

Prof Paul Coulton and Dr Michael Stead

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Introduction 00:04

Hello, and welcome to Design Research with Imagination, a podcast from ImaginationLancaster, the design research lab at Lancaster University. This episode is a conversation between Professor Paul Coulton and Dr. Michael Stead, where they discuss the cost of the cloud, should design always be human centred, the right to repair and spimes. Design research in Imagination is based upon different ways of doing thinking and interacting and takes an open ended and interdisciplinary approach that celebrates the multitude of ways people conduct design research, and how this research will be seen, heard and acted upon. Listen and enjoy.

Paul 00:48

So do you want to go first, or shall I?

Michael 00:50

you can go first bud.

Paul 00:52

Okay, so I'm Paul Coulton. I'm the chair of speculative and game design at Lancaster University in the design school. Probably it's worth saying what that means. I guess, game design is probably obvious. And that's what my background is essentially, as a game designer. And speculative design is a kind of approach to design that looks at futures, and particular future worlds. So in my head, maybe not anybody else's they're joined together by this notion of building worlds. So in games, you build worlds. But in speculative design, you also build future worlds. I lot of my future worlds are based around the emergent technologies and thinking about what work the world is going to be like, when these technologies become every day and in our kind of mundane realities, you know, something like you use your car every day or your washing machine every day, you no longer think of these things, particularly as technologies, you just think of them as a kind of everyday item. So when we have new technologies around and say artificial intelligence, this will become a mundane reality for us. In many respects, it already is, you know, your recommender systems on Netflix and Prime are already kind of mundane versions of AI. It's just that we don't think of them that way. It's just pointing us at some that we might like to watch. But they are artificial

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intelligence and probably, it's a different than we think about in terms of artificial intelligence is killer robot of Skynet, and Terminator, which is probably how they're most things that come to mind. And, but they're also a kind of everyday reality as well, in the sense that when we think about the future, it's not just based on these new technologies and what they might be, it's also the myths and, and images we're seeing. And we're and we're bombarded with images of killer robots and the matrix. Because generally, that's way cooler than actually just getting recommender systems on your browser. But so much of my world has been while is around kind of thinking about what these worlds will be like, what the challenges for society are, and whether we actually really want these worlds. You have to remember that most of the companies that are talking about these worlds are invested in the in the future that they want to do, because they will make money out of that, which doesn't mean they're necessarily the most beneficial our society, particularly in relation to climate change, or using precious resources, or whatever it may be. So I think much of what my work does is challenge these kind of corporate norms of what the future should be like and allow us to ask people interesting questions about what is the future they want? And how should we get there? Or what may it be like when we actually arrived? So I think that's probably enough of a rumble for an introduction. So, Mike, do you want to say something about kind of your work and what you do?

Michael 04:25

Thanks, Paul. Yeah, my name is Michael Stead. I'm Lecturer in Sustainable Design Futures at Imagination, Lancaster University, the design school. So yeah, my work has a lot of crossover with what Paul's just talked about, particularly in terms of looking at the future of things like climate change, use resources, sustainability, so I have a particular focus on how design can help society to understand the implications of adopting new technologies, data driven technologies, things like Internet of Things, artificial intelligence and edge computing, how these can help us to, if we better understand these technologies, how we can potentially move to, towards achieving things like net zero futures, and circular economy goals. And yeah, I, as Paul's explained very well, this idea of speculative design or design fiction, using design techniques to think about these future sustainable futures, both positive and negative, and using those techniques to kind of engage people, whether they be citizens, or technologists, or civic leaders to talk and debate and think about the implications of technologies and what we can do to, to lessen the impacts as as we move towards targets like net zero and circular economy.

Paul 06:01

Is it worth perhaps saying something about defuture in this point, Mike, and how they're kind of futures also defuture?

Michael 06:11

Yeah. Is this a great concept defuturing. Tony Frey talks about defuturing in his book, which believe is from 2009. And it's this idea of, by creating futures, or by using design to create a future, we potentially defuture other futures. And it's this idea of like, kind of thinking about what we what we might put in place that can have an impact and

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implications for all the futures, alternative futures. So we often rush to adopt technologies because of, you know, the economic benefits, there might be potentially, you know, user benefits or benefits for people, things like health technologies, but we often implement these technologies and sort of, you know, across the board, and without really ever thinking about the kind of implications of what that what might transpire by adopting these things. And there's this idea of defuturing, which is a great concept of thinking about, you know, instead of just adopting, we can kind of begin to debate and discuss what alternative futures could exist if we weren't just to rush and just adopt new technological infrastructures, devices and systems. Paul, you've been looking at defuturing, as well.

Paul 07:42

Yeah, I think my favourite probably, quote, comes from Tony's work is that this notion that designers are probably often relatively ill equipped to consider what the consequences of their designs will be. And often that we're driven by a particular design brief, to make something more efficient, faster. And often, that comes at a cost because you're using resources, you're potentially doing some of the workforce out of a job, which is, you know, a debate we're having around AI, you know, by creating something that makes something easier and efficient. Are you doing someone out of a job? But and also, are you limiting the potential effects of that? I mean, it's, it's quite interesting in that regard, in the, in the relation of AI is whether AI is particularly a forward looking technology, and that really requires a history of data to work upon. So in other words, this is why we end up with so many problems around bias and problematic profiling of people because our history is littered with that, and they were biased to this AI on historical data, then there's a chance that actually we imbue those qualities in the future systems and just the future, a more open an equitable society. So I think it's that notion of forcing designers to kind of think about the unintended consequences. Although it's not always that easy, but it's a kind of discipline that tries to force you to do that. So I think, when we often talk about futures and alternative futures, in some ways, we're also thinking about the defuturing of what these kind of corporate visions of the future from our societies and whether that the it's worth that challenge. And I think that's particularly interesting with relation to Mike's work around sustainability in that a lot of the applications that we currently see are kind of solutionism in that they're solving problems that don't really exist. So I wonder there, Mike, if you want to expand on that a little bit and talk about kind of your work around gizmos and spimes for a little bit about how that kind of rethinking where sustainability fits in gadgets is required.

Michael 10:31

Yeah, sure that that made me think about spimes and gizmos when you just said that as well. Yeah. So there's this idea of spimes, Bruce Sterling's concept, which is from the mid noughties, and I did ended up doing my PhD, centred on the idea of spimes. So they're kind of a class of future manufactured objects, which, as we've come into the last decade, it's quite synonymous with the Internet of Things, connected object that is able to be tracked and traced throughout its lifecycle to have a lot of problems with e-waste. And, you know, since you know, mass production began, early to mid 20th century, you know, electronic goods, manufactured goods, have created a lot

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of e-waste, and using spimes as a lens to look at obsolescence, planned obsolescence and electronic waste was something that I worked with Paul, for my PhD. And they can sit as the kind of contrast with the idea of gizmos to the IoT, the Internet of Things, connected objects, at present, tends to be a lot of kind of these gadgets or gizmos, things that as Paul said, a kind of solutionist for solutionist sake, they kind of hook up an object up to the internet, and it generates data. But often the kind of the reason for doing so isn't particularly well thought through. And it's kind of just doing it because it's, it has commercial benefits for the company that produces it, being able to use the data, sell data or on or use it, use it for marketing, often the functionality of these objects is tied to being data driven as well, which creates problems for obsolescent obsolescence problems. Because once you know, as we know, a lot of devices need to be received software updates quite regularly. So when is the point of which they reach the point where they can't be updated to the new software, it means that they become obsolete, and they can't function as they were intended. So the spimes offers this kind of idea that, you know, we could potentially design these devices to be connected. But the connectivity is used as a means to make them more sustainable, and improve their life cycle. So this gets into some of the work that I'm doing with colleagues, including Paul, around repair, and upgrades and customization of devices. If we can track parts, components, devices, throughout the lifecycle, we could potentially make them more sustainable. But unknown. On the other side, some of the work have been doing as well looks at data. So there's this, there's there are problems around that fact, potentially kind of linked to what we just been talking about with the defuturing. With this kind of, you know, they might be equal, you could potentially design this new future that's built all around kind of spimes, but in in the same breath that could do the future, or the sustainable futures because the spimes are data driven objects would, you know, use a lot of data to run. So that will also have a big impact. So whether that impact negates the sustainable gains is problematic. But that's the point of us using techniques like speculative design, design fiction to kind of begin to explore these kinds of futures build these future worlds, using design prototypes to sort of explore them and get people to talk about them and think are these better than what's happening now? If we were to implement this, would it be better than this other alternative that we could also show you? So I think that's the kind of benefit of design because we can kind of visualise and prototype these types of futures. And that's what other disciplines potentially can't always do, because they often focus on the kind of, you know, very much the short term, what can we put in place to kind of solve issues?

Michael 15:13

What's the kind of market or the, the, you know, economics around that. And with design, we can begin to kind of look a bit, not too far future but a bit more, you know, more possibilities and the pluralities of, of different kinds of futures. So I think that links, Paul, with what you've been talking about in terms of, you know, I know you were talking about AI, there's also that this kind of plurality, there's, you know, there's, there's many features that could come

Paul 15:43

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Yeah, I think, yeah, I think that's a good point, I think it's, what we're doing is helping concretise these futures for people. Because to use a kind of Marshall McLuhan, quote, we look through the future in a rearview mirror, and we march backwards towards it, in that we tend to view the future from what we know now. And for most people, it's actually very difficult to actually imagine something that's radically different, perhaps while it's why there's this kind of common quote, that it's harder to, and easier to imagine the end of the world than the end of capitalism, because our whole kind of ethos is built around it. So it's very difficult to imagine economic futures that are not based around what we've seen, and by helping kind of concretise, alternate approaches, yeah, help people kind of lead into this discussion of what futures could be a might be that is potentially different from the imagery that they're, that, they've already be presented with it, which are often these kinds of corporate visions that present something in a way that does it. And I think that's particularly one aspect of the pluriverse reverse, but in the sense that they are allows alternate visions in the sense of not just a white western view, but a few from different cultures, different genders, different ethnicities, they all have a different relationship with the future. And I think it's, it's important to incorporate those and also, maybe thinking about more than human futures in the sense of if the planet is something that we have to represent in our design as a potential, maybe user or stakeholder within the design process, we often forget, often kind of design briefs as presented from a very particular perspective that you're addressing a particular client, whereas actually, we don't think about the other stakeholders who might be the planet in terms of the biodiversity that might be limited. You know, it's interesting, we think about data as kind of a theory or concept that doesn't really have a footprint and then the data is a material, it instantiates itself in servers or farms, it takes energy takes power, all these things are limiting the potential for other things to occur. You know, there a giant server farms in deserts around the world. But we don't think of them that way. We talk about the cloud, which sounds lovely and fluffy, and what harm can a cloud be, but actually, it's a material, it has an effect. And when we build these things, we're digging up mountains, and we're digging, or we're digging mines, and that's having an effect on the planet, you know? And do we should we be thinking about the mountain as part of the stakeholders, the things that live on it, the weather, it can change, the soil, all these things are actually part of what we should be thinking about in design going forward. And I think this probably leads to our criticism of human centred design as it's been espoused for the last 20 ideas, maybe in that it puts the needs of the human user at the very centre of consideration. And that's arguably not doing us any favours, because often that manifests itself in terms of simplicity in the old think about it's the task, not the tool. And actually, we're not thinking about the damage the tool can do. We're just thinking about how fast and efficient we're completing our tasks. And so, by broadening out to this kind of pluriverse of perspectives, allows you to think about these kind of hard to imagine concept of what, what, what's it like for climate, what's it like for and the planet by taking these resources and using them, then they say what are we deprived in as a consequence of that. And so, we opens up designed to these bigger debates, and maybe the consequences will be there'll be less design in some areas, which, as designers, we should always be prepared to do that and say, actually, probably in this case, is better not to do something, rather than, again, drift into this, perhaps solutionist mindset of let's solve the problem? Well, we just have to decide what that is. And we might not always get there, right. Anyway.

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Paul 20:44

So, I think that's why I say as well, I think, Mike and I have been become kind of really preoccupied by the ideas of repair and maintenance, which I'm old enough to remember repair shops on the high street, and we used to rent televisions, and there was a bloke that you could take stuff to, and he would mend it. And that's disappeared. And arguably, that's something we need to bring back but we need to also design for those things. You know, we build products that aren't designed to be taken apart. They they're designed generally just to be scrapped. They're not designed to be taken apart, there's little, companies hold on to the details and the data about these products with almost a kind of passion, that doesn't allow for people to go, oh, can I tinker with that? If you do you know, you're often told no, you'll break the warranty, we will fix it for you. Where actually we shouldn't be moving away from those things. But it's probably going to require a change in policy and regulation to allow us to do that. Because I don't think, again, it's about breaking these bigger models. And thinking about alternatives in that way that I think is what we're trying to do. And I think what probably makes my current work and the forthcoming work is going to explore in more detail. Want to say somewhat briefly about the repair shop. Mike?

Michael 22:24

Yes, the Repair Shop 2049. So that yeah, so that that link to what you just been talking about Paul? So say, do you have, you know, future repair services or repair models looking at kind of the future of smart devices. That is going to you know, there's currently billions of them being used, and that's only going to get worse? The impact of using billions of billions of these devices? So yeah, it kind of brings into a lot of what are you just been talking about is kind of this old, this older model of kind of kind of repair services that we used to have, where things were designed to be looked after and repaired, and elements, you know, reused. And the Repair Shop for 2049 is going to be we're going to be working with Making Rooms in Blackburn and look at this idea of social community repair. The major uses of is a Fab Lab, a fabrication laboratory in Blackburn town centre. So they use a lot of emerging tech to things like 3d printing, to design and build and also repair devices. So I think they'll be a great partner in kind of looking at this space, this is all kind of linked to the idea of right to repair, so that's, when you've talked about policy there. There's, you know, ongoing movement and transition to this idea of a right to repair devices. So there was the European Commission and 2020 built in some new legal framework, some new policy, which came into effect across the EU last year, July 2021. Which gives citizens some right to repair their devices, particularly like washing machines, dishwashers, TVs, but it's limited still, it doesn't go far enough. You know, we understand this. It's there to try and avoid planned obsolescence of these objects, these physical goods, but it doesn't cover things like smart devices or Internet of Things, connected objects, which are only growing in kind of numbers of use. People are adopting these things. is all the time. So that's, that's an area that's been kind of ignored at the moment. So yeah, the repRepair Shop 2049 is kind of looking at the future of repair feature, right to repair, trying to decentralise repair and, and to localise some of the some of these aspects of repair. Because obviously, as we've talked about, you know, there's this, these corporate corporations, big companies are in control a lot of the time and the right to

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repair give citizens the ability to repair some of these, these, some goods. But I think there needs to be more kind of decentralisation more localization more giving communities the right to sustain, how they use, reuse these objects. So I think that's, that's kind of what that project is going to be looking at. So that's starting soon, I think it's going to be really exciting thing to be to be looking at with the Making Rooms and Blackburn.

Paul 26:00

Yes, I think, there's an aspect of the right to repair doesn't necessarily give people the skills to repair. I think that's something that we want to explore through this as well. Maybe thinking about, what is it we're going to train people far in the future and what skills they were going to need? You know, IoT products are kind of interesting, because they're a mix between hardware and software. And while it's relatively simple, to update software, update in hardware is a more problematic notion. And we're in the odd situation now where we're kind of buying smart objects. But that hardware can go into obsolescence and the company like, say, the sonos speakers, they were after a point they get bricked. So you've just got this expensive lump of electronics that you can't do anything with. So what is it that we need to skills? Is it do we need to get the companies to hand over the details of how to they might be reconnected to the internet and used across a different service is that something that we need to guarantee in the rights, that is not just giving people the right to repair that in the future, the model, they may, you might have to make the details of the device open source after a certain time so people can actually use it. But that's going to require significant policy change, and also equipping people with the skills. And it may be that, you know, we need an equivalent of a car mechanic for future products and devices. So we reaffirm repair and maintenance as skills for the future. Which we seem to have lost even if you look at cars now that are globally, they've got more complicated, you need fancy machines to do simple service, to update the software and whatever. And actually, it's almost deskilled, some aspects of the traditional mechanic being able to look at almost any vehicle. Electric vehicles bring in their own challenges. And actually, you're probably closer to an electrician than you are at another thing. So I think all these kinds of futures aren't just about technology. They're going to profuse or require profound changes within society and the way we do things. And design has a role in this thinking about those are enabling people to ask the tough questions. And get away from the shiny vision that just chromium plated and whitewalled where everything works seamlessly and beautifully. Whereas actually, it will be messy in our because we all have houses full of really old stuff, really new stuff. We don't have this point in time where we suddenly get rid of all our old stuff and buy in new stuff here, perhaps would be nice, but it's not the reality whether we live in. And actually design, for me is one of the few disciplines that embraces that kind of messiness, and allows us to think how do we embrace the mess and work within it rather than trying to produce a nice clean point and say, Oh, we're not, we're not bothering with that anymore. Just scrap it thing, and we actually asked to get stuck in and say, yeah, we've got to maintain these things. We've got to repair them. That's the only way that we're going to make change. So the habits that we've gotten into around producing things that have very limited time lifespan, and the amount of electronic we waste reproduces renders alone. Our UK Government much hails it's green credentials, what a lot of these figures don't count is the waste that you import by buying goods from

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overseas and the manufacturing costs that go there. So actually, we're importing tonnes and tonnes of electronic waste, which doesn't go off on our figures. We, because we're not manufacturing that. And we could be doing more to offset that by making more of repair and maintenance, I'm probably ranting and rambling now, so I'm just wondering whether it's at a point where we should think about closing it.

Michael 30:39

I think that was good. Paul, I was just gonna say that's, that's kind of like, yeah, that that's, that's, you know, that's a lens or a point of exploration for the Repair Shop 2049 project and moving beyond that. This idea that, you know, there's local production and consumption and repair. And that's what I think kind of a Fab Lab, but it can be central to that kind of future. Because, you know, they, they do that thing, they do those kinds of things locally. They're engaging the community, in that they work with lots of different stakeholders. And that's what the project is going to do. It's going to be working with citizens, repairers, makers, technologists, and people with the council. And because the hearts of community does that kind of this idea that you're talking about, you know, who's going to do that who's going to do it, it might not necessarily be citizens themselves, it might be, you know, the skilled, there might be, you know, opportunities, and new economies, new markets for kind of skilled people, skilled workers, who can, you know, repair these kind of goods, as that's their, their kind of day to day, the day to day work. So, I think that's, that's why it's quite, quite an exciting area to be, for us to be looking at.

Paul 32:03

Yeah yeah, it's a valid point, it's interesting, you know, we talked, we talked about the reinvigoration of the High Street. And it's, you know, couldn't there be on the high street be these kind of repair shops and maintenance and things. So you go in and have a coffee and let somebody mend something, or repairing things, maybe that more kind of sustainable are really, really and future far high stakes actually to look back at some of these things that used to exist. And see whether they're actually we've lost something by defuturing the way we manufacture that and actually, that was potentially a really good one.

Michael 32:51

Yeah, exactly. I think, you know, that's it, isn't it, we've kind of created this, this present that as the future or the past. So, you know, potentially some of those things had had benefits that we didn't see at the time and we've kind of adopted all these infrastructures and that aren't sustainable. So, lost futures basically, aren't they? So, yeah, you know, there could be potential to look back at some of those things, which we are doing with the repair shop, you know, looking at all the kind of that's some of the sort of influence, old repair kind of strategies and repair shops and things like that. So

Paul 33:30

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yeah, perhaps at this point, we could drift into an ending of the Sex Pistols No Future and then call it in. Okay. Bye, folks. Thanks for listening.

33:46

Further details and links about what has been discussed in the show, plus a transcript and information about how you can get in touch with us or in the show notes. Do check out our website where you can discover links to other episodes, and more about Imagination and the people we work with. Thank you for listening