



# **Ben Wood**

Interviewed by

**Jane Bird**

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Via Zoom

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*Welcome to the Archives of Information Technology where we capture the past and inspire the future. It is Monday the 21<sup>st</sup> of March 2022, and we're talking on Zoom as has become customary during the Coronavirus pandemic. I'm Jane Bird and I have reported on technology and the IT and telecoms industry for newspapers such as the Sunday Times and Financial Times since the early 1980s.*

*Our contributor today is Ben Wood, Chief Analyst and Chief Marketing Officer at CCS Insight, a consultancy providing market information, analysis, and intelligence services focused on connected technology. Ben is also founder of the Mobile Phone Museum, which has hundreds of handsets ranging from the earliest devices of the 1985s to collector gems such as the Huawei KFC phone emblazoned in red and engraved with an image of Colonel Sanders. Although currently virtual, the aim is for the museum to have a physical pop-up exhibition by 2025, in time for the 40-year anniversary of the first mobile phone call made in the UK.*

*Ben, welcome, I'm very much looking forward to hearing more about your life so far, experiences in the mobile phone industry and insights into the future of connected technology.*

[00:01:22]

Thank you very much, Jane, it's great to be here.

[00:01:24]

*So, if we could start at the beginning, you were born in 1972, in Bath, I think.*

[00:01:33]

That's correct, yes.

[00:01:35]

*And did you have a happy childhood looking back on those years?*

[00:01:41]

I had a wonderful childhood, obviously, growing up in a-a town with tremendous architectural beauty, erm, probably not realising as a child how wonderful it was until I went away to university in Hull and realised that I lived in a spectacular city on even a global basis. Erm, and, er, life growing up was, er, village life for me, erm, I-I went to school in Bath but I lived out in a village, I had tremendous times, erm, out with friends, village life, er, and it was-it was a lot of fun.

[00:02:14]

*So, you-you grew up, it was a happy-it was a happy family, your parents were encouraging and, er, er, you felt nurtured and you were able to do things that you wanted to do at that time?*

[00:02:25]

Absolutely. I think you know; my success today has been built a lot on; you know the-the great start in life I had from my parents. I have a sister as well, erm, my erm, mother was a tremendous drive-in terms of academically helping me along because I didn't find that that easy. Erm, and my father is an incredibly talented, erm, individual, he can make anything out of er, wood. He can fix anything, er, but he was working for a large, er, large American company called Herman Miller who are renowned for their focus on design, er, and focusing on office furniture. But I grew up in a household surrounded by beautifully designed furniture from iconic designers, such as Charles Eames, er, which I think really did probably set me on a path to have a tremendous appreciation for the challenges it takes to make any product.

[00:03:19]

*So, was your-were you- weren't really quite into technology I suppose at that stage, it was still [cough] early days for mobile phones.*

[00:03:28]

Absolutely, I mean tech-technology was around, you know we had a BBC computer, which of course has gone on to be, you know one of those really iconic devices, so, I was aware of technology. I was interested in technology but I certainly wasn't a trajectory at that point, where I thought I'd end up working in you know, a technology, erm, industry. Er, I spent a lot of time outdoors, er, you know, helping in

the garden, er, chopping up wood, all those sorts of things. The village pub was the centre of the social scene, er, but no, technology at that stage, wasn't the biggest thing in my life. Erm, I guess, you know, my exposure was more on that kind of office furniture and design and being very practical around the house, u-undertaking all sorts of projects, erm, with my father in particular.

[00:04:04]

*And what-what about at school, were you happy at school?*

[00:04:08]

School was okay, I won't say it was the happiest time of my life, erm, I was kind of not particular... I-I felt I was bright, but I never did well academically, I think I just couldn't, didn't get focused enough and I wasn't a sportsman. And, er, of course, you know, being good at sport also, erm, gives you a good opportunity to move forward. Er, so, school was not, you know, the best, but I had some, you know peaks, er, er, moments in there. Erm, obviously, I had some teachers who were incredibly supportive at school, and-and really could see that there was a lot of potential there, er, but, er, quite a few rep-school reports which were along the lines of the, you know, he could do better [laughs].

[00:04:39]

*Yeah, er, [coughs]that must have been frustrating for your parents because they were-they were paying, weren't they, it-it was-it was private sector?*

[00:04:47]

Yeah, oh, absolutely, and I think erm, you know, I think it is only thanks to them and their drive and my mother's patience that got me through my exams and got me on to university. And I think as I narrowed down the subjects that I was, erm, taking and therefore engaged in subjects which I had more of a personal interest in, things started to click. Er, and certainly, at university, that's when things turned around. And I didn't do brilliantly well in my A-Levels, a-a-and I remember arriving at university, and almost apologising to the admissions officer, er, to say, you know, I'm really sorry, these aren't the best grades. And, er, a-and she just said to me, "Don't worry about it", she goes, "If you work hard here and you do well here, those grades will be

forgotten.” And never a truer word said, and, er, I would, er, you know, pass that onto younger people today; you know, if you-if you keep focusing and you keep your head down, er, as long as there is continuous improvement, you-you’ll be remembered for the last great thing that you did.

[00:05:39]

*Yeah. So, erm, during that time you went to France, I think and worked for Texas Instruments, was that rather good?*

[00:05:48]

Yeah.

[00:05:49]

*Near Nice in the south of France?*

[00:05:51]

Oh, that-that probably was the trigger for the technology, er, part of my life, although even at that point, I-I didn’t realise that was the case. Erm, I was, er, doing a European Marketing and French Language degree, er, it was a sandwich course, which afforded me the opportunity to either go and study at another university, or I could find a foreign work placement. And, er, through, er, some-some family contacts, I was lucky enough to, er, have an opportunity to go and work at Texas Instruments, who, er, er, you know were riding high in the chipset market, er, still a key player now. Er, and I went down to work in the south of France, near Nice, erm, and just had the most wonderful time.

And it was the really early days of technology, you know, having a great big laptop that you could, you know, cart around, er, was-was-was a real privilege for people. I had a desktop computer, I had an email address, which, I know sounds just ridiculous now, but that was quite exciting at the time. And there was instant messaging within the organisation, er, you know, you’re still talking about very, very basic communications, very email-centric, er, none of the richness of the internet that we see now today, erm, but it captured my imagination.

Erm, but funnily enough, while I was at Texas Instruments, Texas Instruments was a huge player in the mobile phone market at the time, but I had no real understanding of-of the mobile space, I was working in the marketing team and we were doing all sorts of internal events for distributors in particular. So, it was the whole gamut of Texas Instrument products. Er, but again, some wonderful people, some fantastic life lessons, er, from the people that I interacted with, erm, who were able to, erm, you know, teach me how to conduct myself in a business environment. Erm, how to, er, really, erm, you know, maximise, er, relationships, erm, build empathy with people. Er, and that was really truly inspirational.

[00:08:03]

*Can you think of, erm, er, one or two examples perhaps that highlighted that?*

[00:08:08]

Yeah, my boss, a guy called Jean Francois [s/l 00:08:10 Gracieux/Gracan] was the, er, I think European Head of Marketing. He was tremendously encouraging, and unbelievably, erm, generous in allowing me to, erm, er, er, kind of get involved in the business. So, I was given the responsibility, er, that a full-time employee would have at Texas Instruments, albeit as-a-at the time, as an intern, yeah, to the point where I think some eyebrows were raised about why this young lad was getting so much responsibility. So, that was fantastic, and then there was another gentleman, er, called William Tolson, who was a-an ex-pat, who had been living in France for years, and years, and years and he was tremendously encouraging, he understood some of the challenges of being a-a foreigner, er, working in another country and... Let's not forget as well, this was before the age of you know, mobile phones and you know, I would have to queue up once a week to make a phone call from a phone box for two minutes to my parents. I had a girlfriend, at a distance, who, you know, we would just exchange written letters [laughs]. It was-er, it was a world away from, er, you know, a young person going abroad now. My son has travelled all over the world and, you know, he's a WhatsApp message away whether he's, you know, in his-in his bedroom at home or he's on the other side of the world.

[00:09:12]

*Yes, I know, it's true, it's amazing. But, y-er-er, would-would you have described yourself—You weren't really a techy person though at that stage, were you?*

[00:09:19]

I wasn't. I was, erm, I had an aptitude for technology, I was always happy to hack about with computers, er, I didn't find it daunting at all, erm, but I-I guess maybe just my general kind of rounded upbringing, tinkering with things, fiddling with new products, I didn't find anything particularly overwhelming, and therefore, er, because it was an area that was exciting and of interest, i-i-it really meant that I could get the most out of it. And, er, it was almost embracing technology through osmosis, er, you know, I was working for a large American multinational, they were very much focused around using, erm, IT in their business. Er, that meant, you know, I-I-I was able to type, that was a huge advantage, I was, er, you know, creating presentations, erm, as I said communicating with, you know, email systems. I-i-it was just a wonderful immersion in what were some of the foundation steps as to where-where the world evolved.

[00:10:19]

*Yeah, so, then, you-you came back to the UK and you-you were looking for a job, I guess, and you wound up with, er, with Vodafone, er, the-the graduate recruitment scheme.*

[00:10:28]

Yeah, a super story there. So, I came back, you know, I'd had a good couple of years, like all students, you know the first year was a bit of fun, the second year I did a bit of work, third-year went out into the workplace, suddenly got my, er, the bit between my teeth and thought, this is what it's all about. And came back and worked really hard in the final year, erm, made some really great friends, so, as a group, there was a cohort of us who all wanted to be successful. Er, and then it came round to the point where everyone was talking about recruitment, and, er, yeah, I-I-I-I'd nurtured that kind of people skills, I went to the careers office, I knew the people there. Erm, they liked me, and I think they helped me, I think my application forms regularly got put on the top of the pile.

Erm, and er, I just... The criteria for applying for a job, and I'm almost a bit embarrassed to say it now, but it certainly worked out very well for me, was that I applied to any company where I recognised the name. Because I worked on the assumption that if it was a big company with a recognised brand, they would have a good graduate programme. So, I applied to Renault, British Steel, Proctor & Gamble, Unilever, a whole host of the obviously milk road companies. Erm, and I also applied to this funny little company called Vodafone, based in Newbury, er, who were doing these mobile phone things.

And er, er, after quite a-a-a, several rounds of graduate recruitment, I think it went from several hundred, down to 25, down to a final 6 or something, erm, I secured a role, er, and not just in Vodafone, but amazingly, in a part of the business, which was called VoData, erm, which was the Value Added Services Division of Vodafone. Which at the time, primarily focused on voicemail as a value-added service. But I joined them in 1994, in September, erm, as the GSM network was starting to gather momentum, and I was lucky enough to be in the team that then went on to launch text messaging, so, the short message service, SMS, and mobile data. And er, that has gone on to really be, you know unbelievably important, erm, technology, er, in-in-in-in-in-in humanity almost. Now, I know that sounds like a pretty ridiculous thing to say but imagine a world now without smartphones and instant connectivity to the internet, and WhatsApp and other things and all of those things were pioneered back in the 1990s at Vodafone.

[00:12:58]

*Yeah, absolutely. Well, you didn't stay at Vodafone awfully long though, did you? just a couple of years by the looks of it because then you joined Lucent.*

[00:13:07]

Yeah, the reason for that, I-I was, er, incredibly ambitious, I was really enjoying Vodafone but it became very clear to me early on in my career there, that I-there was a glass ceiling, I was never going to get, er, beyond. So, there was a very strong middle-management layer at Vodafone, which was extremely well-renumerated with share options and therefore, there was never going to be any opportunity to progress through the company, erm, easily, because no one was going to go anywhere. Erm,



so, I-I had, erm, obviously worked with Texas Instruments, a US multinational, so, I felt very comfortable with that international business. I knew if I wanted my career to progress, I needed to move, er, relatively quickly. So, after, I think it was more than, er, two and a half years, maybe, I moved on, got this great opportunity, er, with Lucent Technologies, who were coming into Europe to sell their network infrastructure technology, initially 2½ G, erm, GPRS technology, and then latterly, 3G.

And that was based down in Swindon but it also afforded me the opportunity to travel the world, erm, you know, crazy, crazy trips to Australia, Taiwan, the US, all across Europe, very, very exciting times in the development of mobile networks. And my job was to evangelise the technology, evangelise the experiences that would be delivered with richer data services. Erm, which was really, er, I-looking into a crystal ball of what would happen in the future. Erm, one particular example of that, er, we worked up a whole set of scenarios, how the world might look in the future. And we developed this concept, almost jokingly of this idea of what we called the pizza phone, that you would have a phone, and on the phone, there would be a menu and you'd be able to select, erm, you know, the pizza that you wanted and the different toppings that you wanted and then submit that to the pizza company and they would deliver the pizza to you.

Now again, any young person watching this video would be looking at me going, what on earth is this guy talking about. But honestly, that felt like science fiction at the time, we would go and present this concept to people and in-in some cases, they'd look at us like we were from another planet. Erm, a-a-absolutely remarkable, really amazing.

[00:15:27]

*This was still, erm, still in the late 1990s then?*

[00:15:29]

That's right, yeah, so, this was, er, yeah, late 1990s, so, dot-com bubble time as well, so, it was all very exciting and, erm, you know, it was at that point I started to get interested in some other things as well. I-I had the chance to work with an

unbelievably, er, bright, er, a guy from, erm, er, from-from the Bell Labs arm in the US, who had been developing, erm, some quite interesting, erm, text to speech technology, erm, WDS we called it, the Wireless Data Server. And, er, we were able to take emails and then make a call out to people and read their emails to them, which again, now, would just seem, you know, just such a rudimentary service, but this was just an astonishingly clever piece of technology. Er, the full force of the Bell Labs, erm, er, you know, kind of brains, er, had-had-had delivered this product, it was a super-exciting time.

[00:16:24]

*So, you-your, it's always been the technology that has been, er, one of your-your-your... It wasn't just that you wanted to make lots of money and see the world, you were very, you were very much into the technology as well.*

[00:16:39]

Erm, I think I-I was very fortunate to end up in a business where I was working with things that I really loved. I-I-I've been fortunate throughout my whole career that going to work has never been a chore. Erm, and, you know, for a lot of people, er, they work to live, and you know, I'd say I, you know, it's a cliché, but yeah, I live to work, I-I-I really love what I do. I'm very passionate about what I do and I-I genuinely feel so honoured to have been on this journey, erm, of this technology curve. Because, when I joined Vodafone, you know, who would have thought, erm, you know, erm, the mobile phone would become the, er, most prolific consumer electronics device on the planet. You know, it was... We had no vision that-that we would reach these dizzying heights and I kind of jumped into an industry at a time where it was exploding, and I've been on that trajectory ever since, erm, you know and-and it continues, you know, every day is different.

Erm, and-and, you know, er, let's say I'd gone and worked at British Steel, or at, er, you know Renault, or wherever else I'd applied, erm, you-you don't see major disruptions. You might live through one generation of technology, so, maybe in the car industry, you might go from, er, you know, fossil fuel engines through to electric during your lifetime, I'd be coming up to that now. Er, whereas in the mobile industry, erm, I've now lived through four generations of technology, I-I-I arrived,

erm, you know, when it was analogue, so, I wasn't there at the conception but I saw the birth of GSM, with 2G, I saw 3G arrive, 4G arrive, and more recently 5G. That's beyond the realms of most, er, the kind of levels of innovation most people would see in a career.

[00:18:07]

*Yeah, yeah, okay, so, n-n-n-never a dull moment. So, you then moved on, erm, to Mobile Streams, er, for a couple, er, not-not for a very long, but erm, what-what-what precipitated that move?*

[00:18:25]

Fascinating. So, erm, Mobile Streams was a start-up created by a gentleman called Simon Buckingham, er, he's, er, er, a relentless entrepreneur, and Simon and I had worked together at Vodafone and Simon had scaled up a business around mobile content. And the biggest that he have-had, was a company called... Well, he-he-he owned a number of web domains, Ringtones.com, and Picturemessaging.com were big ones.

Things weren't going too well at Lucent and it wasn't because I wasn't enjoying the role, I was just struggling to see how Lucent was going to break into the market. It just wasn't replicating the success that it had had in the US with CDMA technology. It was under sustained attack from, er, Chinese manufacturers Huawei, Ericsson and Nokia were dominant. And, er, actually, I went to the president, er, the European president of the company and sat down with him and I said, "I'm thinking of leaving because I'm not really sure how you're going to fix this business." And, er, he was very honest, he could see I was ambitious, he liked me, he wanted me to do well, and he said, "Ben, I can't put my hand on my heart and say we can fix this business." So, I said to him, "Well, that's very good because that's made my mind up, I'm going to take an enormous risk, and I'm going to go and work with a friend of mine, in a start-up, in a kind of hand-to-mouth basis, and create a business."

And so, again, another kind of throwback to history but the idea of spending you know, one or two pounds on buying a ringtone for your phone, er, crazy frog is the most iconic ringtone of all time, but obviously, Nokia had, er, some iconic tunes as

well. Erm, but, er, we had this asset ringtones.com, I felt that that was a really important asset for a business because it was the go-to destination to get content. And Simon and I, erm, built up that business, at the same time running a bit of an analysts business as well. So, we provide, a kind of advisory on what was going on in the market while trying to build up this content business.

Erm, and I won't say that it was easy, it was probably the toughest, I don't know, as-as you said, it was a relatively s-short time, the toughest few months of my-my whole career, erm, where I was working with someone who was just, you know, an absolute workaholic, er, and Simon wouldn't deny that. Erm, we didn't have a great-great grasp of how to professionally run a business, so, you know, we had all those sorts of challenges of making sure that we got enough money in through the door to pay all the bills at the end of the month. Erm, but slowly, but surely we built a really nice business, erm I had some equity in the business, and although we did reach a point where it couldn't go any further with me and Simon in the business, I walked away with, from that business, with some equity in the business and a business that continued to grow. And I-I do feel I made a major contribution to that growth and putting in some stable foundations and Simon would, er, provide testimony to that-to that extent as well.

Er, and then he subsequently floated it on AIM, er, so, it-it was lovely for me because I-I made a little bit of money out of that as well. Erm, I learned an awful lot about how to run a business, which stood me in good stead for the transition onto CCS Insight eventually. Er, but an opportunity came up at Gartner, er, and by that time, I had realised that I had, er, a good skill set when it came to distilling technology down into easy-to-understand sound bites and-and being able to assimilate a market and provide analysis on that market. So, the opportunity at Gartner was really a perfect fit for me. Er, and that was all around mobile phones and-and smartphones, and that that point, that had become a real area of interest for me. Erm, and I-and I went in there and-and it just opened my eyes to a-another whole opportunity, and, er, really progressed my career because I went on to have a-a-a-a very large global team spanning all the way from Australia to, erm, er, all-all the way down to, er, Dallas. Erm, and er, that meant it was almost a 24-hour operation, and I-I went on to be one of the youngest research vice presidents the company had ever had.

[00:22:24]

*Yes, um, but you were based in the UK when you did all that, were you, you didn't have to--?*

[00:22:25]

I was based in the UK for that but again, there was a lot of travel came with that-that role, as there had been with Lucent as well. Erm, but, er, yes, I was based in the UK.

[00:22:31]

*So, you were lucky that you were able to pursue all these, erm, goals without having to work abroad or perhaps you would have wanted to be placed abroad, or did you just feel that you did it anyway through the travel?*

[00:22:46]

There were a-a couple of opportunities. I mean, obviously, I had the year abroad when I was working with Texas Instruments, so, I'd had some limited, you know, experience working in a foreign country. Erm, there were a number of flirtations with either moving to the US, erm, you know, with Lucent, or erm, at some points with Gartner even, we looked at maybe as a family moving to Australia. Erm, the problem with that was when I actually looked at it and looked at it from a career perspective, Australia is a long way from anywhere. A lovely, lovely place to-to visit, I went there many times, erm, over the course of my career, erm, but erm, in the end, it just so happened that London was a great to be and it's a good time zone, er, you know, you can work with Asia in the morning and the US in the evening, er, and it just transpired. But it wasn't that we were averse to moving, it's just the right opportunity didn't come and, er, er, my career was doing very well based here in the UK.

[00:23:41]

*So, you spent five years at Gartner, I think, erm.*

[00:23:43]

That's right, yeah, absolutely.

[00:23:44]

*Yeah, and then, so, did you then set up... So, this was the CCS, which became CCS Insight. You-you had... Did I read that you had actually started up setting it up in 1993 or was that something?*

[00:24:00]

So, the founder of, er, CCS Insight, er, which is, er, the CCS stands for Collins Consulting Services, it was a guy called Sean Collins. And Sean had created this fantastic one-man-band consultancy business, erm, and he'd done that, he started it in 1993, and then when I, er, hooked up with him about 10 years after that, we had been talking for a while. And I had reached the end of the line at Gartner, I felt I'd gone as far as I could with that business and I had a choice. I was sitting at a crossroads, I can either go off and set up my own business, and I'd built pretty good brand equity, the Ben Wood brand had got out there, I'd developed a-a very good media profile as well. So, I did have the opportunity to do something on my own.

However, I was erm, a little nervous about whether I'd be able to ramp up the business on my own and be able to develop a business at the same time as starting it from scratch. So, I knew I was really good at the delivery, er, but my concern was that actually, all of the, erm, work that goes around building a business, you know, securing business, erm, getting through procurement processes and all of those sorts of things would slow me down. This coincided at the same time as Sean reaching a point with Collins Consulting Services, that, erm, there was an opportunity to expand that business, and he, er, had a-a-an investor in that business, a guy called, erm, Michael Walker, er, who is one of the other, erm co-owners of CCS Insight now. And he had said to Sean, "Let me help you build a business case, to expand this company." Erm, and it quickly became apparent that they needed to recruit someone and Sean's first top pick was to work with me, erm, and a-at that point, I was also looking to form my own business. So, I said, "Well, I'll come in, erm, you know, I'll take some equity as part of that, er, deal, and we will create a new business."

Erm, the name Collins Consulting Services didn't really ring, have a ring around it that we felt exuded the right kind of message that we wanted, but a lot of people had come to know, the entity as CCS by that point. So, we, er, worked hard, looked at a

few different options and came up with the name CCS Insight, er, and hence that's why that, er, started. So, it was me, Sean, and, er, Mick, the three of us who then, er, basically founded this second-generation of the CCS business, and, er, we haven't looked back since then. So, it's gone on to be now, a multimillion-pound, er, business with about 30 people in the team. We've got, er, offices in Kings Cross in London, er, we have a few people on the west coast of the US as well.

Er, and it's a tremendous success story, with, er, you know, a number of, er, customers, you know, every, every handset manufacturer with, er, you know, of a certain size, erm, in-in our stable of, er, er, customers, working with, er, network operators like Vodafone, Singtel, erm, Dodge Telecom, many others. Erm, and also, all of the kind of big web players, er, semi-conductor players, like Intel and-and, er, and, er, Qualcomm, you know, a tremendous stable of-of companies. Which is, you know, truly humbling as a-a small English, er, you know, business which has grown organically, er, we-we've funded all of our own growth without having to take any investment, erm, and we're extremely proud-proud of what we've achieved.

[00:27:17]

*And you've got, erm, a thing called the Predictions Event, which you said is quite popular, what's that?*

[00:27:26]

Absolutely. So, this has become a signature event for the company. So, er, shortly after I joined, I felt that it would be, erm, good to produce a, um, set of predictions every year in terms of how we thought, erm, technology was moving. And it started as a simple report but over time, it became a-a bigger franchise, and, er, er, we moved it from being a report to a-a-an event. And we hosted numerous events getting bigger and bigger every year. I hosted in London with really senior people from all over the world, you know, people like Cristia-er, Cristiano Amon, who is now the, er, erm, the CEO of Qualcomm, for example, was on stage, we had people from Amazon, erm, the-the CEO of BT; many, many people. And we put together, we-we-we kind of use our brains trust of-of-f analysts to put together really punchy predictions, erm, around 100 predictions every year, spanning an enormous range of technology areas. Er, and the predictions are designed to be, erm, thought-provoking and erm, opinionated, but

not deliberately controversial. Because there-there are either people who, I-I felt made-made predictions which were just a statement of the obvious, so, we try and avoid those.

And then there are people who make predictions which are deliberately contrary and controversial, which serve no purpose other than to really just get headlines. But we try and find a middle ground and we've had some tremendous success over the years with some of the, erm, predictions that, erm, we-we-we've made. Erm, some which have got us into trouble, erm, because found it just too difficult to believe they would even come true.

A very one memorable was that we predicted that Google would buy Motorola's handset business, er, and we had Motorola as a client at that time and when they saw this prediction, they rang up and went absolutely berserk and threatened to cancel their contract with us, er, only to find 18 months later that that particular prediction came true. Erm, another one was, erm, O2 and Three in the UK, where we had a prediction about, erm, those two companies coming together, erm, and-and we-we actually had Ronan Dunne, who was the CEO of O2, in the audience at that time. And we had-we had warned him this prediction was going to be there, we didn't want to ambush him. Er, but he, er, he kindly volunteered to comment on the prediction when it came up at the event and he memorably said that he had no worries about that and that he would sleep well at night. And lo and behold, erm, a hostile bid came from, erm, Three for O2, er, just, er, er, shortly afterwards. Er, and-and no one knew that was going to happen at that time.

A-a-and we've predicted various technology trends as well, so, it-it's-it's a great event, it's really good for our research team, it sets the agenda every year, and it's something I'm very proud to lead.

[00:30:21]

*I mean, you are really, m-making hostages to fortune, erm, [coughs] fortune, aren't you, predicting things, [coughs] a hundred things a year. I mean, there's no possibility that they're all going to come true.*



[00:30:31]

Absolutely not, and that's not the goal. We don't expect all 100 predictions to come true, but what we hope is that our customers and we know our customers, can use that set of predictions as a-a really fantastic kind of strategic bellwether in regards to where we think are, think things are going to-to go and-and we, er, each year publish a report, where we, er, er, publish, you know, 10 that we got right and 10 that we got wrong. Erm, so, we're not afraid to put our hands up when we get something wrong, I think it is one of the big shortcomings of the analyst world, that people tend to rewrite history and brush their mistakes under the carpet. At CCS Insight, that's not something we've ever done.

[00:31:03]

*No, fascinating. Um, okay, I mean, we will, let's talk-shall we talk now about the-the Mobile Phone Museum because that's obviously you're most recent venture. Erm, I guess the idea for it goes back to-for-for a while though, doesn't it? So, talk us through sort of, how it came about and how you've built it up since-since the beginning?*

[00:31:22]

Well, it's a wonderful story, and, er, I think if you remember at the beginning of the interview, I talked about growing up in a household where design was an important thing, erm, and appreciation of products was a-a-an important, product design was an important thing, and cast-casting all the way back to the mid-1990s, when I was working at Vodafone. And Vodafone was a very different beast back then, it was more of a kind of engineering-led company, we were just starting to figure out marketing. Um, Orange were coming into the marketplace with Hans Snook, who was very, very smart with his marketing. But, a-an-and Vodafone was making that transition, I was in the marketing team.

Then the building where we working, and there were about 50 different buildings Vodafone had around Newbury, each little building usually had a little lab, er, and, er, it was a-a throwback to the days of the engineers. And those labs were being knocked out more space for desks for sales and marketing probably. Er, and one day I was in the office, and I saw this lab being dismantled and people carrying large phones out of

the building to put into a skip. And, er, I-I-I was absolutely horrified by this, because it struck me that these were devices that were an important part of social history. I was seeing how quickly the mobile phone market was evolving. And, you know to go from a device in the 1980s that was the size of a car battery, erm, through to where we had got to at that point, where you had a very, you know, slick hand-held device, which you could take all over the world and make a phone call, was enormous.

So, I rushed out after these guys and said, “No, y-y-you can’t throw those away, I’ve got to look after them.” So, I-I popped in my car and took them home, and then-thence began my mobile phone collection. Erm, and then over the years, erm, I-I just collected phones, and whenever I saw anything of interest, erm, I picked it up. Er, a lot of people started to learn, and it’s funny, you know, anyone who collects anything, whether it’s, you know, fridge-fridge magnets, or, I don’t know, any-anything you can think of. Once you know someone who collects something, if you see one of those items, you say, well, I-I’ll give that to Ben and people have started saying, well, Ben collects phones, we-we-we’ll keep our phones for him.

Er, so, this went on for many, many years, er, I carried on collecting phones all the way through my career, er, and then in the, er, kind of around, I guess 2010 somewhere around that time, er, I’d started to, er, kind of lose track of what I had and people knew about this collection and they were always saying to me, “Oh, you know, how many phones have you got?” and I’d say, “Well, I-I don’t know, you know, a few hundred or whatever.” Er, and then there was a particular period where I’d moved house and had had to one van just for the phones, er, that’s how many I’d got by that stage.

And it really was a realisation that I needed to sort these phones out. So, I started pulling them all out, cataloguing them, putting them all into an Excel spreadsheet, and as I did that process, I’d lay out all of these phones on my workbench in my garage, er, by brand, and I’d put photographs of them on social media, er, through LinkedIn mainly. And, the outpouring of nostalgia was overwhelming, you know, there were plenty of people out there, like me, who had great fond memories of all these different devices. Erm, and as a result, that, erm, snowballed into more phones being donated but also, it got picked up by, erm, a guy at the FT, erm, who did a short video on it, it

got picked up by the BBC, erm, I was on the One Show with the phones for one of the, er, iPhone launches. Erm, I went on some funny programme called Collector Lot, er, which was a kind of mid-afternoon Channel 4 programme in between Stannah Stairlift adverts, I think. Erm, and that was kind of the start of it.

Er, but then, erm, things got a little bit more serious around kind of 2018, 2019 when I had an unexpected, erm, message on LinkedIn from a-a-a gentleman called Kamil Vasek, in er, in the Czech Republic, who, er, said to me, “Er, hi, er, I’m Kamil, erm, I think I’ve got nearly every HTC phone that has ever been made, erm, I’d like to send them to you because I think what you’re doing is really good.” And, er, and I have to be honest, to my great shame, I looked at this, er, Jane, and I thought, my word this seems too good to be true, and so, I better just figure out what this is all about. But it didn’t take long to find that Kamil was a well-known guy in the industry and it was a genuine and it was a genuine. He’d been the distributor for the, er, erm, HTC phones in central and eastern Europe and he’d built this amazing collection.

So, lo and behold, DHL delivered all of these phones, and I said to Kamil, next time you’re in town, erm, come and see me, I’d love to take you out for dinner. Er, anyway, he came over, erm, we sat down and had a coffee together, and he said, “Right, Ben, what are you going to do about this-this museum?” you know, “When are you opening it, what are we going to do?” and he’s a very, very successful entrepreneur, he-he-he’s been hugely, erm, successful with what he’s done. Has this incredible drive and, erm, he-he really put me on the spot, and said, “Well, what do you need, how can I help, I want to be an angel to-on this project?” and he said, “I’ll tell you what I’ll do, I will help you build, erm, the brand identity, and the website, erm, to create, er, this museum.” And this fell at around the time that the pandemic was starting to just take place as well.

So, we knew that the, er, traditional museum was kind of a broken, er, business model. Er, but because we were so into technology and because we wanted to have massive reach with this amazing collection that I’d created, erm, we felt that the best thing was to start with a virtual online museum, which people can find [mobilephonemuseum.com](http://mobilephonemuseum.com). Er, and at this point, I’d also joined forces with another mobile phone collector, er, a-a gentleman called Matt Chatterley who had been

working at Nokia in the early 1990s, when I was at Vodafone and we'd struck up a tremendous friendship and Matt had a superb collection of phones as well. So, we brought those two entities together and off we started and worked unbelievably hard, er, thanks to Kamil's help, we-we built the-the website, the brand identity, a huge database, we catalogued all the products, we started photographing them. And at this point, we also knew that we wanted the mobile phones to be used as a force for good.

And I also knew that I needed to create an entity that would ensure that the mobile phones were safeguarded because when people are entrusting their phones that they've saved for years to me, I didn't want a situation where they would be saying, well, hang on a minute, I'm giving these phones to Ben, which might have some value, what if he decides just to, you know, package them all up and sell them? You know, there's no comeback, so, I first of all thought about a trust, and I thought no, we could create a charity, which we did, er, and we-we used a-a-a... So, I had some tremendous and professional services help to do that, er, from-from a company in Reading, er, a lady called [s/l 00:38:30 Roo Woo], who has, er, has been absolutely brilliant in helping us on our charity journey.

And-and the pillars of the charity were one, to safeguard these historic iconic devices, but also, to pioneer an education arm, er, to take these phones into schools and virtually into, er, you know, y-young people's lives so they could learn about the amazing journey that the mobile phone had been on, and hopefully, inspire some of the designers and engineers of the future, erm, through that.

So, we-we set up the museum and then I needed to find some sponsorship and in my mind, the obvious partner for this, was Vodafone because that was the network where my career had started, erm, and also it was the network that had made the first mobile phone call, er, public mobile phone call on January the 1<sup>st</sup> 1985. Erm, and also, I saw an opportunity to secure a multiyear sponsorship agreement with them because in, 2025, it will be 40 years of mobile phones in the UK. Erm, so, that gives us a few years to build the collection, catalogue the collection, photograph the collection, build our assets, build the education arm, and then be in a position to have a really fantastic in-person showcase, erm, for the museum.

And that, er, that journey is going very well, we now have over 2,350 unique devices, erm, we think it is one of the most significant collections of, er, er, phones in the world. Er, there are some people who claim to have a lot more devices, we have over 5,000 in total, with duplicates, erm, but erm, that unique number is important. And since our official launch in, er, November 2020, we've added a further 350 unique devices through the generosity of the public, and through people within the industry, er, and-and some other sources. Er, we-we do buy some of the phones on E-Bay as well if there's particular rarities that become available.

[00:40:16]

*Yes, I mean, a-a-are there still some important ones missing that from-from the early years that you'd like to get your hands-hands on?*

[00:40:26]

There's always phones that we're looking for, and we have a most wanted, er, page, on the website. But remarkably, erm, many of those most wanted, so, I think out of the 15 or 16 most wanted devices, we've managed to get, I think about 7 or 8 of those already. Erm, but erm, the big, erm, push over the next few years, we have a very, very good representation of phones from Europe, we have a-quite a good collection from Japan, but I'd really like to fill out the North American market and many of the CDMA phones, we have a lot of analogue and GSM devices. Erm, and also, erm I think South Korea would be another, erm, very, very, er, fruitful avenue in terms of finding historic phones, tremendous innovation in the Japanese and South Korean markets in particular.

Erm, but erm, yeah, I think we're going to keep building, I-I have, er, we-we can't catalogue the phones fast enough, so, erm, we've been very lucky to now have secure storage, erm, for-for the devices, and, er, we have several hundred devices which haven't made it onto the museum yet but, we'll be there in the next few months.

[00:41:34]

*And then, in 2025, you plan to take them, er, from school to school with these pop-up events and so on, is that--?*

[00:41:45]

Er, no, I mean the schools' programme has started already, we've been piloting that, we've visited three schools, just as we're now coming out of the pandemic. In fact, the education team are out at a school today, erm, doing a two-and-a-half-hour workshop with the kids, erm, talking about fantastic phones and, the evolution of phones and what technology has been subsumed into the phone and other angles like sustainability, er, another part of the workshop we're doing. Erm, so, the phones are used regularly, er, out and get into people's hands.

The pop-up museum would be something like working with an established museum like the Science Museum, the Design Museum, the sort of place like the, you know, others like the Postal Museum perhaps; anywhere where there is a relevance to take the phones and put them into a museum setting in one of their, er, flexible, erm galleries. So, most museums have a rotating gallery where they'll have a-a showcase for maybe 12, 6 or 12 months, and that would work well for us because we don't want to have the overhead of having a permanently fixed, er, museum, er, we believe the virtual museum is a very forward-looking way to exhibit these products. Erm, we're developing more rich content to go with those, so, we, erm, you know, filmed some interviews, er, some of which will be published with the phones.

Erm, we, erm take very high-quality photography of the devices, in future, we may do, you know 360° pictures of the devices. And who knows, you know, maybe we'll be able to deliver a virtual museum through, erm, you know, virtual reality or-or the-metaverse is such a big buzzword these days. But you know, there is no reason why we wouldn't give people the ability to put on a head-headset and visit the museum. But we-we're targeting that 40<sup>th</sup> anniversary of mobile phones, to have a major event where people will be able to go and visit the collection and I'm-I'm super-proud of what we've achieved, you know, all-all done in people's own time. You know, my evenings and weekends and my other trustees of the charity, Matt is involved in that, my son is involved in that, er, Mick Walker, who I talked about earlier, who was at CCS, is involved in that. Er, and some other, erm, friends who have given up their time as well.

[00:43:57]

*So, stepping back [00:47:02] to to sort of look at the social aspects, of [coughs] the mobile phone sector, erm, and what you've-your work has, in that area. I mean, how would you say mobile phones changed society, er, you know, in the-in the decades that you worked in it?*

[00:44:09]

I-I think it's just been remarkable, you know, I look back at those early days at Vodafone where we were fiddling about with text messaging, where you'd-you have to push a button three times to get a letter on a screen and send messages to each other. And I'll be frank, you know, we didn't really know what we were doing and what a big impact that it would have and it would go on to be you know, billions of messages sent, you know, every day. Erm, and we'd get to a point where, you know, 1.5 billion mobile phones would get sold every year and that's about 42 phones every second: it-it's incredible.

Erm, and you know, phone-phones have provided education, er, they have provided the ability for people to create commerce, er, they are an invaluable part of everyday life, it's the computer in your pocket, erm, everything. Erm, you know, s-society is hugely dependent on them now, er, you know, e-e-even more so during the pandemic. You know, some of the things that we've seen in terms of using QR codes in a restaurant to, er get a virtual menu, for example, getting a text alert with a-a confirmation, er, pin code for your bank account, erm, being up to date with current affairs. The rise of citizen journalism where, er, the ubiquitous camera inside a mobile phone, er, which, you know, let's not forget was considered quite preposterous idea when it was introduced in Japan, erm, has gone on to record, really iconic events, erm, whether it was the, er, you know, the plane crashing into the Hudson River, which was all captured on mobile phone, er, photography, er, er, on cameras.

Er, I mean, er, er, er, a-a-a more interesting one is the impact on current affairs, er, the 7/7 bombings in, er, in the UK, er, a really tragic event, but interesting the roles mobiles phones played in that. It was the first time that we saw, erm, you know, live coverage of-of an incident as it was unfolding. There were people who took film and-and short videos and photographs on the tube trains that had been affected, erm,

as they left the trains and stumbled down the, er, tunnels to come out. Er, we'd never seen any kind of footage like that in our lives, erm, there is no, you know, BBC camera crew wouldn't have been allowed to arrive at one of those tube stations and run down into the tunnels and film what was happening. Erm, but there are so many other wonderful things as well. People are able to capture their lives, share wonderful moments, erm, it-it really has become an incredible tool in everyday life.

[00:46:39]

*I mean, of course, it is also giving children access to pornography, and erm, er, damaging, er, er, you know suicide messages on social media and so on. There are quite a lot of bad things as well, aren't there?*

[00:46:55]

Absolutely, and we're very conscious of that and I think that you know that's one of the interesting things when I go into schools and I talk to, erm, headteachers, they say, erm, you know, most of the time when they talk about mobile phones in schools, it's largely negative and I'm not going to, you know pretend that there aren't issues like access to pornography or, you know, phones used for bullying and all those sorts of things. Erm, but there's plenty of things that they can do as a force for good as well. Erm, and what the teachers love when we take the phones into the schools is the fact that it is a positive message, in so far as it's an amazing industry, er, much of which was pioneered and developed in the UK, erm, it is something that we can be very proud of.

It's a testament to the evolution of technology. Er, we've seen so many technologies subsumed into the mobile phone, er, of course, we've got challenges as we move into the future as well, around sustainability and telling that story in terms of how we need to think about these devices, albeit very important in our lives, we can't live without them, but we need to start thinking about new areas like how are they recycled, can we improve their longevity, can we, erm, make them more secure, erm, can we make them repairable? And-and, er, this is, er, part of the story that we're trying to tell as part of the mobile phone museum charity project.



[00:48:16]

*Yes. Erm, how do you, when you look into your crystal ball and think about, er, the mobile phones of the future and-and indeed the connected world of the future, how do you see things evolving in the next 10 years or so?*

[00:48:28]

That's a-a very tough question indeed and of course, it's always interesting to look into the crystal ball and wonder what's going to happen. Er, if we start with mobile phones, er, the topic that is closest to my heart, er, things have been rather dull since, erm Steve Jobs announced the iPhone in January 2007, erm, that moved towards a kind of rectangular Monoblock of all phones that start to look the same. And one of the things I'm very excited about, er, now, is that we may well-may well move from that sea of sameness, erm, to a little bit more design diversity, er, with the erm, arrival of flexible display technology, which is now allowing us to have foldable phones and phones with screens wrapped around them, and that is starting a whole new, er, chapter of innovation.

Erm, obviously, we have, erm, 5G now, er, which is available, er, and that is allowing, erm, even faster connectivity, lower latency connectivity, and I'm sure that that will spawn a whole new wide range of applications that we've, erm, not previously, erm, seen. Erm, if I knew what those were going to be, obviously, I would probably be off building them, erm, but what I can tell you is history has shown me, that every time we provide people more bandwidth, they fill that pipe up and it means we're going to get richer experiences and more exciting experiences.

Erm, I think that also, er, we start to see, er, mobile technology, erm, starting to play a more important role in healthcare and in the health and wellness of our daily lives. So, things like, you know, smartwatches, which now have a tremendous number of sensors in them, measuring heart rate, measuring your sleep, you know, in future, maybe they'll have, er, you know, blood sugar, which could be a revolutionary, er, step forward for diabetics. Er, temperature measurements is very, very important as well, and we know from, er, the pandemic how important, er, it was to-to be sure, you know, how well you were, and if technology can deliver that, it would be fantastic. Erm, so, it's almost limited by your imagination and the sheer, erm, volume of mobile

phones and the reach of connected technology has made the world smaller, and that is, you know, super-exciting and I think bodes well for even more innovation in the future.

[00:50:36]

*Mmm. So, what would be your advice to, erm, a young person today, who might be thinking, er, a-as you were, when you, er, you left the U-University of Lincoln, it was, it has become, hasn't it now?*

[00:50:46]

Yes, that's right.

[00:50:47]

*Erm, what shall I do, shall I go into mobile phones, wh-what would your thoughts be?*

[00:50:51]

Well, I think the first thing is, you know, find something that you're passionate about. I mean, I-I was lucky, I-I ended up working for a company where I was immediately interested in what they could offer and it launched me onto-into a fantastic career.

Erm, but for that young person, I would say, you know, follow your heart, erm, you-your-your ability to form relationships with people, er, in your working life is hugely important and that has never been more difficult particularly, during the pandemic, we've been working from home, it's been very difficult to onboard people but work hard on those relationships. Er, take the opportunities and really immerse yourself in the technology, if you are going into the technology space.

One of the things that I was very proud of as I went through my career was the fact that I was always happy to get my hands dirty with the technology, really live and breathe the technology. Er, you know I still provide analysis on the mobile phone market and that means that I probably have to change my phone every, you know, three, four, five weeks; that's an extremely difficult and challenging thing to do, swapping all your contacts over setting up all your apps and everything else. But it's the only r-r-real way you can be a-an expert.

Erm, the other advice, I would give is, erm, in my career, I've been fortunate to work with some really, really tremendous people and I've always worked hard to try and reflect on the meetings I've had with people who impress me. And try and nurture the best bits of what I've learned from them. So, erm, you know if they have characteristics, which I think, wow, that's really impressive, the way they behave, the way they present, the way they articulate their message, I would say I try to take that on board. And on the flip side, when I've seen things that I don't like, I've made a real conscious effort to make sure that I don't develop any of those behaviours as well. Erm, and I think that has been a tremendous life lesson, er, for me.

[00:52:44]

*And you really have to buy a new mobile phone every... Well, buy, er, er, acquire a new-a new mobile phone every five weeks or so?*

[00:52:48]

Well, I'm very, very fortunate in so far as my position in the industry and I, you know, I do a lot of work with the media, er, and I work with a lot of these companies, they-they very much value my opinion. So, erm, yeah, phones do, erm, arrive, and er, I get the chance to use a lot of the new devices, er, but you know, you could get the box and leave it on your desk and not do much with it, or you could unpack it, take your sim card out of your phone and make it your main phone and let-and then live and breathe it, and for me, that has been something that I've always done, a-a-and people are incredulous when I say I'm changing my phone every few weeks, er, but actually it's been, er, er, a really critical success factor for me.

[00:53:24]

*So, [coughs] I'll, er, be-I mean, you-you've said to some extent they've been rather all the same since 2007, erm, and it, perhaps they're going to be a bit more varied. So, has your, er, experience in the past few years, changing your phone every five weeks, given you the impression, y-yes, they're getting more and more the same?*

[00:53:46]

W-we've seen a lot of marginal gains, so, it-it's tiny incremental steps forward, i-it has slowed down though, but you know, there-there was that period in time when we

went through, and this goes back to the museum collection, er, this incredibly diverse range of different devices, you know twisting phones, flip phones, fixed phones, rotating phones, er, and we went through enormous kind of Cambrian explosion of er, of development of mobile phones, er, to where they then stabilised and then the quest was better, bigger screens, better cameras, faster charging, more applications. And we've been through that phase now, er, but as I said, I'm really excited now about some of the new form factors, erm, where we're, we're starting to see flexible displays used. And some of the peripheral devices that will work with your phone as well, whether it's smartwatches, smart glasses, smart headphones, and various other sensors that can be on your body. Erm, you know, even a smart ring on your finger, for example, which I've got. And all these different, erm, parts of the ecosystem of connected devices that are in people's lives, er, mean that, er, the technology is certainly not standing still.

[00:54:55]

*What does your smart ring do?*

[00:54:58]

Er, well this one, is a relatively basic one actually. This is, er, my credit card, so, when I go into a shop, I don't have to have a wallet or a phone or anything, I can just tap my finger on the payment terminal and, er, the payment is made. Er, there is another ring we've been trying called the Oura Ring, which is akin to some of the capabilities that, erm, I used in smartwatches. So, it has temperature sensors, an accelerometer, it measures your sleep; erm, that is quite an interesting, er, way in which technology has been miniaturised so, everyone is innovating all of the-all of the time to try and find, er, new ways to make technology more a-accessible and, er, and to make it easier for people to, er, use this technology and embrace it in their everyday lives.

[00:55:50]

*So, is there anything that you would do differently if you were to have your time again?*

[00:55:55]

Gosh, that's a tricky question. I mean, I have been so fortunate, I might have, erm, maybe left Gartner a year earlier, I think I'd kind of reached the end of the road there, but I think a lot of people in their careers say, sometimes they've stayed in one place too long. Erm, I'm really enjoying, erm, you know, building CCS Insight. Erm, it doesn't get any easier, erm, you know, er, as-as a company gets bigger, the challenges change. Er, in some respects, it was a lot easier when there was just, you know, three or four of us, erm, now, we're ten times that number, erm, it-it's more challenging. But, er, no, I think, erm, I think I've just been incredibly fortunate, very, very lucky and therefore, you know, I think you-I should be grateful for that. I-I can't say there's a lot of things that I would do differently.

[00:56:42]

*And do you think that the UK can continue to have a-a-a-a sort of leading position in this market because there is more and more competition from, er, from China, from-from Taiwan, from the US, from all over the world, isn't there? It's going to be pretty tough I think isn't it, for the UK?*

[00:57:01]

Well, our crown has slipped and, er, you know, there is no question that we haven't built those big entities as we've seen in the West Coast for example, with the Googles, and Facebooks, and others. Er, you know, we still have tremendous global, er, businesses, like Vodafone, er, like ARM, like BT, er, we still nurture young talent in those businesses. Erm, we've seen examples of, er, start-ups which have gone on to be acquired. Erm, but it-it is challenging for the UK and I-I don't deny that, er, but we are very, very fortunate that we have, erm, such a, erm, you know such a, erm, a unique position in the industry in terms of the history. We still continue to have a lot of companies that want to locate here. The UK market is still considered to be very much a leading-edge company, er, er, country, in terms of the deployment of new technologies, be it, you know, 5G or some other technologies that we've seen deployed here. Erm, so, a-a-and the time zone does play to the strengths as well, I mean, that has been so fundamental to the success of CCS Insight, er, in so far as we're able to cater to a global audience from the UK time zone.

[00:57:48]

*The-there has been, of course, the whole security side of things and, er, the reluctance to er, er, to give big 5G contracts to Chinese companies and so on, is one of the problems for the industry, isn't it?*

[00:58:07]

Erm, yeah, I mean, think this a-a-a global issue, you know, it's the geopolitics of technology, erm, there is a bit of a technological cold war between, er, you know, the US and China. Erm, and obviously, with Huawei in particular, on the infrastructure side of things, erm, there were decisions made that, erm, the government didn't feel comfortable having critical national infrastructure, erm, you know controlled by, er, a-a Chinese provider. Erm, but, you know, these things ebb and flow, er, there is still plenty of room for innovation. Er, and the Chinese are not going to give up, any time soon, you know, they continue to invest and develop and create intellectual property. So, that-that's not something that I'm-I'm hugely concerned about.

[00:58:58]

*No, [coughs] and I guess, it-it's many years now since people worried that mobile phones might give them brain cancer.*

[00:59:06]

Yeah, I mean, I-I-I-I don't think we can have any form of complacency when it comes to, you know the health impact of, erm, technology. You know, all the tests show that there aren't any issues, erm, I do often say to people, you know, someone like me, and many of my fellow kind of industry friends, have been there right from the beginning, so, unfortunately, we're the human guinea pigs for the technology. Er, and touch wood, er, you know, everything is okay, erm, but I think that's why there are so many stringent tests and procedures that are used and done when new technology is introduced to make sure that it is safe. Erm, and, er, so-so I think, er, you know, we've seen, er, more the rise of conspiracy theories which have been damaging, you know, it was tremendously disheartening during the pandemic when there was all this nonsense about 5G masts causing Covid and stuff like that, which was absolutely preposterous, erm, and, you know, caused really significant damage to some of the equipment which could have been essential to calling the emergency services or something like that. So, erm, I think we have to be careful, erm, how these messages

are articulated, but at the same time, we have a responsibility as an industry, to make sure that any new services or technology capabilities are, er, checked for being safe and that we constantly revisit that. And er, erm, you know, the-the impact of technology health is a very, very hot topic right now, and it's good to see you know more is being put in place to support people er, in that respect. And for me, I think the next big area is the environment and sustainability, erm, because we really do need to work harder as an industry to make sure that we take a more sustainable approach to the way in which deliver networks, the way in which we, er, you know, produce phones, recycle phones, er, and more.

[01:00:50]

*Yes, and batteries, that's another big challenge that's still, er, the recharging problem is-is one of the issues, isn't it?*

[01:00:57]

Batteries is probably the single biggest barrier to, er, technology evolution right now, whether that's in, er, mobile phones, other consumer electronics, electric vehicles. Er, and it's the one thing that we've not been able to easily crack. Erm, you know the UK, again, with ARM has been pioneering in reducing the power consumption of the chips that power these devices and that was the way we actually engineered around the battery problem, erm, the, er, we-we've made some predictions around, er, the introduction of solid-state batteries, which will be a new technology, which will, er, probably provide you know, 20% better performance and the will be lighter and perhaps, er, you know more predictable in the way that they work. Er, but still battery technology remains a-a major challenge for the industry.

[01:01:48]

*Hmm. Erm, and the other thing is you've talked a lot about the hardware, I mean, that's sort of, you know, you're—obviously, the handsets are the visible thing about how the industry has changed. But there have also been some, er, really sort of, erm, er, extraordinary rags to riches to rags again, kind of stories in the industry, haven't they? If you think about companies like Nokia and-and Blackberry. Erm, and, even going back to the early pioneering days when, er, when mobile phones first began to appear, erm, many companies have-have-have got their fingers burned, even some of*

*them with fantastic technology. So, do you-do you sort of look at that in your museum as well?*

[01:02:16]

Erm, we've tended in the museum to focus on the, erm, on the hardware for now. However, er, you know, it may be in the future that we look more at the software. Erm, the hardware is the very tangible part of the story. But you're absolutely right to highlight the hardware, er, the software as well. Erm, so, again, another very pioneering part of the technology for the UK, er, SCION, er, who had many of the early, er, personal organiser products, erm, had the software which went on to form, erm, a lot of the foundational technology for the Symbian operating system, which was the kind of early rudimentary smartphone platform that Nokia used. Er, and unfortunately, that ran out of steam, they didn't evolve it fast enough and we saw the ascendancy of IOS from Apple and, er, Android from Google.

A Blackberry, as you highlighted, as well is another example of a-a- company that, erm, you know, lost their way, erm, they felt that they had a good solution, they felt that they had the optimal solution, they didn't feel like they needed to progress their software as aggressively as some of the other players 'cause they felt that going down that kind of you know, gr-massive compute platform, er, with lots of memory, and storage and those sorts of things, a-a-and a lot of battery consumption was the right way to go, er, but it turned out that, er, in the of the day, that was the direction that the world went in.

And, er, you know, user interface is a huge part of, erm, the mobile phone, you know that started, erm, primarily as a kind of you know, physical buttons and the software and the hardware started to get blended together, some amazing done on-in the early years. And now, were moving to all sorts of other things like artificial intelligence, er, voice interaction, gesture interactions, er, which will undoubtedly signal where the technology goes in the future.

So, we-we-we talk to some of those things in the descriptions around the phones, but we don't actually capture the software itself.



[01:04:16]

*Hmm, so, plenty of areas you can expand into in the future maybe.*

[01:04:21]

Oh, it-it-it's limitless, we have so many ideas of things we could do, whether you start, you know, collecting smartwatches, or PDAs or sim cards, or you know, start thinking more about what the software was like on the devices. Erm, we've had to be very, very, disciplined just to start with focusing on the phones themselves, er, we'll get that nailed down, and then we can move on to the other areas. But this is a-this a lifetime's project ahead of me, you know, I-I-I'm, er, I-I-I'm happy with my team who are, er, supporting me to, er, you know, having made this tremendous start and had such an impact with the mobile phone museum, I think there is so much more we can do in coming years.

[01:05:06]

*And presumably, that-that is your proudest achievement, this is usually a question that we ask people, erm, but in your case, I would imagine that would it?*

[01:05:13]

It is, I mean, building CCS Insight with the guys here, is-is-is-is very, er, a very big thing, but I don't think that's the sort of thing, you know that will get remembered, whereas the mobile phone museum is hopefully, a legacy that will live on way beyond me. We've amassed this, erm, amazing, erm, collection and er, we'll be able to continue that long into the future and, you know, we'll have the assets, we'll have the website, we'll have the knowledge. I hope that we will record lots of the stories around the phones because to me, erm, you know, that is-is as important as anything else because anyone can look up the spec of what camera did it have and what battery did it have. But you know, the story of how did this phone come to fruition, what, you know, what had to be done to make this a possibility? A lot of that is stored in people's heads, and er, you know, my goal is to unlock all of that, get it written down in a way that you're, erm, archiving the, er, the industry as well and, er, make sure that that is captured for generations to come.

[01:06:02]

*Well, I can only wish you luck, what a fascinating topic and it's been great talking to you, Ben Wood. Thank you very much.*

[01:06:07]

Thank you, Jane, it's been an absolute honour to-to come and talk to you, thank you for your time.

End of interview.