at all. So I've done quite a lot of work talking to people who are in charge of drones. And this disconnect that they talk about all the time between the the pixel screen that that they use to kill people. And on the other hand, when they go home, they're doing exactly the same thing when they're doing war gaming. So this real problem that the distinction that was really at the heart of 19th and 20th century, in fact war throughout the time, that it's the life of the sentient body that is, you know, face to face that that is being disruptive, that the sentient body in the avatar is becoming blurred if you like so biological and simulated existence. It's no longer clear what it is. And this is precisely why the military itself uses war gaming in order to train their soldiers and navy personnel and air personnel, because actually, it is quite an effective way of dehumanising the enemy.

Toby Walsh I mean, interestingly, studies have suggested that drone pilots suffer post-traumatic stress disorder at the same, if not greater, rates than real pilots, despite the fact that they're not actually in the battle, they're actually just watching these pixels on the screen.

Joanna Bourke Yes, exactly. And there's lots of research done about that, because on the one hand, there is this tension between, for drone pilots, that on the one hand, they are at a great distance from their victims and it's a pixel, pixel screen. But on the other hand, they actually get to linger afterwards when they're doing body count. So they actually do see quite a lot of really gruesome bodies, if you like. But on the other hand, what a lot of the research is showing in terms of PTSD is that it is precisely that blurring that causes the problems. In other words, the blurring is not simply the pixel computer screen. The blurring is what is real and what are they gaming activities? Because of course, when you were doing a lot of these

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gamings, you also get up and close to dismembered bodies. So that is what is causing so much of the trauma for these young men and indeed women.

Toby Walsh So how do we push back against these trends? Because in some sense, artificial intelligence is taking us to the ultimate disembodied dehumanised weapons that we could possibly imagine.

Joanna Bourke I think actually we need to push back, along all aspects of militarisation. In other words, even though I'm very active in campaigns against autonomous weapons and that sort of AI aspect of it. I think that if we only focus on that, that is actually not taking this far enough. That we actually need to think more broadly about what we are doing when we engage in military conflict. And that is something that all of us need to engage with. So it's not only a question for people who are actually in military establishments who are involved with weaponry and weapon design and production. But it is a question for all of us to think about what we were actually doing when our taxes are paying for these technologies, which wreak such havoc.

Toby Walsh But you're an optimist. But if I look at the last hundred years, I look at the direction that we're traveling in is that warfare has got more destructive and weapons have become more violent. And it doesn't seem to me that we're going in, the derivative is even in the right direction.

Joanna Bourke No, I don't think right now we are going in the right direction. Why am I an optimist? Because I refuse. I absolutely refuse to give up on the fight, if you like. That, you know, we can't if we simply say it's inevitable, it's going in this direction. You know, it's a hopeless position. I don't believe it is inevitable. I believe that we can, through our institutions, through our socialisation, through society, through culture, that we actually can push back against this, this move. And we can't simply throw up our hands and say, it's all too late.

BRIDGE - MUSIC

Ann Mossop Joanna, one of the things that you argue very effectively in *Wounding the World* is this we cannot accept the inevitability of war and that humans are warlike people and conflict and so on. Toby, in the world in which you work in terms of AI and weaponry, there are some very interesting arguments from your fellow researchers about why they need to go on working on these things, because if they don't work on them, other countries or other regimes will develop weapons and then democratic countries will be at a disadvantage. But also this idea that machines could be better at not killing civilians and you could, in fact, hand war over to machines in a way and remove people from it. Of course, what doesn't emerge in those are not arguments about, would it be better for machines to be fighting machines a la, you know, *Star Wars*, it's the fact that very often what we're seeing even at this stage when it's a question of drones is the definition of asymmetrical warfare, which is armies of machines against armies of humans with 19th or 20th century technology. What is happening in those conversations inside the AI world about these ethical issues, about research and about the responsibility of scientists in relation to this research?

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Toby Walsh Is not against armies of civil armies, it's against civilians, it's against women and children. That's the (Ann yes) huge asymmetry that you see in conventional conflicts today. And it's not, sadly, robots against robots, because if you go through these robots against robots, you wouldn't even need war. You could decide it with a game of chess or something like that. But no one's signing up to those sorts of things. Well there's two fatal flaws of all these arguments. One is that we have no idea how to programme machines to behave along the lines of international humanitarian law, and they certainly can't be held accountable for their mistakes and all of this. And then secondly, even if we could, and I admit that there may be some point in the future, maybe we could build machines, computers that were sophisticated enough that they could apply principles of proportionality and distinction and all were those important things that were developed over the last hundred years, the rules under which we find it tolerable to fight war and kill each other.

The problem is that computers can all be hacked, and so whilst we might build such machines, there are plenty of bad actors out there who would remove those safeguards and then we'd end up with the terrible killing machine. One that would do orders, however vile and however immoral, that would follow those actions to the latter.

Music bridge

Ann Mossop I just want to ask you to think about how we might remember this point in time. If we're looking back at where we are now, what's happening, the changes that lie in store, how will we think about it? And are there things that we will be sorry to have lost from this time? Are there things that we will celebrate having left behind? How will we think about this point in time in the future, do you think?

Joanna Bourke Well, one of the reasons I'm an historian is actually because I'm an optimist, because, you know, I believe very, very strongly in human creativity and communion. If you look in, you know, historically, humans have become who we are precisely because we are a cooperative animal, you know, we enjoy other human beings and we're very, very creative. So I think one of the central issues for anyone thinking about these issues is, in other words, this belief that it doesn't have to be that way, that we have agency, that we can have an influence on our worlds. And you know, we want to love. We want to laugh. We want to engage with other people. And we don't have to be enthralled to military practises or technologies or ideologies or even symbols.

And one of the things that I, I always say when people say, what can we do in terms of sexual violence, in terms of climate, in terms of military technologies. And that is that it has to happen locally. And I think one of the things about Toby's really important intervention in terms of military technologies is to actually get people to sign, get people to come together, as well as using their individual local contexts in order to do something. So this does have to be something that each and every one of us makes an effort towards changing the world in a better way. But you know, we can, it doesn't have to be this way. Wars are human constructions. They can be unmade as well as made. Same thing in terms of my own current work, which is actually on sexual violence that, you know, there are ways that we can teach ourselves about how we should be interacting with other people and that kind of hope, I think, that we can create a world without these kinds of violence, is what motivates me and drives

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me. And I think it is also what really makes us human.

Toby Walsh Yeah, I think, Joanna, I agree with you. In some sense, our secret superpower was not our intelligence, it is our ability to form society. That was the thing that we combined together in groups and we've used that to leverage and to be much, much smarter than any individual within those groups. And perhaps that's, you know, the mistake of the 20th century was the globalisation project which was dealing with a real harm, a real challenge we had. We fought two world wars. We never wanted to do that again. And there was obviously economic benefits to be had to that project. But that has undermined our sense of our local society. And that's something that the pandemic has thrown out, which is that it's given us an awakening reawakening to the value of our local communities. Because we have literally been forced to stay at home and stay within those communities. We've begun to realise how important they are to our well-being. And so I think that, we have to be careful that that turning inward is isn't to towards base nationalistic trends that are destructive to our societies as a whole, but but equally, I think that growing subsidiarity of pushing decisions down to the local level is actually an optimistic and hopeful one.

Ann Mossop Thank you so much to both of you for this wonderful conversation. It was such a pleasure to talk to you. and I hope one day, you know, we will all be in the same town having a reminiscent refreshment actually in person because it would be lovely to continue the conversation.

Toby Walsh It's been a pleasure. And Joanna, I do hope you will be coming to Sydney before too long and that we can take you out for dinner somewhere and sit down and continue the conversation over some fine food and wine.

Joanna Bourke I would really love that. Toby and any one of you, if you are ever in this part of the world as well. I'd love to take you for some souvlaki!

The In-Between theme music

Danielle Harvey: Thank you to Joanna Bourke, Toby Walsh and Ann Mossop. Accompanying this episode is a short response in sound as an AI attempts to verbalise what it means to be human, and to predict what the future holds.

In our next conversation, we sit between Roxane Gaye and Kate Manne to hear about the forces at play in their on and offline worlds.

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