

JISC
Brian McCaul, University of Leeds
Transcribed 17th February 2011

JK: Jacquie Kelly

Q: Question from the floor

BMC: Brian McCaul

Okay, so, (referring to picture of the University) the University of Leeds, that's highly relevant, I think, to this story. Leeds is, I think is a top ten University in terms of size of its research base, and my job is to commercialise the research that comes out of that, and that's largely creating companies, creating new companies, it is a very particular model around creating companies, in fact, it's created more PLCs than any other University in the country, and I find that hard to get my head around. So it's been very successful at that model.

But there are certain constraints on that model, I think, so when I arrived at Leeds we started toying with this notion of KT2.0, which was using a more collaborative and more sort of open process in terms of some of the exploitation of intellectual property, and it was really that that led to this particular project. And I've spoken at length on what I call KT2.0, touched on it in the session earlier today. I've sort of elaborated a number of principles that we thought... this is what makes a knowledge transfer 2.0, different from the old way that commercialisation is done, and much of that was around using social media, so it was very natural to get involved with JISC, this 'Exploiting Open Innovation' project which Paul has helped on.

But there were kind of risks associated with that as well because the model had kind of worked, it was successful as a model, and if you, you know, if the boy from Derby turns up in Leeds and starts messing with the model, sometimes things can go wrong!

So I kind of had those anti-bodies - this (pointing to a slide) is not actually Brian Clough, this is Michael Sheen playing Brian Clough - and Paul has accused me of being obsessed with Brian Clough, but I've introduced him

because there are aspects of his management style that are relevant to this. So we embarked on trying to change and modify or open new routes to commercialisation at the University, and build on the best of what we've got and not lose any of that.

So that takes me to, not to 1974 but to 2008, March 2008, which is when I joined the University of Leeds expecting to produce great things, and certain things started unravelling, which I wasn't fully aware of or didn't really appreciate the impact it would have at the time. The first of those, (*Slide shows T-shirt referring to collapse of Bear Stearns Bank*), and if that's not legible, it says 'My parents invested in Bear Stearns and all they got was this lousy T-shirt' because that was the very week I joined University, Bear Stearns, the first of the banks to bite the dust, and obviously people were fearful of the moral hazard being introduced in the economy if banks were bailed-out: so they let that bank, and a number of banks, go down before stepping in. From that, we saw the unravelling of the sort of economic certainties that we were all kind of used to, and that had a very immediate impact on the job that we do. I think perhaps more immediately than many other jobs because what we're trying to do is find funding, equity funding, capital funding to introduce to enterprises to make things happen. That's never been easy, sort of funding trajectory for that has been on the decline, but you can see from March 2008 that that really starts to take a very serious decline and in particular this seed-funding, sort of second round of funding that we're dependant on to make things happen (referring to slide on funding declining).

I mentioned some of the PLC portfolio that we have; well we use typically markets like AIM, which closed for two years, very difficult, the venture capitalists were very concerned, very much more conservative as to where they were going to put their money, and you know, that was a double whammy for us; the first thing was the capital markets were locked down, very difficult to get anything to float on the Stock Market, but as the funding crisis and the impact on the budget deficit came through, obviously Universities as well as many other public organisations starts to take it in the

neck in terms of funding, so we've had to shed staff, we've had to shed... And it's a very small kind of team, it's managed to do this with a proportionally small team. So that was my worry, that things were going to come to a sticky end, that my stint at Leeds was going to be short and not very successful...

But we brought to, the strategy at Leeds, a strategy, a series of things, a series of principles we were thinking about already, and these are the ones that we knew... What I want to do is concentrate on the stuff later that we didn't know and then I'll come back to whether it worked, some of the performance indicators.

The first starting point, this is really why the JISC project was important for us, was that we just knew somewhere in the middle of this, this massive research base, lots of technology, very few people being able to kind of do anything with it, social media fitted in there somewhere, and everybody gets that, it's actually 'how' does it fit in? What are the principles and how do you make it work and what's the business model? But we were already thinking about that, and that sort of features in the knowledge transfer 2.0 paradigm. We'd already been thinking about Open Innovation - the Henry Chesbrough notion that, in particular, not all the smart people work for you, and you can see where this fits into social media, you're trying to tap into skill sets that people have and you don't have, and you realise that actually you don't have to recruit all those people, you don't have to have them on your payroll, then this Open Innovation the 'Division of Labour' becomes very attractive. We started working with that and had some success around that.

And we also have been very influenced by Ron Burt, I'm a bit of a 'fan boy' of Professor Rob Burt from Chicago, and this notion that the more connected you are - and social networking has kind of made that more open in allowing you to network with more people - the better you perform. And he's very rigorous in his research and there's lots of empirical evidence that shows that you get rated more highly in reviews in organisations, you perform better, people assess their ideas better, get paid better, all those sorts of things. And so again, it made sense to try and engender a more open approach to

knowledge transfer and work with people external to your organisation. And that helped us to weather some of the storm.

But there were certain other things that I don't think we fully appreciated and in fact, some of the thinking that we'd had prior to that was just sort of, looking back on it now, just a variety of things, just realised that was wrong. One of them I've alluded to already that markets are always rational and that we'd eliminated the central problem of markets crashing, and even people like Alan Greenspan who has worked on this for 40 years, was visibly shocked by the fact that naked self-interest and market don't always work. That's fallacy number 1.

Fallacy number 2, and I think this is really important in terms of how you utilise social media and how you get the benefit from it, is that actually people are always economically rational. They are not only nakedly self-interested, and that's not what motivates them, and we've always believed that, that's sort of been the economic model, that's how people behave, that's how they are motivated, and that's what conditions whether they collaborate or not; and that's just wrong as well. That just doesn't make sense, and that's based on quite a lot of empirical evidence, much of which has been popularised by people like Daniel Pink, if you've read this (*screen shot of Daniel Pink's 'Drive' and other books*), this kind of starts to expose that second fallacy that you will only operate and collaborate in the context of self-interest. And then the third fallacy, which started to become more obvious to us, we were already kind of getting it, was that the large organisation is the only way to make large and complex things happen is... That used to be the case, that large complex organisations, line management and hierarchies were the way to make things happen. And that has a bearing on everything we do and it has a bearing on complex propositions like knowledge transfer and technology transfer. And it's only if you kind of digest that and realise that all of those markets and people aren't always motivated by the economically rational thing for them to do, and that organisations are the only way of getting complex projects done. You can make sense of what happened to this thing, Encarta; it had all of that, it had Microsoft behind it, all the

capital, all the expertise, very well positioned. And if we'd gone back to '96 and said, 'I'll tell you what, what would you bet your money on, this pack or this bunch of kind of weirdo sort of (screenshot of Wikipedia)... And Wikipedia, I don't think you wouldn't have said this was a valid form of putting knowledge together.

Now, Encarta doesn't exist anymore, it's dead. Yet Wikipedia is the largest encyclopaedia, and that's been done entirely on a collaborative intrinsically motivated activity, people not being paid to do this, but they are interested. And that points to this reality. I like to quote from Clay Shirky, which is that people are actually motivated by intrinsic drivers, they are motivated by wanting to be autonomous. Autonomy, that's what makes people happy in their jobs, they want to feel competent and connected. And there's a bit of a conflict almost sometimes between being connected, being autonomous and often we struggled to utilise that in a working environment, because we didn't have the tools to do it before. It's just that we do have the tools to do that now, and it looks like social media tools that we've all been collectively and sharing and talking about today, and then those drives would start to work. So for me, the whole thing really has been about, how do we get the best of both worlds between that institution as an enabler, and when I was talking in the session earlier, about how to create an environment, an eco system in the University, where you pull people in and get them to work on a common problem, but you do in the context of an enabler and sort of network as enabler, don't have to come to work, don't have to sit in your organisation, don't have to be paid by you, and you therefore tap into not just extrinsic goals, getting paid, people getting bonuses, we start to tap into what people enjoy doing, the fact that they want to be autonomous, they want to feel competent, the sort of things that have driven people to build Wikipedia.

So that led to this kind of, I mean, and it seemed a bit crazy at the time, 'What if we could re-engineer the whole knowledge transfer process and take some learning from Wikipedia?' so building a virtual organisation so I don't have to fight for extra resource, I can kind of weather this economic storm, which is probably going to get worse, with the current staff that I've got, if I

can create a milieu of people around me that just want to work with us on and off, when they want to, in an autonomous way, and we can utilise them, the best skill sets that they have, we don't have to pay them when we don't need them around.

What if we could incent them through a combination of different incentives? A little bit of consultancy, a bit of pay, they've got to pay the mortgage, a bit of equity, a bit of upside, we can do that, it's very easy for us; we are creating companies, we can give away slices as a company, which costs nothing but could be very valuable in the future, but also that intrinsic motivation that people would want to be involved in interesting and exciting projects, which is largely what the University pumps out, very interesting and exciting technologies. And then what if we could deal with the fact that there's an army of different people creating a much more complex environment, lots of transaction, we can manage that using social media and that's what we tried to do. And that was kind of the project I was talking about earlier, the social innovation, the social, the Leeds Innovation Network, that's effectively what we've tried to do.

Now I'm conscious that all of this may sound a bit Utopian, this virtual organisation with people working across it and so I thought, with this next set of slides, well, I'll just go back to some very kind of objective facts. If you just bear with me and my dull graphs but if I'm going to throw this level of Utopian thinking at you, I thought I'd better back it up with some return on investment, and how its performed.

So just before I go into this, the sort of three metrics that I judge what we do, which is, can we get through that valley of Death between, you know, all the research funding that exists and commercial investment, that bit where nobody is really interested, can we generate enough proof of concept on it to get an idea and do something of a prototype that someone's interested in? That's one. And can we generate income for the University? And the whole agenda now will be around commercialisation, the universities making more money for themselves - and it's not turnover, that's profit. How can we create more value? So those are the three metrics.

When we started trialing this more open, collaborative online process of doing tech transfer, things started to move in the right direction and none of that, that's the licensing, so that's the money we're getting from royalties, basically renting out our ideas, and if I project that forward it starts to look more impressive. And that's done on very, very prudent projections. If I get more excited and start working some of the projects that we've got, people who don't work from me that are leading projects in this kind of virtual community that we've created, I start to factor in some of that work, it potentially gets much more exciting. Now, I'm cautious, I know there are people from my university here. I'm cautious about how I feed that back into these because I don't want to set expectations *too* high, but these are genuinely, you know, serious upgrade in terms of performance - by the way changing the way we work.

In this graph, the top line, simply a reflection of how the downturn in the market starts to effect our activities under the old model. We still do that and hopefully that will turn round also in due course. But we've been able to buck the trend through, again, this sort of open collaborative process of virtualisation; by creating more companies and likewise with our proof of concept, because what we can do is engage people, I mean, being honest about it, who are much more credible than many of us and my team, including me, would be, when we are pitching for money, because they are not sat at the desk, they are much closer to the technology, much closer to the market we're talking to. That has had a very significant impact on our performance. So my argument, I suppose, is that if we can tap into this intrinsic motivation by allowing people to remain autonomous, they don't have to come and work for you, they can do it in the time they want to, we are probably getting around to it, you've got greater capacity, an army of people working for me on all sorts of promises, I don't have to employ. They've got a greater skills set than I have. I've got, for example, I've got a quite mature ex-venture capitalist who've been working in that sector for many decades, ~~not sure if I can say this, if this goes out...~~ But he's been working for a ~~ridiculously low day rate,~~ but he's interested and he's interested

in the opportunities that we throw out and he wants to keep a hand in, and it leads to new opportunities. So greater skill set, greater connectivity, and all of these ideas, ideas don't have any value until you get some market pull, and again, people working in the tech transfer office, enclosed environment, generally don't have that connectivity into the market and they don't have that pull, enough credibility to the end user.

So that's the touching on this, you know, I showed the Dan Pink book earlier, and this is how Scientific American put it (referring to slide). There's a convincing case that that sort of organisation that wakes up to the importance of intrinsic motivation autonomy, this desire to work in new ways, will still show they will be the ones that take advantage... Social media, talking about it being right at the heart of how we make that happen, and I can see the evidence of that in terms of performance, so it clearly isn't Utopia.

That begs the next important question for me, which is, Jacquie referred to the fact that I sit on the Council of the Association for University Research and Industry Links and the Institute of Knowledge transfer as well. Most of my life I've been trying to, having worked to try and professionalise the profession, kind of lift it up and give it a certain status. That's *not* where it's at, where it's at is, we need more *amateurs*, we need to break down the walls. The reason I use this slide (slide shows boxers in boxing ring) is it's a pro-am boxing match, so one is a professional and one is an amateur, it doesn't matter if you get hit - if you get a right across to the jaw, you don't care if the person is an amateur or a professional. Again, some of the social media, social tools that we're talking about, allow us to engage with many different people who are amateurs, who don't regard themselves as technology transfer specialists, but they are amateurs in the best sense of the word, they love what they do and they are not just turning up for a pay cheque.

(Slide of a cartoon about 'irrationality' and working from home). Now it's not all been sweetness and light, and we have had our problems, I think Jacquie wants to lay off the computing services people...' Humorous. But I'm not

going to do that! (Laughter). Often they've been a big pain in the arse, as far as I'm concerned. But... (Laughter). It has slowed us down, but things will change, and that's a reflection of the fact that there's a good side of irrationality, we're not all motivated by a quick buck, there's a downside of irrationality, you don't always recognise a good idea when we see it, but I try not to be too negative.

It is long haul, it takes a long time. We've seen some very quick wins by introducing some new principles of processes at Leeds, and that draws on all sorts of bodies of innovations thinking and psychology and all sorts of things but it will only scale up and it will only work when we embed it fully in our online systems because otherwise it's just too complicated, and it will take a while I think, for people to sort of accept that and get with it.

And I think the lesson in this is, it works, it can work quite quickly, but if you want to reap benefits from this, you've got to be in it for the long term. Otherwise I think you will hit a wall, we'll be able to recruit an army of people so big and we'll get a certain uplifting arc of activity and we'll be able to engage them in a mixed model, you know, extrinsic, intrinsic reward, but we'll quickly hit a wall. It's only if you take that consistently online using the tools we've been talking about, that we'll get any real benefit.

Just back to Brian (Clough), and I think this is true, it's players that lose the game, not tactics, and sometimes we forget that it's the motivation of the individual not the tactics, not the organisation, which is quite critical. And I think if you can tap into that intrinsic motivation through using some of these approaches, I think you can get the right players, we can tap into a broader skills set of people that wouldn't normally come and work for us, we can engage, we can get them more motivated and more engaged.

So that's kind of lessons learned from the project I've spoken about and the way we started off with this. That's the most interesting lesson learned for me, the notion about, how do you allow people to have autonomy and utilise it in methods of motivation.

(Applause).

