Greg Satell

Finding the right problems to solve

Speakers:

Nick Skillicorn – Innovation and Creativity Expert and Host of Innovation & Creativity Summit

Greg Satell

Expert Interview transcript:

Nick Skillicorn: Hello everyone and welcome to the interview session with one of our experts at the innovation and creativity summit 2017. Today we are very happy to have Greg Satell with us who is one of the chief innovation experts in the field of understanding problems. He is the author of Mapping Innovation and he runs an agency called Digital Tonto. Hello Greg.

Greg Satell: Hi Nick thanks for having me.

Nick Skillicorn: No problem. Great to have you here. So Greg why don't you tell us about some of the things that you really on the topic innovation and what does your clients usually bring you in for?

George Satell: I think that usually the biggest problems that companies run into is that they have this kind of idealized view of innovation that It's this moment of epiphany or Eureka moment and that what you need to do If you want to innovate, you need to completely change your company structure and hire different kinds people who have purple hair and piercings or something. But most of the companies that are really innovative, they don't look at that at all. I mean if that's your company culture that you want to allow the very creative looking people running around, that's great but if it's not going and trying to change their culture into something that it isn't, isn't really going to help you.

I think that one of the biggest barriers to innovation is that there are so many myths, these sort of idealized stories about innovation for instance we hear a lot one of the most popular stories of innovation is the one about Alexander Fleming who came into his lab one day in 1928 and found that his Petri dishes had been contaminated by moulds and he decided to study the mould and that's how he discovered penicillin. That's the kind of thing that makes a great story, that somebody can come in, can notice something, deliver an insight and turn it into an impact. But if you look at what actually happened with penicillin, you quickly find out that it didn't become commercially available until 1945.

Nick Skillicorn: That's a long wait.

George Satell: In 1945 that's not in some sort of an instant thing but if you look a little bit closer you find that actually when he published his results, they sat a scientific journal for 10 years before anybody knows and the reason why nobody noticed is because what he discovered couldn't have cure anybody. What he discovered was a mould that secrets a juice that can kill a bacteria in a Petri

dish. That wouldn't be any help at all curing a person. You can imagine going to a Doctor's office and saying you feel a little bit under the weather and say well I have been mold in my bathroom for a couple of weeks when I squeeze some juice out of it and inject you with it. Besides that there were some very very other serious problems with the penicillin itself. You couldn't store it; you couldn't make it in any kind of quantity to cure even lab mice so that's why very few people took notice when he published his paper about penicillin.

About ten years later another team entirely saw the potentials in it and they had a much wider diversity of skills. The two men who led the team, one was Howard Florey who was a pathologist like Fleming was but the other one was Ernst Chain who was a biochemist. The exact type of guy you would need to figure out how to transfer the penicillin into a storable powder and how to make it in quantity but even then, that only got penicillin to the point where they actually could test it on mice.

So after those tests were successful, they sort of ran into a wall and they needed to expand the effort further, they travelled to the US where other labs helped them identified a new strain of penicillin that was more potent, a new fermentation medium and process and then finally the US government for the war effort basically ordered about two dozen pharmaceutical firms to produce penicillin. So what was initially a story about one guy and one insight actually encompassed hundreds or even thousands of people to solve all the problems associated with penicillin and it still took twenty years.

Nick Skillicorn: Yes. I think that something that so many people when they look at businesses, they ignore the fact that there are very very few of this true lone wolf stories where one person actually was the catalyst for absolutely everything happening and being an absolute overnight sensation. In general there might be one founder or one person who takes the end credit for something becoming so successful but there is so much time in between it and so many people involved that a lot of people ignore that fact and they just like the easy answer. One guy in a garage coming up with an idea and instantly being successful.

Greg Satell: I haven't found one example of one guy in a garage making anything successful. I mean you see probably the best example of that is someone like Steve jobs really pushed forward the Macintosh and that picture of him in 1984 is still iconic and almost personifies innovation. But the innovation that make the Macintosh such a breakthrough product were first presented in 1968 by Douglas Englebart and they were worked on at Xerox PARC for almost two decades and what also what most people don't remember is when the first Macintosh came out, it wasn't very useful. It was great for college students like me, I had one it was great for writing papers but when executives looked at it, they said okay that's a machine that does secretarial work and it took more than a decade, it took really into the late 90's when you had enough applications and enough adoption that computers actually started making an impact on productivity statistics. So I think that's the main conception, innovation is something that happens very fast or that innovation is about adapting once. Once you begin adapting almost by definition you are already far behind. When you find yourself finding the need to adapt, you are already loosing. So it is much more important to prepare than adapt.

Nick Skillicorn: what do you mean by preparing?

Greg Satell: Well if you look at the history of innovations, it usually takes about thirty years to go from an initial discovery to a significant market impact. That means that the next big thing is usually about twenty nine years old. By the time something gets to any kind of commercial viability, it's been around for a long time. If you look at Gartner's hype cycle, you will see things on the way left that aren't even in the public eye that are going to have a strong market impact five to ten years from now and you can rattle off half a dozen of them. Neuromorphic chips, quantum computing, 4D printing, the stuff that is not on most people's horizon but it's

Nick Skillicorn: It sounds like sci-fi right now

Greg Satell: yes in a sense it does but if you take something like quantum computing, we don't really know what the full impact is going to be but we know it's going to start to have an impact probably between five and ten years. We know that one of those impacts is going to be, that it's going to render all current encryption protocols basically obsolete. So if your business is involved in any transactions like selling products to customers or paying suppliers, that's something that's really going to affect your business.

So what do you do, well if you wait five years and say okay we are going to adapt and we are going to move fast, you are really not doing your business a service. I mean this is highly visible right now, the government agencies in the US and around the world are already moving to quantum safe encryption. You can make your data quantum's safe takes a couple of months and $100,000 or something like that and those prices are going to come down very quickly probably in the next five years. So this is something that you should really probably start thinking about now, about what your vulnerability is, what kind of market opportunities they might present and start thinking about it.

Most companies need to prepare but they don't because they are focused on the everyday business, taking care of customers, paying bills, running operations but the companies that I studied in my book Mapping Innovation, what they did is they had, every single one of them, the one thing that they had in common was that they had a systematic way of going out and identifying new problems to solve and these took any number of forms. Experian for example set up a data labs unit which would just go to clients and ask them what problems they are having, what problems they can solve and then they would spend about ninety days and come back with a prototype and if the client thought that it was something valuable, they would co create the solution around it where Experian would keep the IP and then in many case would be able to launch an entirely new business off that solution. IBM on the other hand, they talk to clients as well but they are really looking for problems that will take them years or even decades to solve. Google everybody is familiar with the twenty percent time, with twenty percent time the function and services at Google is really a human powered search engine for new problems. So there is all different sorts of ways that they do it but I think that the companies or the organizations that are continually successful at innovation isn't because they used one particular solution or another but because they are constantly finding good problems.

Nick Skillicorn: I think that really feeds into something that your discussion that ticked off at the back of my brain. That is if you are saying that most innovations take about thirty years to become viable, then how do companies use that in the way that they approach problems because if you are going to start right from the beginning and not see any benefit for thirty years and that's quite a

difficult sell to management. Is there a different way that they can approach this sort of problem finding and solution finding?

Greg Satell: well it's thirty years from the initial discovery which means that there was a lot of work done twenty-nine years ago or twenty years ago that's becoming very immediate now. Very few companies invest in basic research, should they and very few companies have that kind of decade's long timeline and most of that kind of research is done in the public sector anyways. But that information is generally highly accessible. When you think about all the enormous amount of research that are being done at universities and government labs around the world, most of them is publish openly online and they have conferences about it, people know about it. So it's not that you are from a private company's point of view the point it's not that you should start now and you have something in twenty years. The point is that thousands of people have been working on things for decade that you can make a business out of and that's what I think really flips the conventional idea about innovation on the head. You don't need to be a genius coming up with path breaking solutions what you need to do is find a good problem.

Nick Skillicorn: How do companies do that, how do they go out and become better at finding good problems.

Greg Satell: the main thing is you have to be looking for them and it really is just that simple. It makes it very hard to innovate when you are a hundred percent focused on your daily business. I know when I was a CEO running business that's what I was focused on but you also need a systematic way of saying "Hey what are new problems we can tackle". Usually those problems are indentified by talking to customers. Start ups generally see a gap in the market, some companies use market research. There are a myriad number of ways to go out and identify new products but you need to be focused on doing it. From there once you are able to identify a problem that needs solving whether this is something that you just see in your own business or that your customers are complaining about or whether you just see it in your own life, the next step is to classify that problem and identify a strategy that is going to solve it. That's what my book is really focused on; it's about mapping the innovation space in order to map the right strategies to specific problems.

Nick Skillicorn: That's perfect and what's the name of the book again

Greg Satell: Mapping Innovation

Nick Skillicorn: Absolutely. Greg that's all we have got time for in today's session, if our viewers see a link on the screen right now, that's going to take you to Greg's web page where you are going to find more about digital concepts, more about insights from Greg and the book which is currently out and all the other information you could want finding out how to best approach problems in your organization, Greg it's been a pleasure having you

Greg Satell: Thank you so much Nick