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The future is now for our communities: it's time to act

Presentation by

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Futurist

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(Please note this presentation refers to graphs and images. See them in the video version of the presentation or see the accompanying presentation on Mr Higgin's website here.)

About the presentation:

What kind of future do we want to live in? What kind of world do we want to leave for our children, our grandchildren, and all of those who come after? The time has come to stop asking questions and get on with ending the inequalities that are holding our communities back. Paul Higgins has made a career of assisting organisations and individuals with strategies to change the future. The future won't change itself. It's time to act now.

Denis Moriarty, Our Community Group Managing Director
I want to pose a question to all of you now. What kind of world do you want to live in, in the future? What kind of society do you want to leave for future generations? Our next speaker, Paul Higgins, has made a career of assisting organizations and individuals with strategies to change the future. Paul argues that if you want to improve the future there's no point waiting for the right time. The future won't change itself. Paul's keynote today will explain to us why now is the time for communities to take control. Please make him welcome.

Paul Higgins
Thanks, Denis. That's my head up there [Picture] and that's my Twitter handle, if you feel like following me after I've spoken today. We put a lot of stuff out on Twitter every day, about what's happening in the future and what might change.

When Denis asked me to talk about this stuff today I had two responses. The first was that I wanted to do it, because it's fantastic to be in a room full of people doing so much work to help their communities be better. The second was that I really struggled to decide what to talk about. So I rang Denis and we had a long conversation (as those of you who know Denis might expect, a very long conversation) - a very detailed and interesting one.

I ended up with two pages of typed bullet points about what I should talk about. Denis then refused to give me six hours to talk, so I was in a bit of trouble. I thought "I'll go and chat to a few people I respect in the sector and see what they think I should talk about." I can use that. I ended up with three more pages of bullet points, which didn't really help me that much.

That's why I thought I'd do something slightly different from my normal presentation. I actually want to walk you through my struggle. That really encompasses a few whys for me. The first of those is imbedded in this photograph. [Picture]

That's me in 1970 with my grandmother, my father and my mother. I know what you're thinking; he looks about 40 now, how could he have been a child in 1970? That's not funny. [Picture]

That’s a picture of my father receiving his PHD in Methodology in 1970. He’d left school in Year 11, because the family couldn't afford to have all the children stay in school. He went back later and did night school and did various other things and ended up doing a PHD when he was thirty, because he felt there was lots of opportunities for him and his family if he did. After that photo was taken in England, we ended up coming out here to Australia, because he felt that England was struggling a bit and he wanted us to have more opportunities. From that moment on, I had drilled into my head by my mother and my father - my father's a louder voice, my mother's more persistent - that those who get given an opportunity have an obligation to give something back.

I got these opportunities through the hard work of my father and my mother. I got those opportunities from a free education through school and University. I try, not always successfully, but to have that guide my work. I try and leverage the skills I have and the opportunities I've been given to help other people do something to contribute towards their communities. That’s the first why - why I'm here in the first place.

If the future is now (and that was the topic that Denis gave me) why is that important? Why is thinking about the future important? I was just talking to one of the students from Bendigo College outside and she said “Futurist? I didn't even know that was a thing!” It is a thing. So I thought I'd explain what futurists are, just to start with, because I think that's important.

If you go and try and cross the road - not at a crossing like the Beatles, but where's there's no lights or crossing - you're actually projecting yourself into the future. You're going “I can see that vehicle, I can see a cyclist, I know how fast they're moving. I know how fast I can move. I know where I can be in five seconds time, can I cross in time?” We’ve all got the capacity to do that. The trouble is that that capacity was developed, in an evolutionary sense, thousands of years ago, and in an evolutionary sense we haven't really changed much since. And the threats that people faced those thousands of years ago were totally different to the problems and threats you face today.

Five thousand years ago, if you heard a rustling in the bushes you didn't sit down and have a strategic planning meeting. I said that one day to a group in a not-for-profit sector and one guy actually put up his hand and said, "We would have!"

No: then, you ran away, or you attacked, or you formed an offensive alliance, and if anybody did have a strategic planning meeting they were probably killed, and that's why to this day we're not very good at strategic planning. But back then we became pattern recognition machines. We developed a very efficient system for dealing with the problems we faced at that time, which is if you have a threat, you needed to decide what it is and you needed to act quickly. It wasn't a very contemplative process. Unfortunately, that results in things like this picture, [Picture] or more disturbingly, this, [Picture]

which is an ultrasound of a man's testicle (I'm very pleased to say that I have recovered fully). We're hardwired to recognize patterns, one of the patterns we're hardwired to recognize is faces, and we can recognise faces even where there are no faces.

What that means, from an evolutionary perspective, is that we're not very good at thinking about the future in a modern context. We need systems and tools and ways of thinking about that. I like this meme from the internet, because it talks a lot to me about what futurists are and what they do. [Picture]

I get a lot of these crystal ball jokes. And I've got a tip for you; if you go through customs on an international flight and have to fill out a transit card, write ‘Futurist’ on it. Then when you walk up to the customs person they go "Futurist - what's that?", and you have a friendly conversation about that, and they never search your bags.

This is what my family thinks I do. What’s the road ahead and what are the questions? My partner is still surprised that people will pay to listen to me talk. Indeed, she often pulls out a hundred bucks and says "I'll give you this if you'll shut up." People who know me know that I've never got the $100.

On a more serious note, the real reason I put up that picture is because what we actually do is help people put together a bit more of a picture of what the future might look like in order to create better strategies to meet it - with the caveat that there are a lot of gaps in the jigsaw, and at the end of the process those pieces will still be missing. If clients come to us and say they want a picture of what their industry will look like in a decade's time, I'll say "That's a fantastic thing to do; but I can only guarantee you one thing. It will be wrong."

If you have someone come into your organization and saying, “I can tell you exactly what's going to happen and what you should do” you should unceremoniously throw them out the door. If, on the other hand, you have someone who can give you a coherent story about what might happen that has all the assumptions in the story spelt out, so you can think about that in two months or six months or 12 months' time and make up your own view about what's changed since, then that person is worth listening to. That’s my first take-away today: don't listen to gurus. Have people around who can give you intelligent thinking, but use your own critical facilities and the critical facilities of your organization.

I thought “Okay, I can talk about what a futurist does, and that gives people a bit of a grounding. So, if I'm in the business of putting a few more pieces of that jigsaw puzzle together, perhaps I should talk about what the world looks like today.

This guy is Neal Stephenson, the science-fiction writer - I like putting his picture up, because I have more hair than him - and he has this theory that if you drop someone from the 1930's into the 1970's, they would go, "Holy…, what the….?" There are jet airplanes, we have skyscrapers, we've gone from Model T's to Ferraris, and there are computers.

If you took someone from the mid-1970s, though, and dropped them into today, they'd go, "Oh, yeah." The plane I flew in to come to Australia in 1971 (not the actual plane - though I suppose it might be - but the model) is still in commercial use. We still have much the same skyscrapers; cars are much improved, obviously, but still look very much like cars did fifty years ago – a lot of the stuff in the modern world is subsumed, and is actually invisible to a casual visitor. The only thing they might notice is "Why are all these people wandering around looking at little glass screens?"

I've put together a few bits and pieces – only a few bits and pieces, because of the time limits – about what's going on. I think we stand today in the midst of an amazing amount of change. I

was talking to a young Muslim woman last week – I say young, she's 39, I've got to the age where someone in their late 30s is young – and she's a developer working with a company developing application program interfaces. She's 18 years younger than me, and I said to her "I just wish I'd been born when you were born." She replied "No, I wish I was born 18 years later than I was."

There's just so much opportunity and so much change happening. We stand in the middle of a one-hundred year, two-hundred-year - pick a number - transformation of our energy system, driven by primarily not by environmental issues but by economics. This stuff is happening right now because it's actually better economically. You've got companies like this one - Power Ledger in WA - which is building blockchain systems for peer-to-peer trading of solar energy.

Now what most of you heard just then was “Blah, blah, blah.” But what that means is the capacity for people to take control of their own energy generation, and the trading of their own energy generation, quite easily.

We stand in the middle - or at the beginning of the start of the middle - of a transformed energy system. We stand in the middle of a 100-year transformation of our transportation system.

That is a Chevy Volt. It’s an electric car, but you can't really tell. To a person dropped in our world from the 1970s, it looks like any one of the other cars. Sometime in the next (probably) seven years, we’ll reach the point where it is the same cost for any of you in this room to buy an electric car as an equivalent fossil fuel car - not a clunky heap that doesn't work properly, but one at the same quality standards - and that vehicle will be $1500 a year less to run. Once that happens, we'll get a change similar to what we're seeing now with renewable energy, because then who's going to buy a fossil fuel car?

If I can give you an electric car at the same price that works perfectly and costs you $1500 less to run, I can't see many people buying fossil fuel cars. I think that - boring and suburban - is the future, rather than this.

I love Elon Musk to death, but I think GM and the manufacturers are going to win this war rather than Tesla itself.

Beyond that, we're on the verge of driverless vehicles. At some time in the next three or four years we'll start seeing more and more of these on our roads. It will probably be 10 or 15 years before we see them massively deployed. They're going to change the transport system completely. You're going to see unintended consequences - changes you haven't even thought about happening yet (I'm writing a book on this right now) - consequences for parking and urban design and Federal excise and a whole range of things. One of the things happening right now is…

Another AI-powered device gets the FDA's blessing

In an ongoing effort to get more AI into healthcare, the FDA just approved the marketing of an algorithm that detects wrist fractures.

This is the third AI based application approved by the Food and Drug Administration in the last eight or nine months for use as a medical application.

The one before it is diagnosis for a retinol problem related to diabetes: they used to have to go to a specialist to get tested, it now can be done by a GP using the application. I've seen massive movements of power and information towards the edge, including things like this.

ELECTRONICS

Protecting Cassava from Disease? There's an App for That

An image-recognition smartphone app uses AI to help farmers in sub-Saharan Africa identify up to five different diseases

Cassava is one of the biggest plant crops in the world and if you're a farmer in sub-Saharan Africa you can now have on your mobile phone a system which will let you diagnose, via AI, health problems with your plants.

Many of you may be thinking at this point “So what?” It’s a fair question. If you think about those driverless vehicles (they're a little way away, but they will be happening in the next three or four years) we've calculated that one of them - as an actual transport service where you don't own your own car and it comes and picks you up - can get costs down, at a shared level, to 7c a kilometer. That's a commercial rate: we believe a Government service using those vehicles would actually get down below 5c a kilometer. Think about that. That means that (ignoring tolls) I could get from here to the something like airport for about 80c, compared to a taxi at something like $45. There are two aspects to that. One is that all the employees in your organizations will have much lower transport costs, which is fantastic because it means that your dollars will go a little bit further. It also means that people who couldn't previously afford to have personalized flexible transport will be able to access it. And there are a whole lot of models that might come from that.

If I go back to my blah-blah-blah peer-to-peer blockchain technology, that gives you the capacity to actually own - as a community or as an individual - part of the solar operation somewhere else in the world, not just on your own property itself. You can imagine businesses saying, "We'll donate our roof." People in rental accommodation, who previously couldn't get solar panels, will be able to own those things or get some benefit from them.

That's just a couple of examples. When I was thinking about this, though, I thought “I could stand up here and go, bang, bang, bang and give them 15 more examples, but in the end, they'll walk out of here and in two months' time they won't really have retained anything. It might have been entertaining, and some of you in the room might have gone "Oh yeah, I can use that particular idea, or that one." I've seen a lot of presentations where people get up and do this amazing thing and entertain people, there's videos and there's things flying around and there's all this technology and there's all this stuff happening, but then people walk out of the hall and, a month later, they haven't done anything with it. I was reminded of this video…..

[VIDEO RUN from *City Slickers*]

Curly: Do you know what the secret of life is? [holds up one finger] This.

Mitch: Your finger?

Curly: One thing. Just one thing. You stick to that and the rest don't mean shit.

Mitch: But, what is the "one thing?"

Curly: [smiles] That's what *you* have to find out.]

Paul Higgins

I love Jack Palance. So I went "Okay, what is the one thing?" I did a Masters' degree from 2000 to 2003. I've been doing this work for another 15 years. If I could think of the one thing of that18 years that I could condense all of that down for you, that you could take away… Because when I spoke to Denis, one of those things in those bullet points was that people here work really hard, it's a hard slog in this sector a lot of the time, and they come here to be rejuvenated, to be inspired, or to get something they can take home and do something with.

I thought "What's the one thing I could condense down for you guys?" The capacity for you to take all that stuff and make more sense of it! Even I, doing this in my work every day, every week of every year, still get overwhelmed by how much stuff is happening out there and the change that's coming in the world that will impact on you guys.

I picked one thing, for two reasons. One, because it's the best thing that I've seen in all the time that I've worked in this area for understanding the strategic landscape of what might happen and then turning it into something you can use.

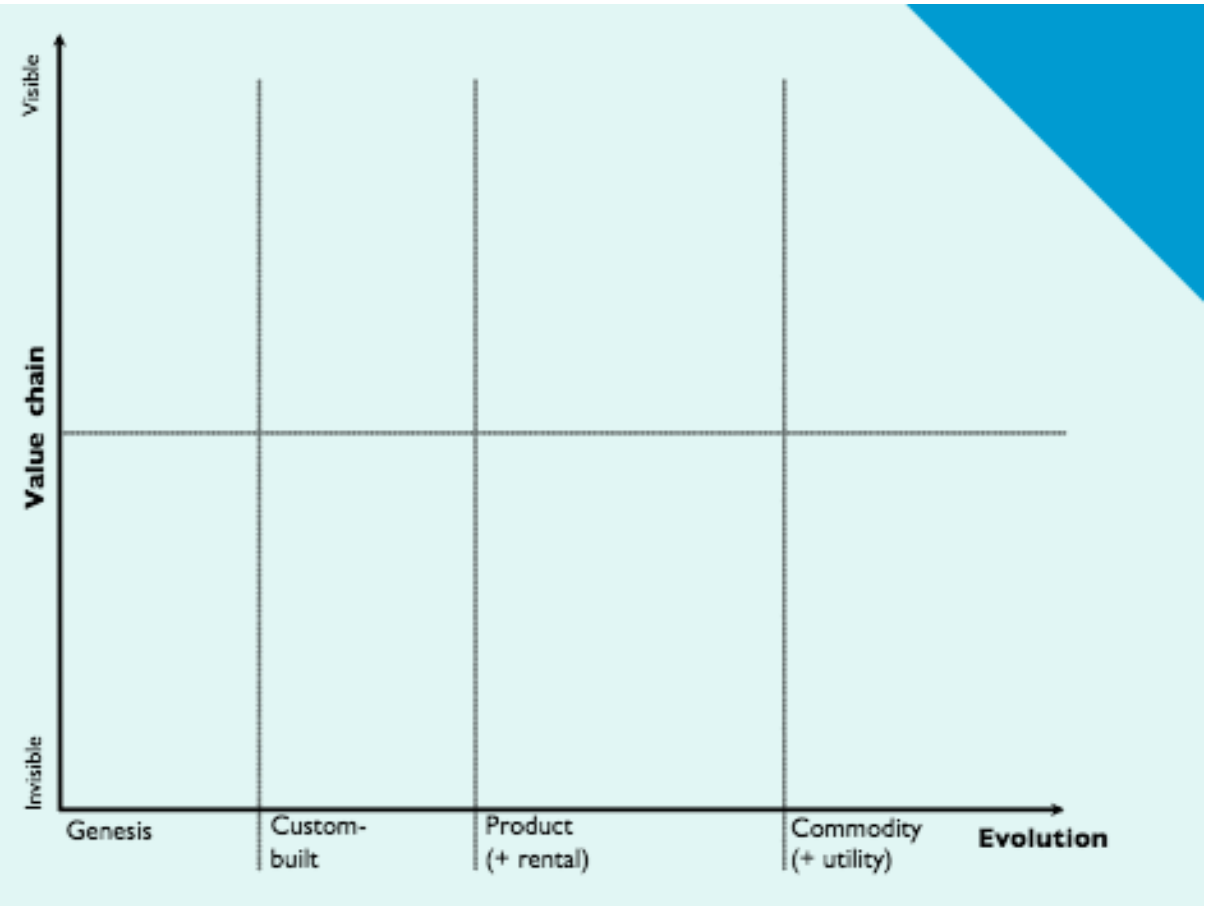
Two, it's completely open source. It takes a bit of work, but if you like it you can access it completely free online. What it does is answer that question about "How do you eat an elephant?" One bite at a time, right? You can have all this stuff, blockchain and bitcoins and solar and robots and automation and future of work and blah, blah, blah.

If you can break some of those up into their component parts in a way that makes sense, you can understand that landscape. You can have conversations in your sector and in your organization that make sense.

It's about understanding the patterns of change. And it's also about two whys. The not-for-profit sector, compared to some of the commercial organizations I work with, is very good at that first why, the why of purpose. We know why we're doing this stuff, we know what we're trying to do, we know who we're trying to serve.

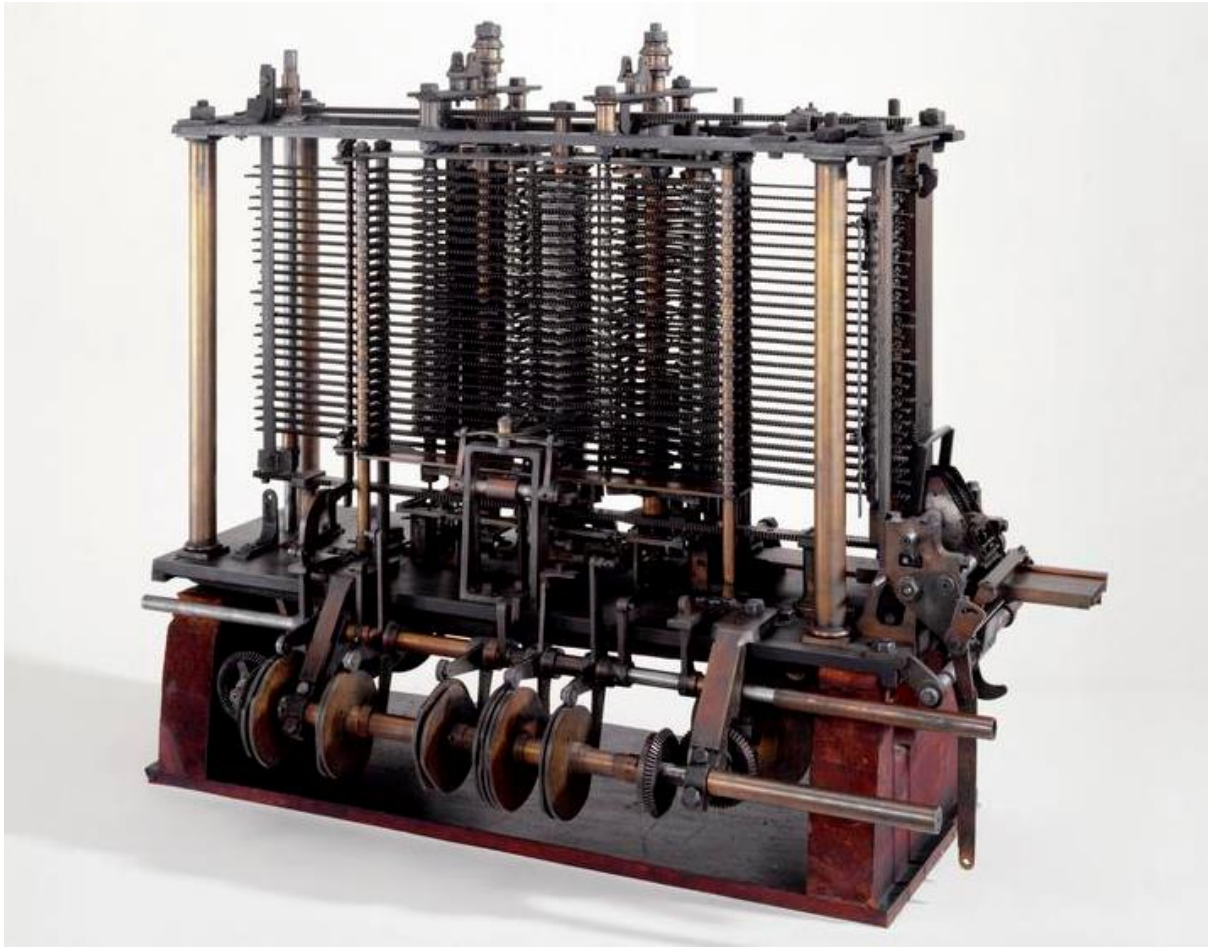
But there's a second why, which is the why of action. the why of movement. If we have limited resources, and all this change is happening, then where do we put out effort, where do we focus those limited resources today?

It looks like this.



It looks very simple so far, so your brains aren't really hurt yet. That's from Simon Wardley, who developed this system in The Leading Edge Foundation, in the UK. It's all out there for free, he's written a book on it which is published on Medium for free.

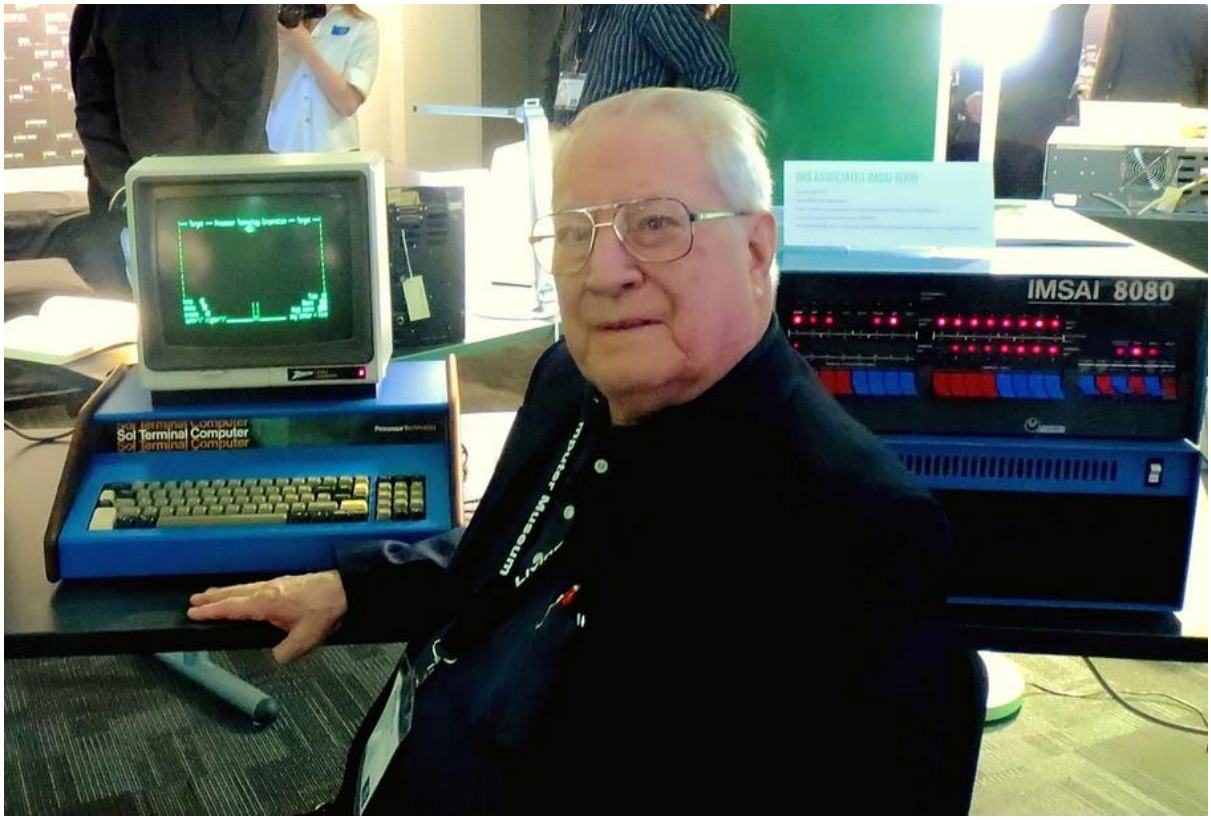
This is a map for understanding the strategic landscape. What it says is that every idea, every technology, every business practice, every business model, goes from the left-hand side to the right-hand side. It goes from Genesis, or the first idea, to custom-built, then to product, and then to a utility. To make sense of that I just want to give you an example of a category we've all got some experience with.



That is Charles Babbage's Difference Engine in the Science Museum in the UK. Charles Babbage essentially designed the basic architecture for computers back in the early 19th century. That was the idea, the Genesis.

Just so we don't forget (because we always do) women played a huge part in this process too.

Ada Lovelace programmed Babbage's analytical engines. She was actually the first ever software programmer in the world.

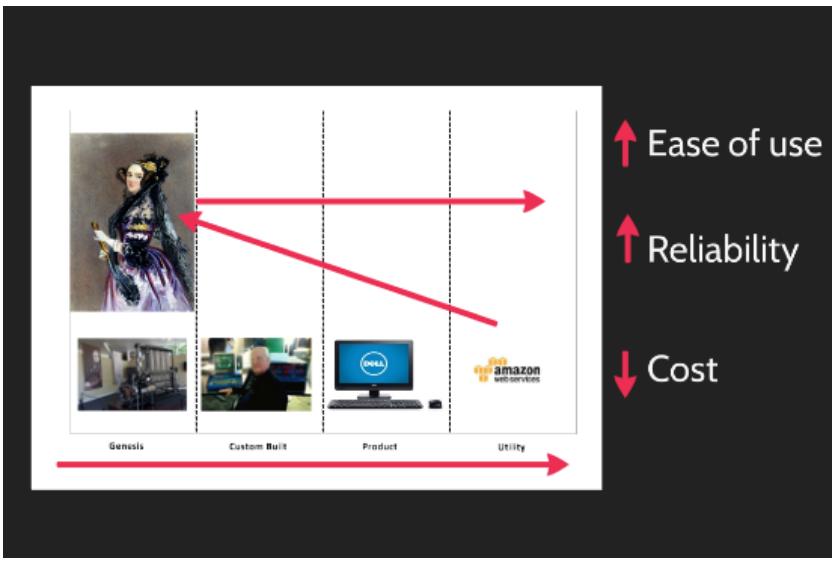


If you then go forward to the 1970s, to our personal computers, that's Gordon French who founded the Homebrew Computer Clubs. They met, and they made stuff and they broke stuff, and they sold stuff, and they swapped parts, and they built computers. That was the process that has been given a lot of credit for the explosion of the computer in history. Then we get to the products phase - a computer you buy in a box and take home and plug in. Some of the younger people in the room won't remember this, but it used to be quite difficult to do even that – just attaching a printer to a computer was quite difficult. There are different phases of that product.

And lastly, you get to things like Amazon Web Services where people don't have computers anymore - you just plug in to the service in the same way as you plug into your electricity. Who here watches Netflix? I'll go the other way, who doesn't watch Netflix? More than I thought. Netflix runs its business on top of Amazon Web Services. It couldn't exist and can't work in the world without that utility service.

Everything moves inexorably to the right-hand side of the diagram. When that happens, there are three effects. One; you have an increased ease of use, so stuff gets easier and easier to use. The platform that Denis and Vanessa were talking about before is exactly that. It's a utility platform to make HR practices easier to use. Two: it gets increasingly reliable. How frustrating is it now if Netflix doesn't work for three seconds? It's amazing how far we've come with some of those things. Lastly, you get a huge reduction in cost. What that means is that if I'm a venture philanthropist here in Melbourne, where social metro partners are investing in start-ups that are trying to do innovative things, I can build on top of those services – which is a lot easier, costs less money, and is not as hard to do. I can take on more risk in that process, so the money we put into regional philanthropy goes further.

This all means you can build something on top of that. If you don't have to worry about a lot of this HR stuff, all that time and difficulty goes away, and you guys can talk about building something else. And inevitably that cycle continues. At this stage that may all sound a little academic, so, let me give you a couple of demonstrations - because this model is more than that just an evolutionary model. It's a map. A map basically has five characteristics. It is visual, so you can see it. It's contextual – there's no point trying to find your way to Phillip Island with a map of Iceland. It has position - you know where stuff is. It has an anchor, so if you don't know which way North, South, East or West is, you've got a bit of a problem with using that map.



In this map, I can't point to every single one, but the bottom access I've already described. The left-hand access is about visibility to the customer or the client.

Down at the bottom is more invisible, towards the top is more visible. In this case, the anchor is customers or clients. The whole map is focused on the question “What are we trying to do for customers and clients, and what do all the components look like from that?”

And the last point is that a map has capacity for movement. If you can't move using a map, you've got a problem. The difference between using this map and most standard business maps (which probably aren't really maps, by that definition) is it gives you the answer to the question “Where shall we focus our resources?” We're all going to start a coffee shop. The focus is the customer, so we want, great coffee, great cakes, location, fast service. That’s what the customer wants. OK, we've got this great coffee machine - I've put it over in that custom-built column because it's one of these Italian ones with 35 knobs and 12 gauges and five levers and only Antonio can make it work. We've got a kitchen, because we want to produce our own stuff. We've custom-built this thing, we've put tens of thousands of dollars into it, because we're real foodies. You can map all of the stuff out there. Where does it sit? How visible to the customer is it? Where does it sit on that evolutionary scale?

And then you can start having conversations about “Where will we do something different?” If Antonio is the only one that can make that coffee machine work, why don't we get a utility coffee machine instead? You can get coffee machines now with an iPad or a tablet on the top and all the gear underneath, and the coffee comes out the spout without having to worry about all this Antonio stuff. We could say “We're having a lot of trouble getting reliable staff, let's put some robots in.” We've already seen that in cafes around the world - more as a gimmick at this stage than a real alternative,but heading towards that.

While I've said that everything moves inexorably to the right, sometimes it can go the other way. If we sat down and said we're going to build a coffee shop utterly from scratch, the first thing we would have to do would be to build a power plant.

Normally that wouldn't be necessary, but if you go back to that technology I talked about before - the blockchain, the peer-to-peer trade, and the solar - you could actually build a power plant in that coffee shop and say okay, we're actually going to put that up and we're going to have training systems with it, and there will be times of the day where that solar power will actually have more output than we can use and we're going to donate that to the community.

In all of these conversations you can certainly say, “Well, we want to keep the old coffee machine, we don't want these robots, because our customers really want the personal touch.” Maybe they do, maybe they don't - but once you start talking about those things you can have a conversation at the same level. Should we do this thing here? If so, what are the effects in the map? We could occasionally go back the other way, where we say to our customers "We're completely running on renewable energy, and we're donating our surplus to the community as well, so why wouldn't you use us for your local coffee shop?"

We’re writing a book on the future of driverless cars, so we use this map all the time ourselves.

There's a map of the current car system at a very high strategic level. You can then go down and do subcomponents…. this is a subcomponent of the energy system. Most people drive about 300 kilometers a week. A Chevy Volt has a range of 380 kilometers. You can charge that car once a week (or more times, if you want to). You can charge it at home from the solar panels on your roof. If your car is home on the weekends, instead of feeding your excess at one o'clock on a Saturday afternoon back in the grid, you can put it in the car.

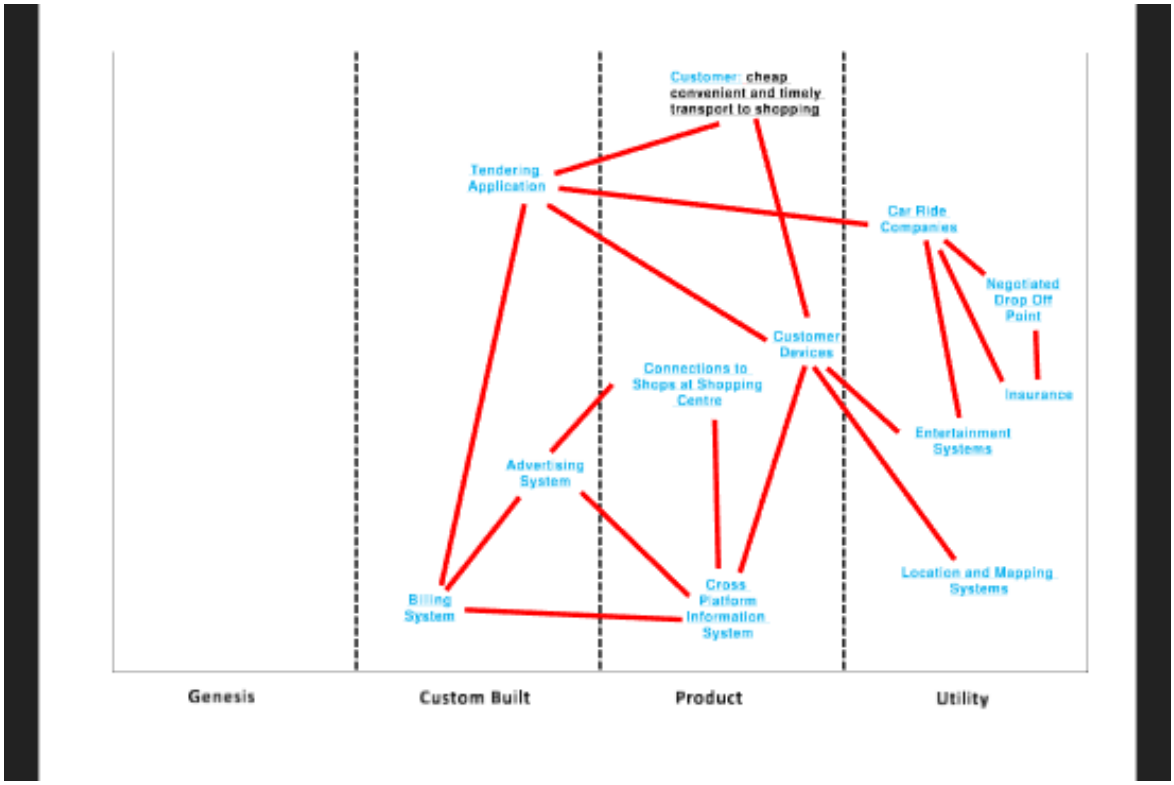
If that's the case, then all of this goes away. Why do you need petrol stations? Because no one's going to be charging at petrol stations. Petrol stations operate on impulse buying. They make money mostly because you're going to buy an ice cream or a soft drink or cigarettes. So petrol companies are in trouble - and if petrol stations aren't profitable enough, what happens in the interim stages when half of drivers have electric cars and half haven't?

You'll have the opposite problem to the one we have now, where you can't find anywhere to charge an electric car. In five years' time, you'll probably having trouble finding petrol stations to fill your fossil fuel car. What this map does start us thinking about these things and talking about them in a way that asks "If that's what the future looks like, what could that mean for us?"

And lastly, this driverless car stuff is moving towards what we call transport as a service. We did an exercise a few weeks ago with the Taxi Services Commission in Melbourne. They've been kicked around a fair bit in the last few years by taxi license holders and customers. On social media, the taxi drivers decided to have a "Tell us your taxi story" on Twitter? I don't know who approved that, but go and read it; it's not very helpful.

If we get to transport as a service, you won't own your car. A car will come and pick you up. If you think about that … [PICTURE] this is from GM - we have a peak transport need in the morning and a peak transport need in the afternoon, so there's a lull in between where cars aren't used as much.

So we challenged various groups of the Taxi Service Commission to come up with an idea of a business model that they can build on top of that graph. This is what one of them did.



This is a service that we would supply to customers that would give them cheap and convenient transport to shopping. It would tender out from a tendering application to the driverless car companies - because if we get to the stage of having enough cars supplying transport, but we don't own them, there'll probably be four or five major companies with two or three hundred thousand vehicles each that will come pick you up and take you to wherever you are.

We built that into advertising systems, because if you're a shop owner at, say, Highpoint, up the road here, then I may be willing to pay for your transport to Highpoint if you just enter my store. A thousand people seeing my ad versus one person walking into my store…. That makes a lot of difference. We can then start having this conversation about which parts of that model shall we be in, and what's going to change, and what other things are going to change? What can we build on top of that? What opportunities are there for the not-for-profit sector?

If the future is now I have three things to leave you with. One: listen to futurists, but always remember those holes in the jigsaw, and throw them out if they can't tell you all the assumptions which go with it. Two: The world is going to keep rushing at you tremendously hard.

So I'd like you think about one thing when you go back to your organizations. That is “How can I better understand the strategic landscape in which I'm going to play and the things that are going to affect me?” Wardley’s maps are the best model I've ever seen to do that, and we use them all the time. You may find other models, but the key thing is to understand the strategic landscape so that you can have conversations and understand the technological, demographic, and environmental changes that are coming, so you can build better organizations that will do more for the communities you're trying to work in.

And if fifty of you go away and do that, and email me or Twitter me in six months' time to say that you've done something different in your work based on what I've said today, that’ll really make me happy - that you've actually done something with what I've said, rather than just having me entertain you. Thank you for your time. I'll be around the rest of the day and I'm happy to be bailed up in a corner and argued with or talked to as we go along.

ENDS

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