



Transcript of Podcast from Industry Day, Service Week 2016

Growing Your Service Business in an Age of Digital Disruption

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Full Podcast recording available at: <http://sms.cam.ac.uk/media/2352099>

Transcript of Podcast:

We chose digital disruption as a main theme for this conference, linked to growing services, just because of what's going on in the world. If you think about in the business to consumer world the role that digital technologies are playing in changing or shaping new business models. So think of AirBnB, think of Uber, think of what Facebook is doing, they are all digital platforms that change the way individuals interact. You can then add to that the business to business world – so the Internet of Things, more and more connected devices, data coming off cars to tell you where they are, GPS tracking – it's just a world that digital technology is becoming so much more important and shaping the way organisations operate.

Industries have changed dramatically. If you think about the first factory I went round was a production line for cars 35 years ago, and it was then people with spanners, putting wheels on cars. They worked along automated assembly lines and so on, but it was a very different world. Clearly, when we are making cars we will still have assembly lines, we will still have robots attaching many of those devices, but what has changed fundamentally about manufacturing, is the way in which data and digital technologies are shaping products. One thing we have been talking about at the conference is the notion of a digital twin. You can imagine every product in the world with effectively a digital replica of that product. The digital twin would contain the original design information, and any modifications you've made to it would be updated in the digital twin. The digital twin might have data on – let's say it's a car – on how many miles it has driven, how many hours its driven, how many times it's been started, what the exhaust fumes are from the car and so on. You could start to build this digital replica of your physical product and if you had that digital twin, then you could say that now we need to upgrade the tyres or change the gaskets or improve the engine in some way. If you could work out how to do that using the design of the twin, then you can work out how to implement it in the actual car. This whole digitalisation of products and the technologies that make them, really change the game of manufacturing.

Siemens - The thing that you see, increasingly, is people trying to connect up across systems. So, rather than Siemens providing little bits of kit – they still provide the kit – they are also thinking about how do those bits of kit interact with machines that other people provide, how do you optimise the system, how do you look for energy savings, how do you run the system more effectively. Clearly if you can save energy, then energy is a significant



input cost to that industry, its valuable for the customer. There is a revenue share model where Siemens and the customer share some of the savings that accrue. Actually, the savings were enabled by installing some of the Siemens sensors and technology, so Siemens secure new sales of their products. It's a win-win situation for both the provider and the customer – and that's what people are really looking for in the service business models.

You could argue that many products for years have needed a service offering. Anything that continues to operate and wears out over time, needs some element of service. You've always needed services with your car, you've always needed someone to replace the lightbulbs, or you replaced them when they wear out in your house. So, there's always been a service element to products. I think that what's changing is that increasingly we are then tailoring the service to what's really needed by the customer. So the wind turbine is a great example; like wind turbines in the middle of the ocean. If they are just standing there, operating, I need to send somebody out there to inspect them to check they are okay. If I've got a load of sensors on the turbine and that is feeding back data to me in real time, I know I can predict when one is about to break down and I can send out a technician to repair it before it breaks down. But I don't need to send out a technician just because it has been operating for 1,000 hours and the manual says you should now go out after 1,000 hours. You can be much more tailored with how you use your limited resource to make sure things are serviced, maintained and looked after well.

Increasing safety, improving efficiency, delivering better outcomes, making the system more reliable – there all sorts of benefits that come from services beyond just a cost saving model.

Trackunit – I think the thing that is fascinating about Trackunit is effectively they are developing technologies that you can retro-fit to vehicles in the construction industry to monitor the load on those vehicles, and if you know the load that is put on the vehicle, then it has got implications for the residual value of the vehicle. Let's say I've got a truck that has been in operation for 3 years, but actually the data tells me that it has only been driven for 1,000 hours in those three years. That's really valuable information, because if you assume that in three years it has been driven for 3,000 hours, but it has only been driven for 1,000 hours it is worth a lot more in residual value. So Trackunit is developing technology to track those things. It is then using that technology to build a better connection between the driver, or the operator of the equipment, and the equipment itself. They are exploring with some really interesting models to say how do we get operators to take more pride in looking after the equipment, operating it safely, and so on. If you manage to do that, and you make the operators change their behaviour, you extend the life of the product or the technology, you can reduce the insurance costs associated with it and you can increase the residual value. It is a really interesting technology to try and make, effectively, a perpetual product extending the life of the original product.

Uber - Uber was really interesting for a number of reasons. First of all, they were very clear about describing themselves as a technology business, first and foremost. They were worrying about how they develop technology to build a platform that enables a market to operate. Then in that market, they were worrying about how you make it efficient. So they



talked very clearly about the drivers as well as the riders effectively being customers of the platform. So Uber puts a lot of thought into how to create a platform that allows drivers the flexibility they want, allows them to achieve a decent income, and that allows them to avoid ever driving around with an empty car – you want high utilisation if you are a driver. They seem to spend as much time thinking about that side of the model as they do thinking about how they create the seamless customer experience for the rider who is going from A to B. I thought it was a really good illustration of how digital businesses think differently about the way the world works and what their role is in the ecosystem. That's what takes you into platforms and what people talk about as multi-sided markets – Uber can make money from both the rider and the driver by charging a percentage from each of them for connecting them in this seamless market.

There was some really interesting data about the number of rides that started within 200 metres of tube stations or bus stations, particularly in outer zones in cities. Take London – once people come off the tube they take the Uber car the last little bit home. They talked about 'last mile logistics'. They'll do the transport for the last little bit of the journey. When Uber is planning to scale up its business and move into new cities, one of the things it is doing is it is tracking the number of eye-balls in the new city. I have the Uber app on my phone, I live in Cambridge, every so often I will open the Uber app to see if Uber has come to Cambridge yet. Uber knows when I have opened the Uber app, and knows I am in Cambridge, and if lots of people are doing that in Cambridge, it knows there is a pent-up demand for Uber, and that is partly what drives its decision about where it goes to locate or open up next. So the data is not just useful in terms of the existing operation, but also about thinking and planning about how you might scale-up the operation. Then of course the data is incredibly valuable to other people, who have to worry about urban infrastructure. If Uber generally does rides from bus stations over to people's homes and so on, then you could start to think about where we put park and ride locations and how do we make space for Uber cars to actually get people from the park and ride location back to their home.

Scaling Up Research - One of the things that came across to me about the challenges around scaling up are that often, particularly in services, people end up not going beyond the piloting stage, this is one of the bits of research that we've seen. People will offer a service, they'll do that successfully, but then when they come of offer another service they'll almost start it like a new service, and they won't think about how do they optimise the existing service. They instead treat each one like a new experience. I think that's an issue. The thinking differently, particularly in the digital world – thinking about what opportunities digital technology opens up, how you can create value for customers, and indeed how you define your customers is another really important lesson. The third lesson, around scale-up, is the thinking all the time about how you are going to disrupt your own business.

One thing that was fascinating to me in the talk given by Uber, was the notion of UberPOOL, pooled rides or shared rides, they are deliberately using to try and disrupt UberX – the single person in the car. They are already thinking about how they can use autonomous vehicles to disrupt UberPOOL. So Uber as an organisation is constantly questioning its own business model and saying 'how can we disrupt ourselves'. For large established businesses I think you have to go through that same thinking and constantly challenge the way of



operating and saying how can we disrupt our model today and make it better and more fit for the future. In doing so that is what enables you to successfully scale up and indeed survive.

Brian Holliday from Siemens, particularly talked about the Critical Success Factors, and how they made him think differently about the Siemens business and their journey. He was very clear that they are on a journey from product to services becoming more important and how they need to think differently to how they configure Siemens. He found that the Critical Success Factor framework was a useful framework to help them think about that transformation journey.