Alan Chamberlain talks to Rachel Jacobs

0:02
So in this session, we're going to be chatting to Rachel Jacobs, one of the artists and residents.

0:09
On the Trustworthy Autonomous Systems project.

0:13
And what we've been working on are some speculative designs to highlight and maybe provoke use cases.

0:21
In the development of our use case library.

0:24
So I'm gonna pass over to Rachel now. We're gonna be asking a few questions as we go through. Rachel's got a set of designs, a set of slides, and she's going to speculate on some of the issues.

0:38
That the designing and creating trustworthy autonomous systems raises for somebody such such as an artist or somebody in the creative industries, but also the work that she's created almost acts as acts as a counterpoint or a provocation. And just just to maybe highlight some issues that might not be raised using what might be seen as a more conventional use case. So I'm going to hand you over to Rachel now as we go through this this work and discuss it.

1:12
OK, so my name's Rachel Jacobs and I'm an artist and I'm also a researcher. I did a PhD with Horizon back in 2013, so I sort of crossover many different domains. I'm an interdisciplinary artist. I work across performance, visual arts, social practise.

1:36
I do a lot of participatory community based work and and predominantly make interactive works, installations, design devices and machines and.

1:50
I'm currently developing a module in interaction design for Birkbeck College. So I I kind of crossover the HCI and the arts as well. And I'm really interested in getting involved with this use case library because I feel from my experience of working in HCI since 2005, really it's collaborating with the Mixed Reality Lab and that there's there's a real need for different perspectives and artists can bring that in, particularly when you're working with different communities and different.

2:23
Sectors of society, different places, different regions. In the past I've even worked a lot in Brazil, so bringing in lots of different perspectives, I think it's really important for HCI work.

2:38

Fantastic. And so are you gonna tell us about your speculative, sorry, speculative design? I would try. Or would you? Simple words or you simple words. Yeah, particularly when you're recording or presenting. So speculative design in the context of the use case library and maybe as you go along could you kind of talk about how trust is raised in the context of that for us? And you know, I I know that you've already started to do it, but just.

3:08
Kind of. Could you also articulate how the design, you know, highlights issues relating to this use case library that we're working on at the moment? And I'll I'll just pop in questions as we go along. OK, well, I'll give it a go and.

3:22
Or if I share screen now, So that was some slides. So I did put some slides together. Hopefully I can share them. Can you see that? OK, Yeah. OK. So if I go full screen, hopefully I won't lose control of everything, but.

3:42
OK, so.

3:44
This speculative, speculative design project is based on an existing project called Future Machine that I've been working on since 2019.

3:56
In this image you can see future machine which is an interactive device. At the moment it is not autonomous. It has interactivity, it has various.

4:10
Well, it's run by an app that that does many different things, but it's deliberately very slow, very, quite difficult to use, quite complicated, but deliberately. And I designed it like that. It's very heavy as well, so it's a really cumbersome, slightly wobbly.

4:32
A bit like the Heath Robinson if if you know Heath Robinson's design. Yeah from I think we've seen 1930s, but he was very interested in this idea of mechanisms and bureaucracy that were really complicated. But for me that engenders trust. It helps build relationships and it familiarity because it's flawed and it's and it's cumbersome that people connect to it in a particular kind of way. So I'll talk a bit about that and I've kind of said suggested that.

5:06
Is this a robot or is it a totem? And it's part of my confusion in the design is which direction to go in. This project last 30 years is going to carry on till 2050. It started late 2019, 2020. Obviously COVID kind of was involved and and I need it to become more efficient in order to maintain it myself. I'm going to be in my 70s by the time 2050 hits. I would like it to become more autonomous, but I'm very concerned about the impact on that.

5:42

On the way it relates to people and communities, so I'm just gonna talk a bit about that. So in thinking about this as a use case for Taz.

5:55
And as a speculative design that builds on this existing cumbersome design, this question came up the word autonomous.

6:06
Is very contradictory to the word entangled, which is a word that we're using for this project, that everything in this project is entangled it it's all about relationships, relationships between people, ecologies, places, communities.

6:23
Cannon autonomous system.

6:27
Deal with entanglements. Can you design for both? And I think that's a really interesting question and I hope for the library, is that it brings up a whole load of questions. And what I said earlier about bringing different perspectives in as an artist or or coming from different communities or in different parts of the society, is this need to to kind of confront some of these issues. Autonomy suggests individuality suggests something running on its own.

6:57
But we live in a world that's entangled with nature, with other beings, with other communities. So is that a problem? But at the same time, how do we be efficient? How do we maintain things for 30 years and and?

7:13
Create sustainability. If everything's really hard, work so that so those are the kind of questions that this is raised for me and I hope might raise for others looking at the library.

7:27
So quickly to tell you about the future machine. This is an object that appears in five different places around the country at the same time every year from it was launched in 2019, the official date of the project, starting as 2/2/2000 and 20, and the aim is that it will carry on appearing in each of these five places at the same time every year until 2050.

7:53
It's called the future machine because it captures data and messages for the future and whether data and webcam images from each of these places when it appears and plays them back. It's a kind of container and a witness to these places and how people feel about these places now and how they feel about the future. So it kind of speculates into the future.

8:25
What? What we think might happen, and our hopes and dreams around that.

8:31
And so these are the different places that I've only got 4 places because actually we're going to

Somerset in a few weeks for the first time. We've not actually managed to take Future Machine there because of COVID and various other happenings in the world, which is what it's about, because it's because it is about these entanglements. It is about these things that happen and we try and be responsive to whatever happens as the future comes. Do you do you think just a little question to provoke a response, It's.

9:04
I know that we think thinking about the nature of use cases, it's almost like, yeah, this is the use, this is the task.

9:11
But but here it's when you've got different communities working with a piece of technology. Do they?

9:19
Engage with it in different ways. Does it develop?

9:22
Different sorts of use cases. I'm just thinking about how other task researchers might look at what you're presenting as something which is extremely long term in terms of research, 30 years in different places with different people.

9:37
Entangled in a series of multiple use cases where people are Are they trusting it? Are they distrusting it?

9:49
So we've we've had a lot of experience of people trusting it and the main kind of interaction that people have have, which I will try and jump to, is that people can talk into this small trumpet on the side of of the future machine and kind of whisper or confess or tell them.

10:11
What a message for the future. We ask people to speak to each other through the future machine. That involves a lot of trust because people are recording their voices, so it is recognisable to a point. It gets played out so you can play back messages randomly, but it's captured from the past and people.

10:35
That often confess quite personal stuff it. I mean the messages vary but we've had a lot of quite emotional things that people have left and that needs a certain amount of trust. It needs a kind of connexion and relationship between the person and the device and and what we found from some of the studies we've done about how people think about the future machine is that they feel that it's familiar. They talk about it as if it's their future machine and because it returns.

11:09
Every year, some of the participants in the project return every year as well to meet it. So you're building up a kind of relationship, kind of kinship between this funny, wobbly wooden metal device and the people that that live in a place and fill ownership about the place and their community. So you need a lot of trust in that situation. There are differences and obviously in the urban environments

there's quite different social and environmental issues going on in comparison to some of the more rural.

11:43
Environments in Cumbria, Oxfordshire and Somerset, whereas the urban environments is Finsbury Park in London which is quite inner city and and Christchurch Gardens in Nottingham, which is also an inner City Park. But there's lots of similarities as well.

12:01
So this, I mean it's it's an interesting thing in some respects because.

12:06
Is it?

12:07
Is is there ways that you might use this to sort of test trust?

12:12
Hmm, so I'm really fascinated about if we were to develop some machine learning around. How people interact with it, how it tells stories. So it prints. Let me see, so it prints out little messages.

12:33
That tell you kind of news from the planet. So it's telling you about what's happening now and then invites you to leave a message for the future. So it's kind of giving people a sense of time changes through time and what their role is or how they see themselves as as the world changes. And these these news from the planet that we're calling them. And I'm working with a climate scientist from the British Antarctic Survey to write these news from the planet. Let me see. I think here this is an example of 1.

13:06
And.

13:08
So I write them with John King from the British Antarctic Survey and we trail around research that he, he's involved with news, you know, the mainstream news.

13:23
What's happening in the British Antarctic Survey and we compose these messages and there is actually dials on the ohh sorry I'm I'm bouncing around because it's speaking differently So there's dials embedded in the machine that people can turn and wherever they turn them to changes how these how these news from the planet appear. So I can explain this to you. This says speed to the future considering this moment on our planet nature.

13:57
So that's one of the dials. Survival is another choice from a a separate dial and concern is also a choice from a dial. So that's what the participants chosen. And then they choose on a dial, another dial, different parts of the planet. So the next bit, spring, brought a heat wave to the circle of CI's, least I

ever seen on top of the world in this rainy, warm Arctic spring. So someone's chosen Arctic to the Arctic to get that message. I'm very interested in how we automate how.

14:30
The stories that created where we get the news from, how people trust, what they're reading, how they relate to it, how it then affects what the messages they leave, what we then do with the messages they leave. Can the machine learn from that and adapt what it's saying and how it's dealing with various with the data it catches. We've got loads of information coming in, but at the moment it's really clunky and automated it.

15:03
I think that's quite useful for trust, because people can kind of see the scenes a bit.

15:10
But will it change if it will gets automated and and future machine decides what it's going to say and how it's going to say and what it's going to do with the messages for the future?

15:22
So is is one of the sort of points to put in presenting this.

15:28
As a as a speculation on on a piece of technology that already exists is the reason it's important for a use case library might might be that actually you're seeing something in transition and that that starts to highlight the seams.

15:44
Hmm. Where trust is either lost or more trust starts to happen.

15:50
In terms of what researchers might might might come across this in the use case library. Why? Why? Why do you think this is important to put in?

15:57
In a use case library like this.

16:00
Well, I yeah, I think because it's already establishing levels of trust and communities and impacts is it's creating change. We started doing planting projects. As a result communities have started getting together and building their own activities around the future machine appearing and.

16:23
So if if I go back to this slide, I hope you can read it. OK so.

16:30
What we're trying to build with this is trust in the future, but actually to give people a sense of positive feelings about the future through their relationship with this thing. Trust that it's going to come back every year. It will still be there, that we actually are going to stick to our ridiculous commitment to

appear every year for the next 30 years with this clumsy device and trust in our relationships between the, you know, with our communities, with these particular places that we've we're highlighting.

17:03
By this machine appearing there and the ecologies that exist in those places. So we're asking a lot of this device. Yeah, it's a container of our hopes and dreams, but we have to trust it in order to give leave our hopes and dreams with it. Not everyone does, and in a way you kind of have to be prepared to do it. I've got a script that I say to try and prepare people to do it.

17:32
People have to be brave in order to do it. Not everyone wants to engage and interact with it. So there's a lot of trust there and responsibility to for me as the artist who's managing it all.

17:44
Can I hand that trust and responsibility over to the device? Will people trust the device on its own without me standing there with my script and trying to, you know, bring people together in a really physical face to face way? There's trust in the science behind it, the experts. There's stories that we're building in the technology to work to, to when we turn up for it all to function, for it to be a future machine and not just a.

18:13
Interesting looking object.

18:17
Yeah, trust in the news of the planet.

18:20
Some people look at it and go, oh, I don't believe in that, you know, and throughout my work I've had people who who who believe that the climate scientists have got another agenda and we've all got different myths and stories we tell about the future. And when you when you are confronted with a different story, how do you deal with it? Can you build trust around different narratives about the future?

18:48
And it because we're saying the future machine is a witness to change.

18:53
Who? What witnesses it? Who's witnesses it? You know, what's going into it the moment it's the local people or the people that appear around it and this expert information that is feeding into these messages. How do we build trust? I mean, this is a very current thing and I think it it, it probably works across all the use cases in the library. How do we trust experts? How do we trust the designers of the technology and the people that are interpreting the scientific data?

19:28
All the data that that that these devices contain capture lies so that all these questions are built into the design of the future machine. Yeah, at the moment it's clunky and it's slow and it's all managed by humans.

19:47
So the the question is if we were to redesign it to manage itself.

19:54
Would we solve some of these problems or would we would we break that trust? So is is the trust? I mean, I'm throwing a question out here. Is that is, is?

20:05
Is it the technology that people have tested trusting or is it the? I'd never thought about this before, which is, which is ridiculous because it's one of my things that I think about is that.

20:16
And placing something.

20:19
Could engender trust.

20:22
Because of the people that engage with it.

20:25
And their their set of beliefs and the faith they have in certain understandings in the world.

20:32
So, so when I, you know, when you go on about taking it to Nottingham, I know that place Well, you know I know Finsbury Park well, I know bits of Oxfordshire well, well, yeah, they're all all very different contexts. But there's something, I suppose, what what I'm getting at here is, is it?

20:50
Is it the sense of being in the community and other people seeing other people?

20:55
And it's it's it's not the machine they trust, It's the sense that they've seen other people using it. Is it? Is it you that they trust? Is it?

21:05
Is it is it really that, you know, the narrative that they're believing in, or is it a communal?

21:12
Um, sense. That's pushing them on I suppose. I'll throw in these questions forwards because what what I what I want to know is sort of how do you would you see this as a good fit in a in a use case library?

21:27
Where you might have rather simplistic and and I say that in a kind of positive way.

21:33

Trust scenarios where where, for example, a robot comes up to you and says can I see your passport and you say who are you?

21:41

Or you say, yes, this seems much, much more complex than that. Yeah, it's deliberately more complex than that. And I think that's what brings the trust in because it it, it connects with people many different levels, so.

22:00

So here's an example of everyone coming together to try and bring this thing down the hill because it's a bit top heavy and I don't know if you can see the the.

22:10

How people's faces are This isn't opposed photo This was taken as people were going down the hill. Everyone's helping to get this thing down the hill and people say they love it.

22:22

And I've had many people saying I love the future machine. I love it when it comes to our place.

22:31

I think it is the device.

22:34

That, but it's the device within the ritual of it arriving, of something happening. There's always something that happens around it, whether it's a music performance, a a set of lights, homemade. Well, artists made lights going up, lighting up a tree. There's always some kind of ritual element and we are building stories around it. So we're kind of creating a mythology around this device that is quite mysterious, but people can't. People buy into it. They believe in it. They trust.

23:08

In that story, they trust that it's going to come back one way or the other. I mean, it hasn't always returned, even in the first 3-4 years because of COVID, because of storms, but it always has a presence somehow. There's always something that happens when you make a mini one of these.

23:27

We've made cardboard ones. We can get to Oxfordshire this year through for various various health reasons and and and problems and so the artists that I work with in Oxfordshire made a cardboard one and took it out on a procession. Met people, it met a donkey on the, on the, on the.

23:51

On the way, the lane outside where she she lives. So it it still happened, but it was just a little cardboard baquette.

24:02

So there's something about the device and what it stands for and what it means.

24:07
And so it is interesting that over the next.

24:11
It's 27 years now.

24:15
What happens if it becomes more and more autonomous and that that people focus more on the device and less on the rituals and the Comings Together and the people that are managing it? Or what happens if we do actually turn it into a totem, so we take all the technology out, It no longer does all this stuff and it just exists as a wooden sculpture.

24:39
Now why would that be interesting for the use case library?

24:43
I think those two different directions start to pull apart some of these things about trust and responsibility and.

24:53
Fix around a device, Yeah, Because in a way, it's its own control, You know, you and we have 30 years to try these things out with dedicated communities who've said we love this thing, we're going to stick by it.

25:10
So.

25:11
If so, think thinking about people that might watch this video who are very interested in the technical aspects of the world. Yeah, what things would you You've got this. You've already raised it that you want to automate some parts of it. What what bits would you automate? Because it feels like effectively you're taking yourself out of the equation. But I'm not going to go there because I've not got time. But what bits would you automate and why in a in a kind of brief this this this this this this.

25:43
Yeah. OK. So I'm I'm just clicking through the slides to the kind of design challenges that I've been working on and around this project. And so there's quite a few of them. But so one of our thing, one of the issues that we're trying to deal with is how we have assumptions about the future. And this is represented by the four dials that are embedded in the project and I'm using some work from a climate scientist.

26:16
Mike whom about myths we hold about the future? I would be really interested in how we could.

26:25
Develop some machine learning around.

26:29
These myths and our understanding of the future, so that.

26:37
Potentially, the machine can respond to different messages that people leave. It can print out different stories for people in different places. It kind of learns about the communities and the places and feeds in information from the news around the world, research around the world, what's changing in the world, how the temperatures changing, and plays with those myths in some way to create new stories.

27:11
About the world.

27:13
So that that sounds quite vague, but I would be really interested at with this as a starting point point how we can play with our assumptions about the future, but how the machine can do that rather than me sitting down with the climate scientists and trying to pick it all apart.

27:29
Does that make sense? Is that clear? It does, actually. I I think it's it's really interesting about.

27:35
I think one of the things about speculative designs is is often they're based on certainly if you look at Paul Coulton's work it's based on the reality of now or or look looking. I don't know what are they thought is it Mark marching.

27:52
Towards the past, you know, or I I can't remember the exact phrasing by Marshall Mcluhan, but there there's there's an interesting.

28:02
Thing I think that's happening here is what happens when you do try to create trustworthy autonomous systems in that.

28:11
When you when you try and think about the application of something that's perhaps not autonomous and you try, and I'll coin a phrase, automize it.

28:22
Then then what? What happens? And?

28:25
I think it's fascinating when you bring in ideas around community and and certainly with this obviously it's.

28:31

It's it seems to be faith-based. The one of the questions that I've got because I don't want to go off track and I do go off track easily is do you think that going back to your previous slide?

28:46
Do you think that methodological approaches such as this that perhaps aren't seen as?

28:53
I think scientific is the wrong word because there's lots of discussion about what science is. Um.

28:59
But do you think approaches like this should go into the use case library, as in this use case? These are the sort of things that we're thinking about based on this literature which comes from a Suppose this course is around climate change and religion. In this case it looks like.

29:17
Yeah, I mean, I think Mike Hulme has brought in some.

29:23
Some biblical references into this and actually the the bottom.

29:31
Ohh, I've forgotten the Marshall. I can't remember can't remember the reference, but that it's a book called Carbon Detox that talks about roles and responsibilities for the future, which I think is also interesting. So I've combined those two things together.

29:49
I think it's very important to to bring in.

29:54
All human relations are our understanding of psychology, of of human behaviour, and particularly when you're thinking about the future because it's not written yet.

30:06
And we're basing it on a combination of of what we know now about the present and what we project, the evidence we the models we can create based on now and what's happened in the past. So we don't know what's going to happen. We have a set of assumptions. We have a set of evidence which points to probabilities or climate scientists, call it, call them projections.

30:35
And it's a very difficult thing to predict the future. Yeah. Yeah. And have any feeling about the future. And particularly at the moment, I think lots of people are struggling with feelings of despair about the future. So certainly if you're in the myth of bringing on the apocalypse, Ohh, yeah.

30:55
Or even lamenting Eden so.

30:58

So we need to investigate those assumptions. To do that, we we can't be fixed in our in our attitudes. So how would a machine learn to reconsider assumptions, existing assumptions, because at the moment, I mean a lot of the criticisms of AI is that it's based on biases and assumptions and knowledge that already exists. So how will we confront actually they may be wrong and how do we build into our design?

31:33
A kind of a way of revealing where the problems might be in those assumptions. Do you see that as a gap that might exist in and And what what I'm trying to do is obviously, you know with with the trustworthy autonomous systems hub, the project and the new responsible.

31:54
Eye project. You know these are interdisciplinary projects.

31:59
So do you, do you see some of the stuff that you're presenting here as part of your speculative design and what it's raised for you as having a a a methodological approach to understanding some of the some of the issues that people have in terms of personal beliefs? Do you do you see this as useful to to other researchers? And, you know, if I said to you, well, why should I stick that? Any use case library, it looks like you know?

32:27
Some some framings around, you know Babel and Jubilee and Apocalypse and you know it's a bit sort of.

32:35
I don't. I don't really get it. What would you say to me?

32:39
Um, I think that we're not all the same and we know we're not all the same. So here's an example. I'm going to jump forward to Finsbury Park in London. This is the future machine as part of the music performance that uses the weather data live.

32:59
To create sounds in response to the weather with this group of musicians, some of whom so Alex, who's the main musician, is from Burkina Faso and a lot of the community and Country Park are actually from West Africa or very multicultural.

33:19
Their perspective on the present and the future is potentially very different from the designers who are using the use case library. Not necessarily. I'm not saying that there aren't people with W African heritage who are, who are not going to be using, who are going to be using the library, but those kind of perspectives on.

33:42
On what's happening now in terms of climate change, in terms of our world changing and what we presume or or imagine for the future.

33:53

At Potentially different, those voices aren't necessarily normally brought into use case scenarios for interaction design for AI design. So how do we bring those voices in? Because they are potentially users of our design, so if for me, they are one of my communities that I'm working with.

34:15

So how do we bring those voices in those understandings, those perspectives on nature, on on the future, on on the weather?

34:28

Alex's family are a traditional rain makers from Burkina Faso. They've got a very specific, traditional perspective on weather and the relationships between weather and the forest and trees and and communities.

34:43

You can dismiss that and say that's not relevant, but they are potentially your users, so how do you understand?

34:51

Those ways of thinking within.

34:54

Within a design space, I I think it's it's it's a really, really valid point, isn't it? How do you get a range of perspectives in order to enable people to thoroughly understand?

35:07

Technology across contexts and beliefs.

35:12

What I'm gonna sort of seek into here is so how does that relate? I can see how that relates to the use case studies and I can see how that would be really interesting for lots of people because it immediately makes you think about right. How am I going to test this? Who with? Why? You know, all the kind of control and power dynamics that go on in in user testing and evaluation and different sorts of understandings.

35:35

So is is, is our what is what you're suggesting a kind of a way into responsible research and innovation? Would you like to say something about that?

35:45

Yeah.

35:46

So.

35:48

I think responsibility is is really key to, particularly when you're dealing with a 30 year project, you know, you have to think about responsibility. I did have a slide about responsibility, yeah, but how I imagine this was going to go is very different so.

36:11
Building in designing full responsibility to these different communities.

36:17
To environments so often we we think about responsibility mainly as to the user, the human user. But what's the responsibility that we have as designers to our ecologies, to the places where this may be imposed. So one of the things I was looking at was longitudinal research. In HCI it's often about putting a a a fixed device in a fixed place, like putting a a interactive fridge in your kitchen.

36:50
And those relationships between the the fridge and the place and the people are going to be very fixed, but if you're putting something.

37:01
In in a different kind of context. And that thing is going to be changing with the place and relating to lots of different communities and different spaces and different colleges, you have to design very differently.

37:16
But also actually thinking about a fridge in the kitchen, the relationships of the fridge before it even gets to the kitchen and the power and how the energy that he uses. There are many more responsibilities than actually your initial vision of an interactive device or an AI device that is just relating with its user. So I'm asking in a way people who visit the use case library to consider these relations beyond.

37:50
Just that interaction between the AI or the the interaction and the user themselves, because it's in a much bigger world than that is existing. Yeah, absolutely it is. It's it's a big world with a multiplicity of entangled issues beliefs. Hmm. Ohh. I was gonna say what as as we're we're heading towards.

38:15
Finishing there are a couple of things that I I'm gonna ask you to briefly say both Both nice things one one of them is that Rachel's gonna have a another use case about.

38:30
The Mirror.

38:31
If you could say a few words about that, because that will be in the use case library as a document that people can dig into.

38:37
Hmm, so the interactive mirror project I did was designed with similar ethics, similar kind of questions around trust and responsibility and privacy that dealt with privacy in a slightly different way. It's a 1 to

1 experience primarily primarily, and the core artwork that I created was an interactive device. Let me see if I can.

39:08
If I can find an image of it quickly, um.

39:14
Uh, so the project was called the Museum of the Mirror itself.

39:19
And let's see if that comes up. Uh.

39:25
So the main design was.

39:28
It was actually a triptic mirror. So you had three mirrors. The central one was interactive and the other two were just normal mirrors in the interactive mirror.

39:40
There was an app running it that was a meditation app. So the idea was that you would have a mirror at home and you'd look in the mirror and it would try and calm your heart rate, so it would act as a medical certificate variance. But what I was interested in was the whole issue of trust around our relationship with our reflection and what happens if you start capturing data about.

40:03
About your reflection and that there's someone watching you from inside the mirror. There's a whole bunch of questions and someone trying to diagnose you potentially. And this responded to the Task for Health project, which was looking at interactive mirrors. That's diagnosed diagnostic tools.

40:24
Main screen and close off the presentation then. Ohh OK I can I I'm not gonna share anything but I'm just a keen. I mean this is that that's fantastic because I think sometimes you don't have to share as a picture you know this might work although yeah great. Yeah. OK. Sorry, I thought I was showing you that but it wasn't what we want to do really. I mean for all the people that are going to be watching this is at the end of the video there'll be a link to the use case library So just want to encourage people to go and have a look at the the input.

40:58
Or that that Rachel has done on this and I meant to input into the library and and add your own use case as well because some some of the stuff is is fascinating. I I'm going to I'm going to hold you there for one second Rachel and just just go back to main screen again if you can. Yeah and I don't know if you could just say a few kind words about why people should go and look at your work in the use case library and put their own work in.

41:25
And look at other artists. I mean, I I don't. It's up to you what you say. I mean if you, I'm sure you can think of something.

41:34
I think it's good to challenge our assumptions about technology and.

41:41
And the way we met, we designed technology. I think it's good to to try and consider other perspectives other than our own perspectives when we're designing.

41:53
And so I feel that these two works that I've I've done and and and am developing in speculative ways.

42:03
Helps to raise some of those questions in a very practical way you can actually experience.

42:11
The the difficulties and the issues, they're not theoretical. When you interact with these devices, they you actually have experiences of being challenged around responsibility, trust, privacy, and.

42:26
And I think that embedded or sorry embodied experience of a difficult issue can work just as well as the theory. So I think that's what artists had. I think that's why it I would be very interested to see how people can use this examples to help their designs but or to not help but to to kind of challenge ideas and and I think the more different perspectives we have.

42:59
The the better our designs will be.

43:03
Fantastic. Thanks very much for for that, Rachel. Really, really, really interesting work and I think it's really stimulating.

43:12
You know, it's thought provoking, interesting, raises lots of issues and I think anybody that watches this video and then goes and digs into the use case library, you know, it's just going to give them lots and lots and lots to think about. So, so a big thanks to you from.

43:26
From the task project and a big thanks to you from the Use Case Library task project as well.

43:33
Well, thank you. It's been really nice to be able to present this work in this context and help me to think more deeply about some of these questions as well.