The Flow of Urban Life – a podcast by KONE – Transcription
Connected Cities: Predicted Trends

Sam Hughes 0:00
Imagine a sustainable city filled with lush green parks and public spaces where orders are delivered to your apartment balcony by drone, and schools, libraries, and workplaces are all just a walking distance from home. A utopia perhaps? The World Health Organization would call it a healthy city. They define a healthy city as one that continually creates and improves physical and social spaces, helping residents reach their full potential. Technology has long faced scrutiny for its negative effects on our well-being. But what if it could help us connect with our surroundings on a deeper level?

Sam Hughes 0:50
Welcome to The Flow of Urban Life, a podcast by KONE that explores how urbanization and digitalization are transforming the way we live, work and commute in cities. I'm kicking off this new podcast with a three part miniseries that examines how connectivity can improve urban living. I'm your host, Sam Hughes, and today I'll be talking to a leading futurist about how the digital world and connected world could transform our lives. I'm joined today by Anders Sörman-Nilsson, a Swedish-Australian futurist and the founder of the Sydney-based think tank and trend analysis firm Thinque. Anders is an awarded keynote speaker who helps leaders decode trends and decipher what's next. He is a member of Ted Global, has published three books on digital transformation and innovation, and was nominated to the World Economic Forum's Young Global Leaders in 2019. His futurist thinking has been shared by the likes of Wall Street Journal Financial Review, Monocle, BBC, Esquire, and ABC TV.

Sam Hughes 1:55
Hi, Anders, thanks for joining me today. How are you?

Anders Sörman-Nilsson 1:58
I am well.

Sam Hughes 1:59
Excellent. And what's it like in Australia at the moment?

Anders Sörman-Nilsson 2:02
I'm dialing in here from Sydney – from the future today, literally – and things are looking pretty good. You know, I'm living in a place called Avalon on the northern beaches in Sydney, where we had a COVID cluster, which by Australian standards means 150 people, which has since been contained. So we've had life in lockdown 2.0 here but merged fairly well out of that. And so I think we're kind of blessed here in Australia with being an island and having a very good digital track and trace system. So I think we're a little bit ahead of the rest of the world at the moment, which we're very thankful for. And particularly when I reflect on my family in Sweden and other places around the world.

Sam Hughes 2:45
Yeah, I'm happy to hear you're safe and well, and hopefully the rest of us can catch up to Australia there in the future.

Anders Sörman-Nilsson 2:50
Well, that's where we're all heading – the sun sets in the east, right? Or the day starts in the east.

Sam Hughes 2:54
Exactly.

Sam Hughes 2:55
So I'm curious, how did you end up becoming a professional speaker?

Anders Sörman-Nilsson 2:59
Well, I think I've always enjoyed storytelling, and particularly, you know, data-based, science fiction storytelling or extrapolation as it were, taking current trends and, you know, becoming a bit of a science fiction author in some ways. I think of a futurist as a kind of like a reverse historian or as a bit

of a science fiction author for business. And that's what we do. It's not necessarily about predicting the future, per se, but it is helping our clients prepare for the future. So imagining different alternative future scenarios, which is what, you know, science fiction author does, this is what a futurist does. But I've enjoyed the idea of science fiction and storytelling as a genre from being, you know, a young kid who loved adventure and the adventure genre and science fiction genre. I always found that fascinating. And I enjoy it to this day where I get to tell stories and bedtime stories, reading Swedish books to my son here in Australia. But I guess, you know, from a professional perspective, being a futurist, you often get invited to speak at conferences to, you know, help decode future signal and translate those signals into something tangible that people can understand today. So I think, being a futurist sort of came first and all of a sudden the conference invites from Rio de Janeiro, or Shanghai, or Stockholm, or Helsinki, and New York kind of followed. Yeah. So, yeah, it's been a bit of a journey. 15 years I've had my business now and we've had the fortune of also pivoting into the virtual and digital world with a little pandemic breakout that you all know about.

Sam Hughes 4:48
Yes. And you've managed to make business sounds super cool. And I really appreciate that. I mean, being a futurist is already a cool title to begin with. And then the fact that you're basically predicting possible timelines for the future, for people to react to – that is pretty cool.

Anders Sörman-Nilsson 5:04
Yeah. Well, I would say, rather than predicting, I think it is the preparation area that we sort of attempt to excel. And I say it's not about predicting one future, but rather, you know, being prepared both for dystopias and utopias – and everything in between. I think that's when clients really are able to kind of stress-test their future strategies and make sure that they're prepared for the worst of times, but they can definitely hope for the best of times as well.

Sam Hughes 5:33
Yeah, bringing in that sci-fi edge of the multiverse and alternate timelines.

Anders Sörman-Nilsson 5:38
Exactly.

Sam Hughes 5:40
So with regards to the future of our cities, the World Health Organization says a healthy city is one that continually creates and improves physical and social spaces. So what are some of the challenges that might stop a city from being able to do this?

Anders Sörman-Nilsson 5:53
I think one of the primary ones at the moment is that people are a little bit fearful of public spaces. We've all become used to the idea of socially distancing. You know, mass transportation seems like a potential vector of a virus, and spaces that used to be beautiful spaces of community and collaboration – be they office places, or a plaza in an old European city – are places that people have tended to to avoid recently. So that's certainly one of the challenges just the psychological fear that people have been having. And I think there's a there's a huge role for cities and organizations to play here and actually rebuilding trust, rebuilding safety, rebuilding the story about the importance of places and cultural placemaking. And that work is really an innovation destination that we need to get back to. So I think they are some of the challenges. And of course, once people's confidence in returning to work physically, from this remote work experiment we've all been participating in – once we go back there, the challenge is going to be how do you make that journey seamless, contactless, frictionless, so that we can really re-engineer a flow to the ideas, and the cross-pollination of ideas that we as humans have the potential to kind of unleash. Because I do believe that beyond the pandemic, that this might be the early dawn of a second renaissance of the flourishing of human creativity, driven by technology and connectivity. And it is the early dawn, but I think the challenge will be to create flows driven by a technology of people getting back to work. Yes, work will look different, but ensuring that talent can participate, collaborate, innovate, will be one of the keys to cities in the future.

Sam Hughes 8:07
Yeah, definitely. And it's interesting that you mentioned about the renaissance, because so many solutions have been created quickly in response to this situation – whether it be creatively or socially.

It's also interesting that you mentioned the fear of people wanting to go back into those public spaces, because now we do have that aversion to it. How long do you think I mean – just purely ballpark – how long do you think it will take us to get back to the point where people are happy to go on public transport and go back to public spaces?

Anders Sörman-Nilsson 8:38
We've been working with Facebook last couple of years, particularly focusing on how they go to market with automotive companies. In 2019, when we started engaging with with Facebook, automotive sales and in certain sectors was sort of on the decline. But now, people are going back and want to buy cars. In fact, here in Australia, the September quarter was the best quarter for secondhand car sales in Australia, in an entire generation. So car sales are going through the roof because people want that private space. Now, this might create huge problems in the near future when everybody does return to work, and everyone wants to travel in their little cocoons, right? So there's going to have to be, you know, the, I guess the the emergence of the Smart City is going to have to respond to that. So I think they'll suddenly be a bit of a time lag until we start really trusting public transport. I think we'll sooner, in some ways, start trusting our buildings where we go to work to know that our organization is looking after us in terms of biometrically letting us into the building or solving for not just the last mile of getting to the office, but also the vertical navigation of buildings as well. So I think those things are key. And particularly, there's a lot of responsibility on organizations that we work for, to ensure that the last mile, which they can control is one, or the last vertical, 200 meters, or 250 meters, is one that is absolutely safe, and is a great brand and seamless experience for their staff. In terms of timelines, which I know you want to get back to, Sam, I reckon it's probably at least another year, I would imagine. I think the year 2021 is a year of rebuilding trust. It's trust in institutions, it's trust in the vaccines, it's trust in our organizations to safely bring us back, it's trust in the redesign of the office of the future. And it's bringing our, you know, more of an expectation of that integration of home life, the hybrid office, back into the workplace, and that the workplace is a place for collaboration and innovation. And that redesign will take at least a year. I think it will take a year before we have the true confidence to truly go back to work and feel safe during the whole journey.

Sam Hughes 11:18
Interesting. And it'll be kind of fascinating to see, because, like you say, it's going be a year before we build that trust again, but it's going be so much more beyond that, where the world is just a different place now. And it's going to be really fascinating to see what what we do with that.

Anders Sörman-Nilsson 11:37
I think the onus of proof is for anybody that's saying "we're just going to go back to the way that the office looked like in 2019" – the onus of proof really are on those people who are being nostalgic to prove that that is the workplace of the future, because we've gone through a massive transformation. I think any organization that says, 'hey, you have to be at work from, you know, nine in the morning till seven in the evening', or the cultural nuances where this organization, if you're seem to be burning the midnight oil, at work till 10pm or 11pm, you're the one that's in for a promotion – I think that era is gone. The office will look very, very different when we redesign it for the future.

Sam Hughes 12:32
Yeah, definitely. Now, speaking of the future, by 2045 the world's urban population is set to increase to 6 billion people. So how can emerging technology help us meet that future demand?

Anders Sörman-Nilsson 12:43
So there's been an interesting kind of trend in certain countries, during the pandemic, which has been that there's always almost been a de-urbanization in certain areas. I think this is a normal pandemic response. But cities are these vibrant, organic organisms. They are talent clusters, and certainly, they will be on the rise once again. I think technologies have a tendency to actually facilitate more humane experiences, they can reduce human error, which oftentimes have inhumane consequences, we just see that with autonomous vehicles, which in according to the World Economic Forum will save 1 million human lives over the next decade, as we reduce human error. People texting, for example, using technology badly on their way to work, or through drink driving, for example; technologies, like even the rise of Uber or collaborative consumption of transport – have led to way lower drink driving charges in places like California. And so there are new types of transport and suddenly smart transport integrations that are possible to enable more people to live in dense urban environments. And it's also been shown that dense urban environments are more sustainable and more energy

efficient, are actually better for the planet than lots of people living out in regional areas. So I'm quite hopeful that smart cities connected cities of the future will enable us to lead more meaningful and more humane lives. I think one of the challenges will be – is it just one central business district per city? I would say that the future is probably more polycentric. An example of this would be here in Sydney, where the former Lord Mayor was proposing the idea of a three polycentric city where everyone should have a central business district within 30 minutes of where they live. So rather than just having one central business district near Sydney Harbour Bridge, there should be three. And there are other cities around the world such as Chicago, which are trying to have the same kind of polycentric setup in their city. So I think that the nature of cities, and the centrality within cities is going to change to also enable more hyper-local communities. As cities expand, some people think of them as a little bit dehumanized whereas us humans like to belong, hyper-locally.

Sam Hughes 15:22
Yeah. And as you say, there's that impression where, urban living in the cities, is like, "Oh, no, that's bad for the environment and bad for the world", and it's all the "big businesses taking over cities and making everything a bigger city" – but it's not necessarily the case. And you touched on it already, in terms of how the technology improvements can make actually more humane touches on living. Is there any more ways that connectivity can make our cities more humane places to live?

Anders Sörman-Nilsson 15:50
Well, I think, you know, we've all become accustomed to using apps like Waze over the last 10 years. So predicting, and hacking traffic, I think was one of the original sort of value propositions of the app Waze – you see what the fastest route to work or to family dinner would be. Now what always fascinated me was that was, you know, one way dialogue, so certainly as an individual, you were able to hack and find smarter routes to essentially escape the menace of traffic. And I remember that doing a presentation in Bogotá in Colombia. Spending some time there with a friend of mine, who's an architect, then for him as he built his business, he said, Waze had absolutely revolutionized how many sales meetings he could go to every every day. He was using the smart technology and bypassing and hacking traffic, so is able to have more meaningful human conversation by removing the menial of sitting in traffic. But at the same time, it's still a one-way conversation. I think the fascinating thing is when the city's lights and the traffic lights start responding to people using these smart technologies – and are actually set based upon what's happening in real time, based on those traffic flows, and the contributions from our mobile devices and sensors as we move around the city. It's even been shown with old architecture, in older cities, that they can reduce traffic by 5% if their traffic lights were intelligent. So even in you know, old historic places around the world, or even in developing countries, we can see some of these gains when we retrofit smart technology as well. I think, us humans, when we see that technologies can actually work for us. Another example would be smart parking meters. In some cities around the world, it's been estimated up to 30% of traffic is made up of people looking for parking spots.

Anders Sörman-Nilsson 18:00
So if you know, if you're able to pre-book a spot. We've all had the experience of seeing the little green light in buildings, for example – if you can have a similar sort of heat map experience when you're thinking about where to park – and it's been pre planned – again, this can reduce traffic in cities. It's about introducing the human touch through the digital interface. It's about making journeys, frictionless. And again, if this is enabling more meaningful human meetings and removing the menial and the mundane from our cognitive tasks, we can actually spend more time hanging out together collaborating, innovating, which is of course, what happens when we're in the state of flow.

Anders Sörman-Nilsson 18:46
I mean, an example of this and how powerful predictive maintenance and predictive customer experiences can be is an example from the world of transport or from electronic vehicles. Now, many of us get really, really nervous when our iPhone batteries or our Samsung batteries start running low, right?

Sam Hughes 19:12
Yeah, the fear creeps in.

Anders Sörman-Nilsson 19:13

The fear creeps in when it goes down to yellow, we start looking for a USB charger or a wireless charger. So one of the biggest challenges around the world towards EV adoption has been our sense of range anxiety. In other words, where's the next supercharger station? Now you can just imagine what your sense of range anxiety might be two hurricane seasons ago in Florida. If you're fleeing with your family and your newly bought Tesla, and you're fleeing down the highway and a hurricane is chasing you and your family and your most beloved belongings and your photo albums down the highway – and your Tesla battery starts running low. You're probably getting some pretty angry glances from the passenger seat that you were an early adopter of new technologies. Until you then get a message from Elon Musk across the dashboard saying: "Fret not, human, we've just safely and remotely upgraded your battery so that you can safely get out of harm's way". True story. So your relationship with that previously cold piece of technology has now just become humanized or anthropomorphized. And it's also changing our relationship with the brands that we engage with and choose to trust. It's gone from a one-way monologue where brands used to tell us what they stood for to, through social media dialogue, a two way conversation – to now trialogue between the brand, the consumer, or the user, and the object. And that's predictive maintenance. It is someone actually able to send a firmware upgrade via the cloud to upgrade the piece of technology that you're engaging with. And I think that's the power of our cities, when they're able to respond in real-time to events, and provide through human-centric design, very humane experiences that are benevolent for us.

Sam Hughes 21:09
Well, it makes sense because as soon as you take away that cold wall of one-way information, then of course, you're going to feel more attached. And it humanizes the technology, like you say, when it's feeding back to you, and you have this feedback loop.

Anders Sörman-Nilsson 21:21
Yeah, exactly. Another example of this, and apologies for anyone listening at the moment if you have loved ones affected by these, or associated events – I do apologize for raising it here – and I also think it's a really heartening example of how the future of technology might actually reduce human error, even sometimes when it's deliberate, from very inhuman consequences. So maybe luckily for humanity, and maybe very foolishly, given his intent, the Berlin Christmas market attacker of 2016; he chose to hijack a smart vehicle, which was designed by Volvo. And with his foot on the accelerator, it was in fact the truck that managed to shut down the terrorist in the Berlin Christmas market attack. And unlike the Nice attack a few months earlier, when the when the attacker had hijacked a 'dumb truck', an old Reno, and had driven for 1.6 kilometers, whereas the Berlin Christmas market attacker was only able to drive for 70 meters before the truck shut him down because of the advanced braking system, the sensors, and the IoT enablement. That's saving human lives and preventing the inhumane consequences from, let's call it human error.

Sam Hughes 22:48
Yeah, it's going to be interesting how we can prevent so much more incidents like that in the future as well – thanks to technology.

Anders Sörman-Nilsson 22:55
Yeah, I think technology is becoming sensorially aware, and even artificial intelligence is becoming more empathetic and emotional, intelligent in some way, shape, or form. And I think even the idea of journeying around our lives in a way that's enabled by say, biometrics, contactless etc – is again a very human-centric design that's actually empathetic and bares us humans in mind. Oftentimes there's this idea that digital is somehow digitally dehumanized. But I would argue that when smart designers get together to design physical spaces or a talent or customer journey, in a seamless fashion – they can be very, very empathetic and human centric.

Sam Hughes 23:43
Now, you mentioned before about how you prepare for the future – you don't predict the future – you prepare for the future. Now, what should we be doing to prepare our offices, apartments, and public spaces for the future?

Anders Sörman-Nilsson 23:56
I think there are several things. One is, as we talked about, rebuilding trust in infrastructure, rebuilding trust in surfaces, rebuilding trust in human engagement. I think the first thing is to realize that while digital has been great for information, the analog physical world is great for transformation. And

culture gets shaped in physical places. When we get together, there's a reason why world leaders have traditionally met in physical places. It's the reason why Peace Accords are related to a place – whether it be Camp David or otherwise. There's a reason why we've gotten together as human beings to share stories over the campfire. That sense of placemaking is not going away. I think people are craving getting back into physical places and hanging out together. We have to redesign our offices and the journey to them in a way that's frictionless, that's seamless, that's contactless. I think those things are very, very important. But then once you get into the office, you have to recognize that individual work has become something that has been normalized that you do at home. I've been interviewing some of the leaders we engage with, and asked them, "how are you as a leader this year?". They said "we've all become more productive during lockdown, but I'm not sure that I've evolved as a leader". So doing solitary work, doing deep work, during reflective work – writing more emails, contributing to Slack threads – this is something we've all been able to do. Maybe I'm a bit of a humanist and a traditionalist in this sense, but I still believe that innovation still happens in a collaborative environment. And so you'll see workplaces transform in the way that they're laid out. You'll see them using outdoor spaces more meaningfully, partly as a safety measure. Also, you will see people going out and using the green spaces inside of their buildings or their plazas or the roofs of their buildings much more so. But you'll also see places being designed and redesigned to symbolize that, 'hey, the fact that you are here, and you've made the journey to the headquarters, or to one of the polycentric center centers of the organization is meaningful, and we want you to have a meaningful encounter with your co-workers'. So let's set up the space so it's not about you being an individual, and just doing deep work by yourself in your cubicle, but rather redesigning space for spontaneous interaction, or for collaborating around the water cooler – to redesigning space, so that they can be, socially distanced and we can use those communal spaces, those social spaces to realize that we as humans are social beings. That's what people miss the most now is that sense of collaboration and the social meaning of encounters with co-workers in their office spaces. Work, and going to a physical place that was work; that used to be compulsory. Beyond the pandemic, it will be optional. Once you opt-in to go to a physical space, you really want it to not be for mundane or menial or repetitive work – you want to have transformational experiences. And that's where the analog world still excels.

Sam Hughes 27:44
Yeah, because you'll want it to be more worthwhile if you're putting that time and effort into actually going there, now, won't you? You want it to be more meaningful engagements and meaningful interactions. And actually being able to collaborate with people in person, which will be a novelty at that point.

Anders Sörman-Nilsson 27:56
Yeah, yeah. And I mean, we just see this with digital engagement, right. Like the early days during lock downs, where technology was our only lifeline. People were signing up for webinars and live streams left, right, and center. After six or nine months, that wasn't as much fun. Podcasts, of course, are still amazing, right? Because we get to reflect and dig deeper, and they're a little bit more asynchronous in some ways. But I sense that there is, you know, this pent up demand for people to get into placemaking again. To re-explore how much fun it is to go to a strategy retreat, or go back to a redesigned headquarter, and to re-explore a great conference. These are things people find meaning in.

Sam Hughes 28:48
Yeah, 100%. And like you say, in the beginning, it was kind of fun and a novelty that you're on these Zoom calls, and you're like, "Oh, yeah, we're all part of this conference still" – but after a while, it loses any sort of feeling that you would get from those events. So people are probably really excited to get back to being in person in conferences. And part of that whole experience was not just the talks and conferences, it was also the socializing and networking – the coffee and the drinks and the lunch. You know, what every time that you could actually speak to the people that are just there. That was kind of some of the highlights for these things. So I think you lose that when you have these Zoom calls, because you just sit there listening to a talk, you might even do something else while you're listening. And it's not the same at all.

Sam Hughes 29:32
Now, in our last episode, we heard about the City of Helsinki's new smart city district Kalasatama. It has everything from robots that deliver meals to residents homes, as well as self driving buses. But

some cities have very old neighborhoods that can't be rebuilt from scratch. Do you think that all cities have the potential to be smart, even given this case?

Anders Sörman-Nilsson 29:53
I definitely think that there's a space for upgrading and retrofitting smarts onto previously dumb or unintelligent infrastructure. Just on a super hyper localized level, I've tried to recreate parts of my Swedish heritage here in Sydney. My wife and myself, we have a little, we call it a Swedish Sommarstuga – a summer house. It's a little cottage, a place called Mackerel beach. It's a really basic little cabin – we harvest the rainwater. Now, the water tank, and the fact that I harvest rainwater, makes me a little bit nervous. And the infrastructure there was, in some ways pretty dumb – not smart at all. But you know, since since we decided that this was something that we wanted as an intergenerational place that we could call home and escape to when needed – and get off the grid in some ways – I've also made sure that I've installed an IoT enabled tank water gauge. I can see exactly how much tank water is left. All of this is also then made easier by the fact that I also have a Netatmo weather station set up that forecasts how much rain we're going to get – that knows how much rain we captured overnight. And of course, all of that is then integrated with other smart tools to make that place more energy efficient, such as the air conditioning and the ducted heating we've installed – which I can remotely manage for energy usage. This is an old building that we've retrofitted some smarts to. I think there's opportunities, whether it's on the hyperlocal individual household level, or even for older cities, there's opportunities to upgrade and retrofit smarts onto buildings, onto streets – enabling smarter traffic flows, having intelligent parking meters, etc. These are all things that are possible. It's not necessarily about having a Greenfield city, like, there are cities popping up in the Middle East at the moment, for example, that are going to be entirely car-less and just managed by drones. This can also happen in cities that have a bit of history to them. And I think that sort of interplay between the analog and the digital worlds is one that always fascinates me. Another example again – I'm using another Sydney-based example here – but it's the fact that we've all been getting used to the collaborative consumption of transport over the last 15 years. Whether it's Zipcar or GoGet, or car sharing fleets, that sort of consumer behavior shift away from ownership to access of getting from A to B – when you integrate that with the consumer behavior shift towards Uber-style transport, we also see new types of integrations in public and private partnerships – solving for last mile problems, even when there is old infrastructure. So some of the roads are very windy here in Sydney, a little bit like a Swiss Alpine Road. Some forms of mass transport just don't work; where they terminate up in a place called Mona Vale on the Northern Beaches of Sydney – where the good roads stop – have been complemented to solve for last mile problems where people then order something known as a Kia ride via an app – and it's a bus, usually, for 8 to 16 people, depending on the size of the bus, they oftentimes use like a Mercedes Sprinter or a Kia. You order that on your app five minutes before you arrived at the final Terminus, and you get dropped off at your house; solving for the last mile problem. And it's become a really good way of integrating these consumer behavior shifts and also made transport super effective so that people are opting out of cars, and instead opting for public transport. They will hopefully rebuild the trust in public transport, as they can see that they can get back into these more sort of minibus-centric styles of transport – and still get into this city safely as well.

Sam Hughes 34:29
Yeah. And I can't help but think of science fiction again, when you're thinking of both retrofitting old cities with smart technology, but also the cities arising in the Middle East that you mentioned that are fully car-less and being controlled by drones; is that what the future of carbon-neutral city could look like? How can digitalization help with that?

Anders Sörman-Nilsson 34:49
Yeah, I think there's so many so many possibilities when it comes to retrofitting buildings. Whether it's recognizing our getting very used to seamless contactless deliveries, rather than going to shops, for example – that's already become a reality. You know, we're seeing robot delivery in places around the world including in Mexico, there's a company they're called Ruppy, solving for last mile e-commerce deliveries and they're doing so through robot delivery. And of course, we're increasingly going to have drones landing on high-rise buildings that will be retrofitted with balconies – and landing pads enabling drone delivery. So I think those things are already here. Science-fiction is, in many ways, fast becoming 'science-fact'. And I think there are fascinating ways of designing more sustainable cities. Sustainable cities were also the means of production, and even growing food in vertical farming situations – on rooftops – will become the norm. We're already seeing that with Plenty Farms – Plenty

as a brand are spawned out of Stanford University – where those vertical farms are now existing, hyper-localized in cities – using 1% of the amount of water that a broadacre horizontal farm would. They're using seeds that are developed for flavor and nutrients, not for lasting long distances. The average meal in America, the food miles on that meal would average 15,000 miles. This is pretty humongous, in terms of hyper localizing production and our access to agriculture and where we grow food. If you add on top of that lab-grown meats and all sorts of access to protein, you're seeing the sustainability stories that are being told by by cities. Another example of this is how technology is actually decoupling us from environmental and resource constraints. So, if we think of the humble example of the iPhone; we're starting to do more with less. Now, if we think about the iPhone, back in the 1990s, if you wanted to buy all the physical products and the services they would provide to you – that are now all contained within the iPhone – you'd have to buy 13 or 14 different physical products that will all be using up a certain amount of environmental resources. So that could be a video camera, it could be a VCR, it could be a Sony Walkman, it could be a fax machine, it could be the camera, etc. Now all of those are contained within the iPhone. And a lot of the components in the iPhone are in fact, recycled by Liam or Daisy, the recycling robot. And all of a sudden, Apple has become one of the biggest gold miners in the world, because they're recycling so much gold that are within iPhones. When they do have to source, you know, additional materials they, they do so from salmon-friendly gold mines in Alaska, for example. Tesla and other organizations are making sure that they source conflict-free minerals that go into their batteries. Again, technology and the entire supply chain can enable us to make smarter, more sustainable choices. And I think when both talent and citizens align with large organizations – and the buyers of these resources – you have a strong argument there for designing sustainable cities of the future.

Sam Hughes 39:01
I want to circle back to something you mentioned earlier, actually. We were talking before about how people are getting used to working from home and return to the office is going to be very, very different. Now, after months of working from home, people are used to having greater freedom and flexibility, as you said. Few of us want to actually return to fulltime office work, and some of us would prefer a mixture of office days and home office days. With this change in mind, could you elaborate more on what our offices could look like in the future?

Anders Sörman-Nilsson 39:29
I think first of all, we need to realize that the whole idea of five days of work is a very old, archaic notion. So rather than five days on and two days off, it might be more like a two-three-two. Two days in the office, three days at home, two days for rejuvenating – but also realizing that creative and collaborative and innovation processes don't just stop on a Friday evening during after work drinks. It's something that happens when we're asleep. Some of the best innovations, and some of the most creative pursuits can happen in the bathroom or on the bus, or in the bar, or even in the bedroom of a pillow talk, for example. Work is something that is going to be, you know, 24-7 and 365 in many ways. I also think that workplaces will have to start mimicking some of the spaces where we feel psychologically safe. I think people have gotten used to being invited into each other's kitchens, into each other's bedrooms, garages, their sort of makeshift offices. We've met our co-workers kids, their sick grandmother, their pet parrot, in a way we never would have. And of course, being European, one of the sensors of really feeling welcome is when you've been welcomed into someone's home. We've had that experience digitally. And I think we're going to expect that in the way that our workplaces are designed in a way that recognizes that "OK, you're no longer at home in a place where hopefully you feel safe, where you've learned to be productive" – so the social spaces and the collaboration spaces will be redesigned more like a living room that – and there'll be different types of spaces, custom tailored for certain cognitive tasks. I think that's an important aspect to what the workplace of the future will look and feel like. I think collaborative and co-working spaces were getting closer to that sense of the future of work. But again, I think that the focus will be on on the social and the shared spaces – and how we design those for cognitive output, and how we essentially design them to get the most out of the the cognitive diversity. As we design the cognitively diverse portfolio, we can really try and tap into the best of both human and artificial intelligence as people come back to work – hopefully augmented by smarter technologies and better office design.

Sam Hughes 42:22
Yeah, for sure. Now, you mentioned IoT before. So what exactly is IoT? And how can that artificial intelligence play a part in the future workplace?

Anders Sörman-Nilsson 42:33
I think the way to think of the Internet of Things is to think about anything in your home or in your office that essentially has an 'on' and 'off' button – all of a sudden, being connected to the internet. So this could be anything from the lights in your buildings – not just like the 80s movies when you clapped – but through voice command and through voice recognition or biometrics, could be turned on and off. Now another way to think about this is just like many cars these days are perfectly set to whether it's you or your partner or your kids sitting in the driver's seat, for example, and they adjust and personalize the experience for you. So every part of our built environment will also be able to memorize your personalized settings. When I sit down in front of my computer, for example – given my hue and very Swedish, Scandinavian traditional look of many centuries ago – the sheen on my face, etc, will you know will have certain lighting on it that might not suit my wife who is you know of Maltese, Egyptian, and Scottish heritage. She'll need a different hue when she's having a Zoom consult, using the same technologies. So I think anything in the home, anything in the office that has an on and off switch will be connected. Anything that could be connected will be eventually connected. I think that makes for much greater energy usage. It makes for hyper-personalized experiences. It makes for experiences that we can remotely control, like I mentioned in the example with our little summer house cabin. And I think that's, again, allowing for smarter energy usage, for more humane experiences. In some ways the digital world is the most humane, hyper-personalized experience that we can possibly have. Certainly one that's a lot more intelligent than the old analog world that we used to participate in.

Sam Hughes 44:46
Yeah, definitely – and in the future workplace specifically then. From home, yes, you have all these adaptations that a lot of us are probably quite used to knowing about now – like the lighting and voice activated devices throughout the home – and the future workplace, how do you think it's going to affect that side of things?

Anders Sörman-Nilsson 45:02
Well, I would imagine that if we go to work, you know, say it's three days a week or two days a week instead. Just like, some people have the experience in a prestige car of having those settings and the ergonomics responding to your weight – be that winter weight or summer weight – and the lumbar support supporting you just like you need to after you've gone to the gym a little bit too much and you've got a sore back. So I would expect the same sort of experience in the workplace of tomorrow. Because if you're doing shift work and there's new agile work teams coming together doing scrums in this collaborative environment that's increasingly agile – so I would expect the built environment to respond to the individuals who are in it to know people's preferences for, whether it's mood lighting, or whether it's the incessant battles of how cold or warm the air conditioning should be, the types of music that might be most conducive to innovation, or the types of meeting that's happening – that all of those things actually respond to the movement and the flow of people and the type of cognitive tasks they're doing. Of course, all these things can be changed and be taught over time with machine learning etc. But, expectations in one area such as automotive transport certainly will translate into these spaces that we also inhabit for work.

Sam Hughes 46:35
Yeah. And following on from that, how do you think companies can leverage technology to prepare for a safe return to the post-pandemic office?

Anders Sörman-Nilsson 46:44
The realization that the most 'human touch' – people have always said in retail and office environments that, 'we go and work for this organization, or we engage with this brand, because they just have that human touch' – you know, the human touch has been something that has just been a carrier of the virus. Our hands or our sneezing has been a vector for the virus, right? There's a lot of hesitation there. But to take the concept of the human touch – empathy and humanity, human centricity – the most human touch in the future will be the digital contactless seamless touch. And so that sense of seamlessness, of removing friction from the workplace of designing out hurdles, and having to touch surfaces, even if they're anti-microbial. That sense of engaging almost like you were in a scene from the Minority Report, to get back to the idea of science fiction storytelling – those types of experiences will feel extremely human centric, protecting. And while of course, being privacy compliant, walking into the workplace of the future, where you're feeling like your employer has really designed things to make sure that your safety and security is borne in mind – everything from

knowing that the air conditioning has the latest filters, for example, in an era where people are getting back into the nature more, you know, their expectations on the quality of you know, of the air inside of buildings is going to go up. So using technologies to ensure that we're in these environments that mimic nature – for all of us who have become biophiliacs, environmentalists – even if we're in a built environment – it's going to be incredibly important to recreate trust with humans as we go back to work.

Sam Hughes 48:55
Yeah, I think it's safe to say that we're all very much looking forward to seeing what this workplace of the future will become.

Anders Sörman-Nilsson 49:02
I certainly think that we've all been part of this temporary work-from-home experiment that we've had to adjust to on the fly. I think now is the time for some deep work. When we're thinking about really redesigning deliberately and meaningfully the workplace of the future, where humans can focus less on the mundane and the menial, and instead tap into more of the meaningful and humane encounters that will really drive collaboration, innovation, and hopefully the flourishing of human creativity. Just like previous pandemics have led to social mobility and huge innovations – whether it was the Spanish flu unleashing the participation of women in the workforce or universal suffrage, the voting rights of women – we've also seen how the black plague decimated places like Florence, but also lay the ground for social mobility where workers started becoming artisans, and artisans became merchants, merchants became noble men and women as places were decimated. It led to more value on the human and the cost of labor went up. There were investments and recognition that certain skills were now in demand. And there were also investments in new labor-saving technologies as a result. All of this reveling in the flourishing of human thought and creativity, artworks, and thought, and literature that we experience and value centuries later on – I do think that we're at the early dawn of that age now.

Sam Hughes 50:53
I agree. And I hope we're both correct in thinking this way about the future and how humanity and creativity is going to flourish. Now, I have to say, it's been an absolute pleasure having you on the show today. And thank you so much for joining me.

Sam Hughes 51:07
Pleasure to join you and look forward to seeing you in the future again.

Sam Hughes 51:11
Likewise.

Sam Hughes 51:14
Our relationship with the digital world is changing. Connectivity can help us rebuild trust in our physical world with touchless journeys and predictive environments that respond to our every need. On top of improving our safety, it can also improve things like creativity, collaboration, and connection. As more people gain the freedom to choose where they work, the office will become a human-centric hub for collaboration and innovation. Employers that use smart spaces to nurture meaningful experiences will most likely boost productivity. By improving our physical environment, connectivity can give people more of what they need to thrive, ultimately helping us build healthier, smarter, and more sustainable cities.

Sam Hughes 52:00
Hey everyone – this is Sam. Thanks for listening to this episode. It was the last part in a three part series about connectivity and urban living. We've explored how urban design and connectivity can improve inclusivity, health and well-being, and learnt what's next for the future city. I hope you've enjoyed listening. Stay tuned for the next monthly released episode from The Flow of Urban Life. And subscribe, wherever you listen to your podcasts.