Reimagining Work, Education & Healthcare

[00:00:12]
BRADLEY HOWARD (BH): Hello, everyone. I'm Bradley Howard and welcome back to a new episode of Tech Reimagined. We're now in Season Two, and we're focusing on the big questions around technology and the industries that are impacting our lives. I'm excited today to sit down with Dave Kotlin, the former chief envisioning officer of Microsoft.
Hello, Dave, and welcome to our podcast. Can you introduce yourself?

[00:00:32]
DAVE COPLIN (DC): Yeah, you bet, Bradley. Thanks for having me. So my name's Dave and I have a comedy job title. So Chief Envisioning Officer. Let me explain that just for one second. I've spent my entire career in the technology industry and the number one thing that bugged me the most was the fact that when you're in the tech industry all you want to talk about this technology, and I guess that's kind of obvious, but that's not what anybody else wants to hear.

They don't want to hear about the technology. They want to hear about what the technology enables them to do. And so I spent a lot of time at Microsoft and a few other places and I just thought, well, look, I'm going to create a position that's entirely focused on what technology enables us to achieve as humans. And I felt it deserved a pompous job title, hence I became the Chief Envisioning Officer.

[00:01:14]
BH: Well, that's absolutely fantastic. So let's dive right in. So how do you think that technology is going to continue to impact the way that we live our lives and go to work?

[00:01:24]
DC: I think we are in such a beautiful moment with technology for the most horrible of reasons, really. The last 15 months have forced us to completely rethink our relationship with technology and actually to carry us further forward than we would ever have gone in the past. And so actually, as a result, I think we've got a really bright future ahead in our relationship with technology. Technology, remember, is something that's not meant to replace us, but it's meant to augment us. It's meant to extend our capabilities, allow us to achieve more than we could do on our own as mere humans. And I think that's where we're at now, where the dawn of that sort of capability, that possibility. So I'm actually really excited about where we might go from here.

[00:02:05]
BH: And what do you think are going to be the next big breakthroughs in technology to help augment our lives?

[00:02:11]
DC: It's funny Bradley, I get asked that a lot. And it's you know, sometimes it's nice to be able to give, like a technology that's at the bottom of all of this. And, you know, there probably is. And I'm going to say artificial intelligence. And I guess that's what everybody says. But the thing about artificial intelligence is it allows us to automate some of the things that we couldn't automate before and it's going to be cognitive things. So some of the grind that we have in our lives, and it might be doing basic emails, it might be doing the - just the sort of blocking and tackling of our not just our working lives, but our everyday lives. A.I. is going to make that possible. Now, of course, A.I. is supported by another sort of range of technologies. The fact that we have, you know, these

amazing tiny glowing rectangles that we carry around with us, these smartphones, and that they are, you know, connected with high speed, for the most part, broadband.

They're all part of it, too. But for me, it's this capability that technology is going to allow for us to make a decision, to free us up, to give us more time to do things that are going to have greater impact on our lives. The challenge, though, is as great as the technology is, we're the buggers that use it. And so it's going to be down to us. It's going to be down to us to make sure that we use it in the right way to get the right kind of results. And that's what I think is going to be the really most interesting part of the next decade and beyond is how human behaviour adapts to embrace that opportunity.

[00:03:30]
BH: Playing devil's advocate to that, though, is that every time new technology comes out, we're told that's going to save some time. And now we find ourselves updating the firmware on our light bulbs or any other IOT devices around the house. You know, on my laptop, I have to update all the different applications and so forth that are supposed to save me time, but constantly require updating all the time. So how do you think that's going to work? Do you think we're going to get to a point where technology really is going to save us time?

[00:03:59]
DC: Well, yes, but we're never going to get to a point where, you know, we sit on our fat backside and do nothing because the technology has got it all covered. Let me give me a couple of different examples. First of all, you've got to think of it in the round. So if you think about our grandparents, roughly speaking, probably wouldn't have had a washing machine and, you know, it probably would have been my grandmother, to be honest, would have spent the bulk of her days beating up clothes in a tub, and then maybe if she was lucky, she might have a twin tub or mangle to spin it out, you know, days of effort to do the laundry.

Now we're in a world where even I, you know, playing to gender stereotypes, even I can operate a washing machine. I can bung stuff in and wash it, and I can go and do something else while my clothes are being washed. What you realise about productivity and technology is it's about what you choose to do with the time that's saved that becomes important. So, you know, we talked about AI a minute ago and we talked about how AI can free you up, can do the things that you don't need to do. But if you choose to take the time that saved and then go and, you know, use that to do another bunch of emails that could be automated, then then you're never going to get anywhere. So that's part of the challenge is what we choose to do.

Second is seeing in the round. So, yes, the fact that I'm no longer sitting there thumping washing means that I can get on and I can install apps and update the firmware on my light bulbs and we'll be in this sort of continual cycle, the bit that I think is key for us as humans and whether it's humans in the world of work or more broadly in the way that we live our lives, is, it's back to that choice. Technology affords us to make a choice that delivers more impact to our lives, better outcomes. But we have to exert that choice as human beings. I think that's the piece that we're going to struggle with. It's the bit that actually do I want to spend my weekend updating the firmware on my light bulbs? Do I want to be doing that? Is it the right thing for me to do?

And that's the sort of thing that we've got to work towards as individuals, as organisations, and then work with the tech companies too, and our relationship with them evolves as well. I mean, I don't know, Bradley, about you, but I remember the day when we used to get a new service pack from, you know, any of the big technology providers could be Microsoft or Apple or, you know, a patch for Android on your phone. In the old days, we would get that from the manufacturer and we

would test it. You know, we wouldn't roll out, we would test it, you know, and we invent work about work. Now, I would argue maybe we needed to in those days, but time moves on. You know, we don't really care. We just know that we're better off having a patched light bulb than an unpatched light bulb. So we just have to do it. So, you know, long winded answer, but basically, I think you have to look at it in the round. We're now able to do so much more than we could do with our lives than, you know, 10, 20, 30, 50, 100 years ago. That's thanks to technology. But going forward, as always, it will be what we choose to do with the time that's saved that becomes most important.

[00:06:49]
BH: So we've naturally gone towards professional work. If we take a step back and look at how technology is going to impact our lives, how do you think technology is going to impact the role of education, for example?

[00:07:00]
DC: Well, I hope it completely transforms it. If I'm really honest, Bradley, and this has been one of my chief frustrations, not just throughout the pandemic, but before that. So, you know, I'm in this fortunate situation where I spend my days thinking about the future of work and, you know, what is technology going to be when it grows up? But, by night, you know, I'm just like everybody else. I'm a parent. I'm a regular dad, and the bit was frustrating me and has frustrated me for years is if I look at the world of work that I think is going to exist, that my son is going to inherit and our kids, the next generation, are going to inherit. Then you look at the skills that they're being provided with in their education and there's no connection. There is a complete mismatch.

If you think about how the majority of people live their lives today with technology enabled by technology, we're not teaching our kids any of those skills. The pandemic brought that into a really acute relief when, you know, we haven't got enough laptops. So we don't know how to do remote lessons or we can't do this. We should have been there years ago in the UK. This is going to be a rant now, sorry, Bradley, but you did ask. Prior to the pandemic, 95% of schools in the UK actively banned devices in lessons, 95%, right? Now, go to anybody in any world of work, right. In any scope of work and say, "right, see your smartphone, you're not allowed to use that at work, I'm going to take that off – that laptop, no, you can't have that." We'd tell you to sod off, we'd say "I can't do my job without this." So what we were doing pre-pandemic is we were choosing to not equip our kids with the skills that they will need to be successful regardless of what they choose to do in their lives.

The pandemic has given us the opportunity to reset that. So what we need to do, if you think about the way technology used to present itself in education, typically primary and secondary, was technology was the thing that you only did when you were in the ICT suite or when the laptop trolley came around. And in reality, technology is the thing you do all the time. You know, if I'm learning about history, why shouldn't I be doing that with technology? Look, please don't misunderstand me. This isn't all about we're never going to write with a pen and it's always going to be screens. It's going to be technology supports everything we do in how we live, work and play. We do it as adults. I would defy any adult to tell me that technology isn't providing that role for them for the most part. So this is our opportunity to teach kids to build those skills, to build that relationship with technology that is resilient, is positive, is constructive, creative in their lives. That's what education must do with technology in order to help set our kids up for success in their world of work.

[00:09:40]

BH: Yeah, my wife works in a secondary school and we have this conversation all the time. Her answer to that is that the teachers themselves aren't really set up for the technology, and they're not as literate as someone like myself who works in a technology company.

[00:09:59]
DC: It's worse than that, Bradley, and I completely empathise with the teachers and, my God, you know, I am just so amazed at the teachers and how they responded to the pandemic. But, you know, because typically these are people who have not spent a lot of time - some do, but a lot for the most part - but we're able to respond and react in the way they did so quickly. What an amazing response. So we have to help them and we have to help them transition the opportunity for learning the purpose of education. And it's funny, you know, my son's a teenager and now he's doing his GCSEs and it's become really obvious to me this whole teaching to the test is what's going on is, you know, he's being taught how to get the most marks in an exam.

He's not being taught to have a curiosity for the subject that you know, or to explore his creative side with that topic. And I get that, right. And that's part of the world that we're in. But that has to change. The other part of the equation, Bradley, that we got to pick up is the people that we always leave behind, and it's the parents, and I see them all the time. And it's funny because I do a lot of this stuff working with corporates about, you know, helping them embrace the opportunity of technology. And then over time, I've developed a very similar thing, but for parents and teachers and kids, it's kind of like a kid's show.

But it's specifically designed because if you're a parent, and you're not like you and I in the tech industry, all you really read about technology is the damage and the harm and the risk it presents to our children. So we know that the World Health Organisation has a gaming disorder. You know, gaming is so bad for you that the World Health Organisation has designated that we should have a disorder for it, you know, rubbish. And we're worried about social media and rightfully so. There are concerns that we would have about that. Then we remember wistfully our childhood where we didn't have the Internet or video games and we would be on the rec kicking a football about, and why can't you just do that like I did? All of those things are perfectly valid. But what you have to understand is, I don't care what our children choose to do with our lives, what career, what vocation. I guarantee you, there will not be a single job or vocation that will not be made better with an individual who's got a great relationship, a constructive relationship with technology. Our opportunity in education is to build that. We have to give the parents confidence.

So when we start doing remote schooling and it's chaotic and they're like, well, why do we need to use computers? And surely it's just for the pandemic. We've got to spend some time on them and say, "No, actually, it's not just for the pandemic. That's just the beginning, because actually the better we do now with technology, with our kids, the better that they're going to do in their lives. Regardless of the career they choose. It's going to give them better health outcomes. It's going to give them better life outcomes, better employment outcomes." All of these things become possible if we simply take the time to help them build a really healthy, positive relationship with technology whilst there at school.

[00:12:44]
BH: So if you became minister for education tomorrow, what would you change, first of all?

[00:12:51]
DC: So number one, I would eradicate digital poverty, and what I mean by digital poverty is the people who, through no choice of their own, do not have access to connectivity, to devices, to skills, to, you know, people around them who can help them get that set up. We have to fix that. If

we don't, we are in real danger of creating a really divided society, even more divided than we are today, where the kids who have access to a laptop and broadband are going to be the kids that succeed and the kids that don't have access to a laptop and broadband are going to be the kids that are going to really struggle to find their place in the world. We cannot allow that to happen.

So as minister, my first job would be to eradicate digital poverty. The second thing that I'd then go on to do is to make sure that we place technology at the foundation of education. It's not replacing any part of education, but it is something that supports how we learn as individuals. And again, let me be really clear. This isn't about getting rid of handwriting and pens and papers and human skills and all that sort of stuff. It's simply to say we're going to be using these devices every day of our lives for good reason. We need to start that when we start young. And then the third and final thing I do, and this is going to be the trickiest thing of all, is we've got to pivot how we think about education. I have a definition of education, which is how we prepare individuals to be successful in their future lives. That's what education is here to do.

Yes, knowledge is a part of that, but so are skills. So are things like the human side of things, relationships, that's all part of what we have to do in education. And when you think of education in those terms, you realise that, you know, it's about wisdom, not knowledge. So I'm going to cast a sort of a sweeping assumption Bradley, but I would imagine when you and I went to school, knowledge was a scarce resource. It was something that you could only access if you were in a specific location, a library, a college or a school. We're now in a world where actually the information is not a scarce resource, it's a commodity. Everybody who has access to the Internet has access to every single fact, every opinion, every bit of knowledge our society has amassed over the last 70,000 years, we all have access to that digital poverty notwithstanding.

So in a world where we have access to all the facts, what we don't have access to is the wisdom. So the example I use with the audiences is like, "who can tell me the date of the Battle of Hastings?" And so everybody can tell me, "well, it was 1066". And I'm like, "yeah, but what was specific date?" "Well, I don't know." "All right. I'll give you 20 quid if you can tell me the specific date of the Battle of Hastings", what you think the response to that is, Bradley, when I ask people that?

[00:15:32]
BH: Well, straight on to Google.

[00:15:34]
DC: Exactly. So why should it be any different for our kids? Why are we slapping our kids around the head, because they can't remember the fact that it was, whatever, the 14th of October, 1066 or whatever, when in reality all they're going to do in their adult life is they're going to say, "Do you know what, I don't know miss, but give me a minute and I'll tell you the answer." Now, what we need to equip them with is skills like critical thinking, such that when they see something, they're going to say, well do I trust that? Is that the right answer? Or do I need to check that somewhere else? Those are the skills.

So this third and final part of what I would do if I was the Minister for Education would be to help make that pivot where we're more interested in wisdom and the skills like creativity and collaboration and empathy than we are on whether I can remember the bloody first 15 elements of the periodic table or the events leading up to the Battle of Hastings, because these things are all things that I would easily look up. So that's my sort of three part plan for, you know, come the revolution, my friend, when we take over the Department of Education.

[00:16:30]
BH: Well, it sounds very sensible. You've reminded me of - we once did an event at Endava, and we invited the futurist Richard Wilson to come along and he described, and I'm paraphrasing, 'we've come from a species able to recall wisdom, to be able to search for it'.

[00:16:45]
DC: But I mean, just to be a nerd about that, the nitpick I'd make about that is wisdom is hard to find, even on the Internet. Wisdom is hard to find. You've got to infer wisdom from knowledge. And so, you know, I think it's really important, and again, this is why I think technology in education is important, I can watch a YouTube video about how to do something, but it's only when I've done it for myself for the first time or I've talked to somebody else who've done it, do I start to actually acquire the wisdom that makes it possible to do it well.

It's that difference that I think becomes really, really crucial. And that's what we've got to you know, this is how we live our lives today as adults, right? So if we want our kids to be able to do that better than we can, we've got to help them with that. It's all supported by some really fundamental sort of human attributes that we all need to share. It's things like, you know, resilience, the lovely stat I was reading the other day that basically says I think it's 80% of the jobs – oh sorry, two stats. The first was from the World Economic Forum that basically said if you're in education today, 65% of the jobs that will be in the market by the time you're in the world of work don't currently exist. Right. So how do you educate people for something you don't know that exists?

So then all the parents go, well, yeah, how do you solve that problem? And then there's the other brilliant start, which says 80% of today's workforce will still be in work 10 years from now in 2030. So we've got to change as well. We're going to have to acquire new skills. So these concepts of lifelong learning, growth, mindset, resilience, these are the crucial things. It's going to be more important for my son to be able to deal with changes in careers and changes in tools and changes in sort of lifestyle and life conditions, than it is for him to remember the Battle of Hastings or to get an A in physics. His ability to change and adapt will be far more important to him, to the success of his life in terms of happiness and wealth and all those kind of outcomes – and health, I meant sorry. So these are the things that we've got to get into.

[00:18:43]
BH: Well, you're clearly very passionate about the education system. So let's move on to health care, because that has clearly been heavily affected by the pandemic. Do you think that health care is truly ready now for real digital transformation?

[00:18:56]
DC: Oh, I'm going to give you a great consultant's answer. Well, yes, but also no. What is great about the world that we live in today is that we have access to lots and lots of data and devices. So the fact that many of us carry a device like this that's starting to amass, you know, a data set of our sort of personal health metrics, I think is hugely important and will enable us to do great things.

But unfortunately, with great power comes great responsibility, and that's the dilemma we find ourselves in today, because in order to get the benefit from the devices and the technology, I'd quite like all that data. Thanks very much. And we've yet to reach a position as a society where we're comfortable with that. And it's going to be really important to us. You know, again, coming back to technologies like artificial intelligence, the larger the size of the data set, the more accurate, the more beneficial the algorithm becomes. So if you look at what happens today in

most health trials in the pandemic, it probably would be slightly different to this. But, you know, certainly most health trials we're dealing with, you know, a data set of maybe a thousand, a few hundred individuals. What if I could have a dataset of every person in the United Kingdom? I could have 60 million samples in my data set. The efficiency of the algorithm will fundamentally change as a result of that. But we've got to reach a point where we can find a mechanism where we are able to trust that that data is going to be used well and is not going to be used against us.

That's difficult because, again, it's part of this societal dialog that we have to have about, you know, is the price worth it? And I think increasingly and again, this is where things like Facebook and Cambridge Analytica haven't helped us. You know, I'm pretty confident that if we had access to all the data, we could take huge strides to curing things like cancer, you know, dementia, those sorts of things. But we can't do it without the data. So at what point do we as current citizens of the world, what right do we have to prevent future citizens of the world from being able to solve these diseases? The philosophical dilemma, I mean, it's you know, there's no easy answer to this, but this is the challenge that we face in health care.

[00:21:13]
BH: Yeah. During the pandemic, I've had to do a couple of video consultations with doctors and one of them who's much younger than the other, Shaddad, asked me. He just spotted that I had a Garmin on and said, "Have you noticed any trend with your heart rate, your resting heart rate"? So I went onto the screen and I said, "Yeah, it's been increasing about 10 beats a minute for the last couple of days." He said, "Right, I think I know why it is". But it's really interesting that he was asking that.

[00:21:42]
DC: Look, I think this is the beginning of something amazing, and again, notwithstanding the issues around privacy, there's a number of really fantastic healthcare apps around the world. I mean, Babylon is the one in the U.K. that I'm familiar with and the journey that they're on. But the ability for me to, you know, provide consent to, you know, put the exhaust of my health data into my Babylon repository that can then be used by the health care professionals. You know, this is difficult, right, because health care is so important to us right now as a society, and I don't want to denigrate that at all. But if you look at the role of a great GP, it really is to look for patterns. And that's actually something that algorithms are really good at, actually.

In fact, they're often better than humans at doing that. And that's not to say that GPs aren't valued or, you know, the algorithm is going to take over from GPs. But again, back to that point of freeing the GPs up to be able to do things that require a more nuanced human approach. So if you look at health care apps like Babylon and others, you know, that do those first layers of screening and triage, I think we'll grow increasingly comfortable with those. We'll have to you know, it'll be interesting to see after the pandemic, you know, I don't ever want to go to a GP surgery again if I can avoid it. You know, even after the pandemic.

You know? 'I know I'm feeling a bit poorly. Why don't I go and sit with all of the other poorly people until-' you know, it's madness and the technology means that we don't have to do that anymore. So I would love to think that we've got this opportunity now where, you know, citizens, consumers, in whatever sort of world you want to start thinking about it, we're a bit more open to this stuff now because we've had to do it for the last 15 months and we shouldn't throw that away lightly at the end of this. If there is an end to all of this and start to look at the opportunity, how could we do this to make it better? What could we do to make this work better? The other thing that we're seeing in health care, of course, is, you know, the concept of decentralized hospitals as well. I don't need to

have everything in the same place. I don't even need to have the you know, let's pick on the radiologists, you know, in the same room as the machines anymore.

You know, all of these things start to become possible and really, really fascinating. So I just, I hope we can get to a point where we can work with the issues around privacy. I think it's about education and good legislation. If I'm really honest and I think, you know, in the technology industry, we have a duty of care to help educate people so that they can make informed choices rather than the last meme that they saw on Facebook. Not that I'm judging. You know we've got to do that, we owe it to ourselves to do that.

[00:24:16]
BH: Yeah. She reminds me of a project that we did for a large Telco. It was a mobile app, and what would happen was end customers would phone up the Help Desk and say, "I've got a problem with my phone", and the Help Desk would look through its user base and say, "Well, the first thing to do, please, can you reboot the phone and then call us back," so people would call back. What the mobile app could tell was whether the phone had been rebooted or not. There was a very significant number of people who said yes, even though the operator could see that the person had not received their phone. I'm just thinking in future health care, would you call the doctor and the doctor would say, well, "Mr. Howard, we asked you to lose a couple of pounds. We noticed from your Strava updates you haven't."

[00:25:06]
DC: Yeah, and this is the whole number of it. If we were High-Performance athletes and I think you'll be quick to judge that I'm not, we would be doing everything we can to give as much insight and information to our coaches and the training staff to help us perform at the peak of our performance. Why is it then when I go to the doctor and the doctor says, "So how much do you drink Dave?" and I'm like, "Yeah, well, about 14 units, yeah 14 units, definitely 14," you know, why am I not actually like, you know, "it's a bit more like 40 or 20" or whatever it might be. So - but that's the nub ofm because we're a bit worried about what happens if the doctor knows that I might drink more than I do or smoke more than I do or eat more than I do or not exercise enough. What does that mean? Who tells my health insurance? You know what if the government checks - and is the nub of the privacy issue we've got to figure out because for me, the size of the prize on the table is too great for us not to solve that problem. That's the bit that I don't think enough people understand yet. That's what we've got to do to change that dynamic.

[00:26:07]
BH: Yeah, well, I really think we could carry on talking about this for a lot longer, but - so thank you very much for all the insights that you've given us in this episode. Thank you very much to all of our listeners and viewers for spending some time listening to Dave and I chat about the future of technology. Please tune in for next week's episode and we'll promise even more exciting conversations. Until then, thank you very much.