

Barbara ([00:00](#)):

I want to begin by acknowledging with all of you that we're gathering on the traditional country of the Ghana people at the Adelaide Plains, and we recognize and respect their cultural heritage, their beliefs, their relationships with the land. And we acknowledge that these are of continuing importance to the garner people living today, and that we respect their elders past and present. And for those of you who are in the Twitter universe our tweet handle is at ADL FOI and the hashtag is a hash ADL FOI and Instagram is also available on the same kind of letters. So on to our topic. There's no doubt that the world of work is changing very dramatically around us. The death of work has long been predicted. In fact, in 1930, John Maynard Keynes, the wonderful economist wrote an essay titled economic possibilities for our grandchildren, where he made us the startling prediction that by the time his grandchildren came along, we'd all be working 15 hours a week.

Barbara ([01:02](#)):

Ironically Cayne died of overwork, very sadly, a wonderful person and died way too young and NPR Radio in the US recently went looking for the generation of his own grandchildren. He had no children, but his sister had children and they found two of those effectively grandchildren generation one was working as an academic. And the other was a psychotherapist. They both worked more than 50 hours a week and struggled to have a holiday. So Cayne's prophecy hasn't quite come true. And today we're going to pick up many of the issues that he and many others talk about in a lot of us think about in our daily lives. So it's wonderful to have Tim talking to us. Tim has a PhD in political philosophy. He's written and broadcast extensively in the US and in Australian politics. And he's, he's well known in the media.

Barbara ([01:53](#)):

He's a frequent contributor to public discussions about media and politics. He's been involved in work on a number of media startups, and his latest book is why the future is workless. And it is available in many places, including any airport that you happen to be passing through, which is the height of success for an author. Something that makes you very pleased when you're walking through a bookshop, I've never had that experience. Tim teaches entrepreneurial journalism to postgraduate students at Melbourne university center for advancing journalism, and he lives in Melbourne with his wife and son, please welcome to

Speaker 2 ([02:33](#)):

[Inaudible].

Tim Dunlop ([02:34](#)):

Oh, thank you very much, Barbara. And thank you everyone for having me along today. I'm just trying to work out if I can read this without my glasses. I think I can. I think I printed it large enough to do that. So I've been asked to talk about the new book that Barbara just mentioned and the issues that rises. And I thought I might begin by trying to explain how I came to write it. And it began about four years ago with a discussion with my parents. And we were talking about the jobs that I'd had in my life. And we talked about the very first job I had, which was working for my dad in a service station that he owned in Canberra. And, you know, this is a hundred years ago sort of thing. This is back in the days when they really were service stations.

Tim Dunlop ([03:18](#)):

And we used to run out and fill up the cars with petrol and check the oil and water and get down and do the tires and clean wind screens and all that stuff. It's a job. I probably probably remember with more fondness in hindsight than I actually felt at the time. I can remember on one occasion, a guy pulling into the driveway, he'd got out, opened up his bonnet and he told me that he needed a quart of oil. So I went and collected the quart of oil from the rack next to the petrol pump. And by the time I got round to the front of the car, he'd as I said, opened the bonnet, but he'd also taken off the radiator cap and he'd wandered off. Yes, exactly. He'd wandered off to get the water. May I just saw the hall and upended the core of oil into his radiator.

Tim Dunlop ([04:09](#)):

My dad was standing about 20 feet away and he saw it happening and it must have unfolded like a slow motion nightmare for him. I think he reached me without his feet touching the ground, snatch the oil bottle away, but the damage was already done. Fortunately for me, the customer was incredibly understanding and we just kind of rolled the car over a drain and flushed out the radio to, and I think everything was like I'm not really sure by an amazing coincidence. About a week later, dad came home and said, Hey, I got you a job interview at the local record shop.

Tim Dunlop ([04:48](#)):

Maybe you'd like to do that. And he was right. I did. And actually look to this day, I'd have to say the record shop jobs, probably the best job I've ever had. I worked there Friday nights and Saturday mornings. And then I took two years off after school to third university so that I could keep working there. It was actually the, it was in Canberra was actually the largest record shop in Australia. And I ended up as what we called the record buyer. So I was in charge of, you know, stock. And that meant I got to sit out the back with the reps every week and listen to all the new releases before they were hit the shelves. So, you know, it was pretty much heaven. I have to say. My boss was a guy called Terry who was a really brilliant manager. And I think he kind of trusted my musical knowledge, but he was insanely vigilant about stock levels and was always at me not to water too much. Actually he said to me, once to you it's music. And it's the most important thing in the world. To me, it could be sausages.

Tim Dunlop ([05:51](#)):

I was actually working there in that shop the day that John Lennon died and tearing my boss, he was out of the store at the time, but I didn't really need to be told what to do. The shop sold out of Len and albums and boodle albums within about 15 minutes of the announcement of Lennon's death. So I flew upstairs and I placed an order for Beatles albums and Landon downs. I placed a really big order for all these albums. Terry arrived back at the store about an hour later bursting in. Did you hear the news? Did you hear the news? And I said, yes, yes. We heard the news. Have you ordered? Yes. I said, we've ordered. And you know, I pulled out the stock cards and handed in the stock cards cause it was stock cards in those days. We didn't have computers, of course. And you know, there was a dread in my heart at the size of this order that he was now examining and he looked it over and he looked me in the eye and he said, go upstairs and double it first and last time that ever happened. Anyway, later that day, the shots clauded were ringing off the cash registers. And I took a moment and I said to Terry, you know, it's actually, it's really sad. What's happened. It is. He said, seriously, won't be as big as Elvis.

Tim Dunlop ([07:13](#)):

So eventually I did start, I had to go to university. But I also started writing freelance first for music magazines and then others. And then I moved to Melbourne and with a couple of other guys, we

opened one of the first video libraries there later I taught at university and I've been writing books and articles. And the point I'm making with all of this is that every single one of those industries that I've been involved with has been totally upended by technology in the time that I've in, in my working life. So service stations were turned self-serve by automation record and video shops no longer exist. And we stream music and films. Journalism has been completely guarded by digitization and even universities are increasingly teaching online and employing people on short term contracts. So this was kind of the inspiration for the book. I wanted to understand what was happening and, you know, with the son of my arm, I wanted to know what sorts of jobs were likely to be available for him.

Tim Dunlop ([08:16](#)):

So what I'm going to talk about today pushes the boat out a bit beyond those immediate concerns into a medium term future. Nonetheless, I hope that what I say today and what I talk about in the book gets us thinking about where the world of work is heading. The book looks ahead about 20 odd years. But a key point it makes is that we're already in a period of transition. Lots of things about work are already changing. And to me, this means we have to start planning now in what follows, I'll talk about how many jobs are likely to disappear and what's likely to replace them. I'll talk about the sorts of skills that people are going to need for those jobs of the future. And I'll offer some tentative thoughts on what the world might look like as automation increasingly does the jobs that we humans now do.

Tim Dunlop ([09:11](#)):

And I also want to say something briefly about the role of government in all of this. So more often than not the question that I'm asked about the book is will a robot take my job? And my answer is that's the wrong question. As I sign the book's introduction, if all you want to know is whether a robot will be able to, at some point in the future, do the job that you do, then I can save you a lot of bother. The answer is yes, robots or technologies of some sort will. The rule of thumb for thinking about this is that if you can write down the rules for a job, then a machine is likely to be able to do it. Nonetheless, estimates of job losses from automation vary greatly. And there are certainly those who think that concerns about technological unemployment are exaggerated.

Tim Dunlop ([10:04](#)):

The most famous reports suggesting that there will be big job. Losses is one written by Carl Frey and Michael Osborne of the Oxford Martin school. They examined 702 jobs, which is the number of jobs listed by the United States department of labor. They examine them against various criteria and then rank them in order from the list to the most likely to be automated. And their much publicized conclusion was that 47% of those 702 jobs would be lost disappear within 20 years, responding to this, the OACD conducted their own survey. They criticized Frye and Osborne's methodology, and they suggested that instead of using a jobs based assessment, it made more sense to take what they call a skills biased approach that is most jobs that we do require more than a single skill. So if you examine the skills involved in a single job and assess how likely they are to be automated, then the overall job losses are likely to be considerably lower. So our we're frying Osborne said 47%. The OACD concluded that only 9% of jobs were likely to be displaced, just going to have a super Ford issue.

Tim Dunlop ([11:31](#)):

Okay. Just as you're breathing a sigh of relief about that along came McKinsey and company. Now what they always say, they took a task based approach to the similar sort of survey. And they concluded, well, they conclusion says this. The key point was the bottom line they said is that 45% of work activities

could be automated using already demonstrated technology. That is, it could happen right now. The technology already exists to replace 44% of the tasks that I looked at now, as I say, not everyone is convinced by those kind of big figures. MIT economist, David Otter, for instance talks about what he calls technological anxiety. And he mocks such concerns in his influential paper, which is called Nope, not even remotely sarcastically. He called it. Why are there still so many jobs? His Piper is basically a version of what's called the Luddite fallacy. And his argument is that while technology may substitute for some types of labor, it is complimentary to others. Therefore computers may change the types of jobs being done, but there's no definite reduction in the total amount of work.

Tim Dunlop ([12:52](#)):

So maybe that makes everybody feel better. I don't know. There are, there are others though. Other economists argue that what the proponents of the lot art fallacy ignore is the reduction in work hours that comes with automation. Michael Burnley, for instance, points out that since the late 18 hundreds, there's been a reduction in working hours of around about 50%. Since the, since around the 18 hundreds, it's ticked up a little again from about the light IDs, but overall 50% reduction. So in other words, if we still work the same hours we did back then, the unemployment rate would be roundabout 50%. Another way of putting this as Burnley and others do, is that what we have is a distribution problem, not a production problem. So if anything, the industrialized world suffers from over production, all the stuff we want and not enough time to enjoy it. So we don't need more jobs in order to produce more. We need the jobs to give people access through the wages earned. So the things that would have been produced, whether they were working in the job or not in the words of author William Gibson, the future is already here. It's just not very evenly distributed.

Tim Dunlop ([14:15](#)):

Sorry. The question then becomes, how do we distribute the fruits of production when machines do more and more of the work. Now, two solutions present themselves. The first is shorter working hours, which I've kind of alluded to already. And the second is something called universal basic income. And I'll talk about both of those in a little bit more detail in a sec anyway, where does this leave us at this point? The best case scenario, according to this sort of research is that 10% of current jobs disappear within about 20 years, moving up to estimates of around about 50% personally, I think the 10% figure is liable to be a little bit too optimistic. And the reason I think that is because I think it underestimates the nature of the changes that are happening and why they are qualitatively different to what's happened before.

Tim Dunlop ([15:11](#)):

So there are three big factors driving this sort of shift worklessness first is that the machines themselves are simply smarter. So it's not just factory work and repetitive tasks that can be replaced by machines. Now, cognitive skills, white collar jobs are threatened as well. Everything from, you know, including accounting and law machine learning and artificial intelligence, I will starting to be able to do this sort of work as well. And this is unprecedented. The next factor is what I call the shift from post-industrial. Well, post industrialization that is wealth is being generated, not through making things, but through the youth and manipulation of knowledge and information. And the thing with those sorts of businesses is they simply need fewer employees. So, you know, there's a bunch of examples I can give you. Kodak used to employ 140,000 people and was valued at \$28 billion.

Tim Dunlop ([16:13](#)):

And it's now bankrupt. Thanks to digitization. It's modern equivalent. If you like is probably Instagram, Instagram was sold to Facebook in 2012 for a billion dollars. And at the time Instagram employed 12 people, Facebook itself is the sixth largest company in the U S but it employs 12,000 people. Full-Time, that's all compare that to say general motors, which during the 1980s employed 349,000 people in the U S Alon Netflix employs just over 3000 people, including part-timers. Whereas the CBS television network in the United States employs 16,000 people and Netflix is worth more than CBS. The third thing that's happening is structural change in how businesses work. So we're firms will want slight GM will want standalone, pardon me, silos dedicated to doing one key thing. And so benefited from having a full-time workforce. They are increasingly parts of networks that come together on the basis of given projects, pulling in specialist workers on a short-term basis. So this third point means that even where there aren't job losses per se, the trend is towards casual short-term work. So even if the jobs don't disappear, they're likely to be more precarious. Part-Time casual short-term contracts, that sort of thing.

Tim Dunlop ([17:58](#)):

And this shift is happening already. Recent department of labor figures in the U S show that 40% of the U S workforce is what they call contingent. Australia's most recent job figures showed that 86% of the jobs created in Australia in the last 12 months were part-time in a sense, this seems to be the economy dealing in part with the overproduction problem that I mentioned earlier, forcing shorter working hours onto people to deal with the fact that we simply don't know the same number of people working the same number of hours in order to generate the things we need. Okay. Kind of hold all that in your head. The next question that arises is what is the nature of the jobs that are likely to remind or to be created, which jobs or tasks are easy for machines to replace, and which are I want to point to three broad categories where I think we can expect humans to have an advantage.

Tim Dunlop ([18:58](#)):

And the first of those is what I'd call unstructured work in non-standardized environments, by which I essentially mean things like trades. So everything from plumbing to hairdressing to cleaning. So while some of the tasks associated with various trades like paving or brick line are really highly susceptible to automation, you can go online and see robots doing this sort of work on YouTube. Many are not, and robots still struggle in environments that are non-structured. So they have a lot of trouble like cleaning your house after a dinner party or something like that, or cleaning up a restaurant in the same way. They have a lot of trouble learning to do things like hairstyling cutting hair.

Tim Dunlop ([19:46](#)):

The second relatively safe area are those jobs associated with stem skills that is science, technology, engineering, and mathematics. Now they're far from the panacea that mosque governments seem to think they are. In fact, the nows consultancy group did some detailed work on this last year in Australia and concluded that there simply isn't an under supply of stem skills at the moment in the Australian economy. But nonetheless, these skills will continue to be important. And the final and least examined category at least, least examined by governments and other members of the political class arts related activities far from being an area of soft options and what the junior minister, the other day called lifestyle choices, skills formed by training in arts degrees are likely to become crucial. One organization that's done a lot of in this area is group called humanities 21, who advocate for more arts training in Australia, their director, Peter Acton has noted the most important capability in 2020 will be complex problem solving, followed by critical thinking.

Tim Dunlop ([21:04](#)):

And then creativity Acton says what can't be replaced in any organization imaginable in the future is precisely what seems overlooked today. Liberal arts skills, such as creativity, empathy, listening, and vision. These skills not digital or technical ones will hold the key to a company's future success. And the World Economic Forum reinforced this view with the recent report. They said that by 2020 social skills such as persuasion, emotional intelligence and teaching others will be in higher demand across industries. The narrow technical skills such as programming or equipment operation and control. In essence, they say technical skills will need to be supplemented with strong social and collaboration skills. Perhaps predictably Steve Jobs was ahead of the game. He said at the launch of the iPad in 2010 it's technology married with the liberal arts, married with the humanities that yields the results that make our hearts scene the caveat, right?

Tim Dunlop ([22:19](#)):

With all these areas where they're still likely to be jobs and work is that the structural changes to the economy that I mentioned probably means that simply fewer workers are needed. So it's not going to suck up all the unemployment that's created as we shift from manufacturing to anime. Okay, sorry. Consider what the world looks like. If something like this all comes together and this is where I get a bit science fiction-y okay. Handled wisely there's but there is the potential for automation to push us in the direction of a more sustainable greener economy at its heart. This economy enabled by cleaner energy and the new information and communications technologies moves away from the mass production, standardized and disposable consumption model of the manufacturing economy and towards the sort of consumption that is customized and sustainable. It will be an economy where ownership of products is saying as less desirable than renting or sharing one where if you like products are replaced by services, and we're, we're already seeing this with I mentioned movies and music earlier.

Tim Dunlop ([23:42](#)):

You know, we no longer have the physical object at the, or the DVD they've been replaced by streaming services, bond launch. And you know, another area to look for this same development is in the areas area of driverless cars. If they continue at their current pace then private car ownership is probably likely to go in the same direction too. It'll become cheaper to call up an Uber or whatever. Whenever you want a car, rather than all in a car yourself and maintain a car in this economy, it would be an economy where obsolescence and disposability are replaced with high quality products, kept for a lifetime economists, call it a Paris is this could lead to a very active rental sector for organizing second, third and fourth hand markets in each country and across the world, along with the growth growth of work in disassembly, remanufacturing, recycling, reusing, and other materials, saving processes, she says this would create a business model in which repair and reuse would take the place of planned obsolescence and all of them, all of those areas could be areas of job growth.

Tim Dunlop ([24:58](#)):

And again, there's evidence of this happening already. Thor to really take off, we will need to do things like tax energy and resource use rather than labor we'll have to regulate for durability as some economists, put it and encourage what they call a circular economy, where manufacturers are responsible for the entire life of a product. But what else changes in this sort of economy? Well, for one thing, we're going to need to measure different things, to know how that economy is even functioning. This means not only looking for measures of wellbeing, other than GDP, but revisiting the idea of productivity itself, a metric that made sense in the context of the old manufacturing economy of mass

production, but which makes a lot less sense in an economy of knowledge and information, the value added to the economy by creativity, experimentation, empathy, listening, and vision are not well captured by the metric of productivity.

Tim Dunlop ([25:57](#)):

J K Rowling, for instance, her value as an author and a contributor to national wealth does not improve by subjecting her to a stop watch and imp increased output and into, you know, looking into the past those civilizations that allowed this sort of creative work to flourish amongst particular classes, without the expectation that those people be in paid labor. So, you know, the citizens of ancient Greece, if you like, or the you know, the largely gentlemen amateurs of the British empire they bought for some of the great developments of Western civilization from modern medicine to physics, to democracy itself, precisely because they were freed from the demands of work. Now catch of course their productive leisure was predicated on the oppression of women, formal slavery and exploitation of workers in colonies. All things rightly unacceptable to us today, but you know, this is kind of where the robots come in. It isn't difficult to imagine that machines themselves, robots, artificial intelligence and other forms of automation may be able to create the same effect.

Tim Dunlop ([27:13](#)):

This is not a riskless course. And you know, there are big issues I think, around privacy and surveillance in particular, but it's likely the direction we're heading. Kevin Kelly has not had Kevin Kelly's. The guy who started wired magazine, he wrote in short productivity is for robots, humans, Excel at wasting time, experimenting, plying, creating and exploring none of these farewell under the scrutiny of productivity. That is why science and arts are so hard to fund, but they are also the foundation of long-term growth. Yet our notions of jobs of work of the economy, don't include a lot of space for wasting time, experimenting, plying, creating and exploring. What are you saying is that if you can measure a jobs productivity, you can probably replace that job with a machine. And he's also saying, why not do that? And let humans get on with other things, remember it, isn't just automation itself, the individual inventions, if you like that will ultimately define the industrial revolution that we're going through at the moment.

Tim Dunlop ([28:28](#)):

It's the why automation will work together in the networking effect of all those things interacting. So, you know, the telephone and the computer are individually extraordinary inventions capable of changing economies and they have, but put the two of them together, the computer into the telephone, and you open up the sort of pulse possibilities that are only now just becoming apparent. So, you know, things like Uber and Netflix and the smartphone banking revolution, that's rushing through Asia and Africa at the moment are likely the start of a transition. Not the end much has to go right to achieve this sort of best case result. And not much has to really go wrong for us to get a sub optimal outcome. If you like. 50 years of growing inequality throughout the Western world is going to leave powerful vested interests with no real motivation to be generous and to change a system that structurally favors their interests.

Tim Dunlop ([29:31](#)):

So here's one of my key concerns. And it's often overlooked in the economic discussions about this thing, those things, a lot of economists say, you know, the, the technology ultimately creates as many jobs as destroys. How do we know this? Because that's always happened in the past. And certainly that's

true. The post world war two alignment of forces that led to what we now think of, you know, as a kind of a golden age of the fifties and sixties of prosperity and relative wealth didn't just happen there. It wasn't just the technology that did this. It was driven by a strong labor movement, which almost by definition doesn't exist today. And it isn't clear to me that there is a similar social force that might develop to fuel that gap outside of government itself. It's one of the things we have to think about. I think so if the trend is towards more short-term contingent work, which I think it will be because of the shift from manufacturing to a knowledge economy, then the role of government will have to change.

Tim Dunlop ([30:35](#)):

We'll have to adjust them nauseous. And in particular, I think have a work ethic and stop demonizing the unemployed, those between jobs because in a world of short-term contracts and fewer jobs, everybody at some stage will be between jobs. While the traditional welfare state was itself, the product of mass consumption, manufacturing type economy, a safety net. If you like to catch someone forced into unemployment by the cycles of the capitalist economy, the new welfare state will need to be more flexible. One that reflects the contingent nature of the work that most people will do it. So it will be less a safety net and more a conveyor belt. If you like that eases our journey to the next contingent job. We are called to do this woman a less centralized bureaucracy and less impediments. What we now tend to call mutual obligations to receiving payments. Yeah.

Tim Dunlop ([31:36](#)):

Move on PayPal. Do not necessarily fear contingent work. In a recent survey, 87% of British graduates saw freelancing as highly desirable and assemble a similar number, believed that freelancing would become the norm. Another survey showed that almost half of the young people in the United States would prefer more flexibility to more pie. And yet another, that half of young Australian surveyed were willing to earn income as a service provider on digital platforms on an ongoing basis. But if we want to embrace this sort of contingent short-term model of work, then we have to get the conveyor belt, right? The mechanism that supports us between contracts, I think people will embrace flexibility if, and only if we exercise ourselves some control over the nature of that flexibility at the moment it's top down, you know, it's take the job. A lot of it from the, we have to have more control over it.

Tim Dunlop ([32:41](#)):

And the best way to hand people that sort of control is to pay them a basic income. That is an ongoing payment that covers the basics of life that everyone is entitled to, whether they are working or not only then will people have the security necessary to deal with a world of contingent work. Now, big topic, basic income. I'm not going to go into a huge amount of detail, but the big, the main criticism that's chucked up at basic income is that if you pay everybody money, regardless of whether they have to work or not, they'll become lazy and not bother to work at all. But all the evidence, actual experiments with basic income across a number of years and in different countries suggests the exact opposite because of the security. It provides people on basic income tend to be more selfless in seeking work and actually become more entrepreneurial.

Tim Dunlop ([33:39](#)):

Remember, you know, all the entrepreneurs that we Lord at the moment, there's been a number of studies of what do they have in common? You know, what are the traits that they have in common? The biggest single thing that they all have in common is rich parents. Absolutely. That's that's the bottom line. So it's much easier to take a risk if you feel there's some security there for you. It's the same with

basic income. These people on the basic income experiments became more involved in community activities and politics. They saved the economy money by having better health outcomes. And the real boon is that basic income requires a much smaller bureaucracy because there's no mutual or percussion things that have to be policed and saw sides, the governments and taxpayers fortune. Okay. So is the future really workless? Well we're okay. Yes. Okay. Because you know the future but here's, here's the point where the technology takes 10% of all the jobs or 50% of them.

Tim Dunlop ([34:42](#)):

The fact is that technology is going to keep pressure on workers and they're going to constantly be in competition with robots of some sort or another. This will be true of everyone from people working in fast food joints to lawyers, technologists, Robert, sorry, Norbert Wiener said back in the 1950s, let us remember that the automatic machine is the precise economic equivalent of slave labor and any labor which competes with slave labor must accept the economic conditions of the slide, the challenge, any democracy faces, any nation that values some semblance of equality and fairness is going to have to address the relationship between work and automation. As I said, at the beginning, asking whether a robot will take your job or not, is the wrong question. The better question is what sort of world do we want to live in? That is essentially a political question. And it's how we respond politically as democratic citizens that will determine the path that we ultimately take. Thank you very much. [inaudible]

Barbara ([36:05](#)):

I'm aware that today, Erica Betts, a great non hero of mine actually is out in our community saying that Malcolm Turnbull should show some courage and, and come back to renovating the conditions of work in Australia and revisit work choices and various other things. And I'm just wondering what Eric and Malcolm would make a view and, and your contribution now. I'm not sure, I'm not sure you equate, for example, flexibility with precariousness. And that's just not in my language. That's a big mistake. And I think the condition of precarity for workers is, is really, while people want flexibility, they aren't asking for I in my research looking for unpredictability in their working hours, in our particular income and no access to retirement income for themselves and so on. So I think there's a whole lot of issues in there that some conservatives would find comfort in what you say, and, and others would be concerned. So I'm sorry, that's a scrambled thing, but there's a lot of a lot you're saying that I would argue with, I guess

Speaker 4 ([37:16](#)):

I, I take your point, but the point I'm making is, is exactly to avoid that precariousness and basic income is one way of doing that potentially. And that was my point about maybe people will embrace that kind of contingent work if they've got control over the circumstances under which it happens rather than having those circumstances imposed on them by the, by the system or by employers. So I'm actually very much thinking along the signs on, yeah, if you give, if you give people a basic income, it empowers them to turn down jobs that don't suit them. So instead of having to take it on a Tyco all over it biases because you need the money because you've got no other source of income, giving people a basic income takes that away. And that's really empowering in that sort of, especially in that sort of economy where it's very hard for unions to organize and apply that sort of pressure to employers, these sexually empowers the individual workers to go, actually, you know what, look I'll do the job, but you're going to have better conditions for or any. And if you don't we'll know. So, so actually I think I'm probably might be closer to you. Yeah, I think, I don't think Eric had liked me. I really kind of hope he wouldn't want me.

Speaker 5 ([38:47](#)):

Well my question is how sustainable would be a future where people, you know, work sorry, leave off on a basic income without working full-time and probably not working at all. Where will the funds come from on who's gonna pay for that. It's gonna be the government providing those funds will be the private enterprises, both of them. And then I try to think of that within an environment where large enterprises will use less people. Let's say, you know, on a cotton manufacturing company that used to employ 10,000 people with all the automation, robotics advances may end up using only instead of 10,000. And they say, you know, 1000 there will be 9,000 people, you know, without income. So the companies and the enterprises maybe go into an Inspiral, you know, of declined because it will not people, you know, to buy the goods. So where is the money gonna come from? Has that been discussed?

Speaker 4 ([40:07](#)):

Yeah, for sure. It's a great question. There's, there's a famous story of Henry Ford taking the head of the labor union for a tour of the new factory in which he'd installed a bunch of robots to do construction work in the, in the factory and Ford sign to him, how are you going to get those robots to pay union fees? Ha ha. And the union guy turned around to him and said, Hey, are you going to get them to buy cars? So, you know, it's exactly that sort of problem. The, the issue is making stuff becomes much cheaper. So prices theoretically dropped. So you need less money to start with, but it does to Michael, this work, it does envisage the sort of thing that I think you're hinting at, which is different taxation, regimes, et cetera, in a globalized economy. That probably means taxation, regimes that stretch out beyond sovereign borders. So taxing things like financial floors throughout the world, Thomas Piketty in his famous book recently capital in 21st century, it was called. Yeah. It talks about that as a possibility. So we, you know, there's, there's a lot of stuff that has to be done. In order to redistribute the wealth, we're still going to be creating wealth. It's becomes, that's what it becomes, not a production problem, but a redistribution problem.

Speaker 6 ([41:40](#)):

Yeah. Thanks for a fascinating talk. I'd like to go back to your idea of productive leisure here, the, the human side of it. I mean, you've got to do the subs to make this work, but also, I mean, I agree that most people, I think wants to feel valued, wants to feel like productive members of society. And you made a reference to the gentleman, amateurs, you know, the people of the 18th and 19th centuries who didn't have to go to work. So they create a great art, great music, some nifty inventions on the side, et cetera. Those individuals passed with an incredibly privileged and educated class. I think for most people's realities, if they're between jobs a few months, they feel quite useless and miserable. I mean, if we had this basic income and if work isn't the norm anymore, what sorts of social changes and attitudinal changes in education, do you see as necessary for people to still feel useful and Sylvia?

Speaker 4 ([42:26](#)):

Yeah, it's a, it's a, it's a really huge issue because a lot of personal identity can be taught up in jobs and the work that we do and endure and rightly saw. But you know, again, this is kind of what we're used to in socially constructed and what is expected. This is why I think a big part of it is to start addressing those issues around notions of a work ethic and stop demonizing people not working and apparently not country allegedly not contributing. The experiments in there was one major experiment in basic income run in India under the auspices of UNICEF and monitored bark or GOs standing who is a economics professor at London university, I think. And you know, all the, all the outcomes of pine people that sort

of income where people involve themselves in community work. So there was a lot of self-worth became bought becoming involved in that sort of work, not, you know, not skilled work.

Speaker 4 ([43:37](#)):

Some, some people actually started little businesses. Some people were able to gain a lot of self-worth by actually being able to save a little money and look after, you know, extended family and that sort of thing. I think there's a lot of possibilities around help with this. We already, you know, 50, 50% of activity in the economy is not measured already. You know, it's all stuff that we do in the informal economy, whether it's in our homes or in our communities, et cetera, et cetera. Basic income is kind of bringing that into contention and a lot of people get a lot of value out of that as well. But, you know, I take your point. There's still, there is still an issue around I think, and we're seeing it a little bit at the moment with the Donald Trump phenomenon and the Brexit phenomenon where you know, what mean of a certain age are quite angry about stuff about job losses, et cetera, because it does go so much to personal wealth personal wellbeing. So it is something we have to address. Yeah, that's for sure.

Speaker 5 ([44:49](#)):

Yeah. at the moment stuff is still pretty popular and stuff is still being manufactured by manual labor. However, it's not being done here. Can you see technology returning manufacturing to higher wage countries like Australia?

Speaker 4 ([45:05](#)):

Yeah, that's a good question too. It's already happening. There's this process or this phenomenon that's called onshoring. So, you know, during the late seventies, eighties, nineties, we offshored everything. So it's to China mainly and other Asian countries, because it was cheaper for firms to employ labor, but there but there's, there is actually this phenomenon with big organizations like general electric and Walmart bringing those manufacturing jobs back into the United States, but the catchy is they're doing it because of technology. So it's not actually, I, I, I can't remember the exact figures, but I actually used an example in the book of I think it's the Stanford China hotels for the last 30 years have had all their linen manufactured somewhere in the middle of this because it was cheaper to get it done. And they used to do it in the United States prior to that. And I employed something like, I think it was 30,000 people. It could be wrong. I ran about 30,000 people making this stuff. All those jobs were lost in a couple of towns in middle America and offshore. Now they're bringing the same business back and they ma there, now they're making all their linen in, in in the United States again, but they're employing 4,000 people. So yeah, sure. It's, it's created some extra jobs, but a lot of that onshoring is happening because of technology.

Speaker 6 ([46:37](#)):

Hi one of the crazy things at the moment seems to me is that sort of welfare to work sort of taxation arrangement where, you know, if you're moving from welfare into a little bit of work, you're facing like 60 cents on the dollar effectively on know a higher margin or impact than, you know, the, the highest taxpayers. So it seems to me the basic income scheme gives you the opportunity to solve that and make it easier to transition. Just interested in your comments

Speaker 4 ([47:04](#)):

On it. No, I think that's exactly right. It's it does basically solve that problem. I'm a little bit careful of coming across as evangelical for basic income, because I think there are issues around it, including

exactly how do we fund it, et cetera, et cetera. But in theory, at worst I'm yet to see any other scheme, third dresses problems like you're talking about, which currently exist in the nature of the why that we do welfare master. The expense in administering welfare is in governments monitoring have job users looking for work, et cetera, et cetera. Okay. so, but basic income actually does provide a way of dealing with that. But it's real attraction is if, if we do actually move to a world where there is a lot less work than unless we want to live in the world of the Terminator, then we really have to do something about distributing the wealth that is around rather than just letting it concentrate into the, to the people who own the robots at the risk of turning our organizers,

Barbara ([48:19](#)):

The back federal. I want to have one more, one question before

Speaker 7 ([48:22](#)):

We stop. So quick question quick. Okay. 20 years ago I stopped working in it. Mainframes took a year off and I've never really got back in. I've been overqualified or have been under-qualified, I've done lots of environmental community work and I'm an, a local counselor. So what you said about politics and that is true. But I think whenever I talk to younger people, they are sort of taking two or three part-time jobs working more and more hours. I think there should be a maximum number of hours people can work. So we spread it around a bit because people, once you've been out of work for a few years, nobody wants to employ it regardless.

Speaker 4 ([48:58](#)):

Yeah. And I think cutting working hours on an ongoing basis, Sweden's doing at the moment, they're moving to a four day work across industries. And that was industry led started by the Toyota factory in, in swollen. So I think that's that's going to be one of the ways that we respond to this, for sure. Right.

Barbara ([49:18](#)):

Please join me in thanking Tim for his wonderful [inaudible].

Speaker 2 ([49:29](#)):

Please feel free to

Barbara ([49:31](#)):

Make a contribution to the buckets at the back. Thank you so much for your support for this wonderful event, which deserves your support for future years. Thank you.