

Matthew E. May

The 7 fatal thinking flaws that prevent great ideas

Speakers:

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Expert Interview transcript:

Nick Skillicorn: Hello, everyone and welcome to another special expert interview at the Innovation & Creativity Summit 2017. I'm very happy to have Matthew E. May with me today. Matthew is a 5-time author including some bestselling books. And most recently, the book, *Winning the Brain Game*, which is all about uncovering the fatal flaws in the way that people think and how to overcome them.

Matthew, it's lovely having you.

Matthew E. May: Thank you. It should be fun.

Nick Skillicorn: So for people unaware of you or what work you've done, can you give us a brief insight into how you got into talking about innovation and creativity?

Matthew E. May: Absolutely. I guess everything sort of began many years ago, the turn of the last century actually. And I got a phone call from a company called Toyota. And they were looking for a facilitator to help them through a 3-day creative thinking strategy session around something called – a concept called University of Toyota.

And I luckily got that engagement and it turned into an 8-year sort of capped it advisorship if you will. They bought all my time for 8 years.

And the ability to immerse oneself in organization like that that produces over one million ideas a year, and those are actual experiments, was life-changing, career-changing, and it allowed me to write a book back in 2006 called *The Elegant Solution: Toyota's Formula for Mastering Innovation*.

And that launched me into an entirely different and new and unique and exciting career path that I just kept digging deeper and deeper into the notion of innovation, what it means, what gets in the way of it, and that brings me to what we're going to talk about today I think.

Nick Skillicorn: And a lot of people know of Toyota as being one of the benchmarks of enabling people to actually try out things because I'm not sure exactly what it's called but

they've got this famous thing on the production line that if you see a problem, you can actually stop the whole production line. Is that actually true or is that a myth?

Matthew E. May: It's part true and part myth. What you're referring to is something called an Andon, A-N-D-O-N. And in the old days, in the older factories, there was an actual cork running around the back much like a bus cork. Like if you want to get off on a bus, you pull a cork just above. And much like that process which is exactly where they learned it. The bus doesn't immediately. It stops at the next safest place to get over if it's an emergency or their next scheduled stop. That's basically how it works.

Theoretically, everyone working on the line has the ability to stop production yet, it rarely stops. What they do – what's more accurate to say, they have the ability to call for help and that call for help via this Andon which is now – it's a flat panel screen. You touch it. It goes to your team leader's smartphone or whatever device they have and they come and they help you solve the problem before the next pitch, as it's called. And only then would production stop if it couldn't be solved.

So that's what you're referring to. So the call for help goes out thousands of times a shift but production is rarely halt. So it's a mix of myth and fact.

Nick Skillicorn: Perfect. It's always nice to get the truth behind this often quoted but rarely verified fact. But what we're going to be talking about today is it's sort of the follow-up from that. It's about how people generate ideas and also the sort of things that prevent ideas from actually seeing the light of day. And that's the basis of your new book, isn't it?

Matthew E. May: It is. And it's funny. It actually started during the later stages of my tenure at University of Toyota. And I could tell you a funny story of how this whole thing started involving a non-Toyota group, if you're interested.

Nick Skillicorn: Absolutely.

Matthew E. May: OK. The University of Toyota had something called Lean thinking. You may have heard of Lean Startup, the principles of which are based on Toyota's sort of scientific problem-solving and quick test innovation process.

We had begun teaching Lean thinking to outside organizations, one of which was Los Angeles Police Department. I'm located outside of Los Angeles. And I got taps, lucky me, to facilitate a 2-day creative strategy session with the LA Bomb Squad and this was in 2005. So it's four years post the 9/11. And the world has changed. Their old standard of how they responded to bomb threats was basically archaic and they were looking for a new standard.

And in order to get 14 bomb squad members, all of which were fully armed, at a corporate headquarters which is completely out of their element. And thinking creatively, I gave them a sort of an ice breaker, creative ice breaker. And it was nothing as challenging or daunting or

anywhere near as life-threatening as a bomb scare or a bomb threat. Yet, they couldn't solve it.

And I needed to do that to warm up the room because they were there slightly out of protest. They didn't understand why a civilian was taking them through a session like this. They didn't understand what it was they were being asked to do. So I needed to sort of thaw the room a bit. I didn't quite break the ice but what it did do was alert me to something that became a series of patterns over the course of the following ten years.

And when I gave this thought challenge to the bomb experts, they did a number of things inside of 10 minutes. One thing they did was to leap to solutions right away, which is sort of a knee-jerk brainstorming that we're all very familiar with. Many of them could not get out of their own way in terms of thinking about the problem differently. They were mired in a gravitational pull with their own experience. They were subject matter experts and they really couldn't get out of their own thinking ruts if you will.

Many of them decided that the goals that I had set for how to solve the problem and what must be achieved with the solution weren't real world enough or they weren't realistic enough and so they changed them. And there were a series of things that they did.

And that very story, that experience alerted me that well gosh, if they do it, maybe other people do it. And over the course of the following years, I kept giving these thought challenges to people and watching what they did when they went about solving the problems.

And lo and behold, after about a decade, I've got rings of research depth, field experience, deep field experience that says, "Here are the 7 things that people tend to do, they don't do all of them, but they do a fair amount of them every time they're faced with a problem." And that's the genesis of these 7 fatal thinking flaws. They're all from real world experience and watching how people solve problems.

Nick Skillicorn: And what exactly are those 7 fatal flaws?

Matthew E. May: The first one is I have sort of alluded to, which is simply leaping. Every time we are given a problem to solve, the most natural, intuitive thing to do is to offer up a solution, an idea. And there's a reason for that. And the reason is, most of the problems that we solve every day don't require deeper thinking. What's traffic like? I don't need to understand why there's traffic on the freeway. I just need to work around it to get to work.

I don't need to think through why I'm ordering a tall grande or venti at Starbucks. I just need to get the coffee and get out.

So when it comes to complex problems, we tend to use the same sort of intuitive leap to approach. So that's fatal flaw number one. It is by far in a way the most prevalent. And I

encourage you to catch yourself doing that. If someone ask you a question, teases up a challenge for you, at first, it's very difficult not to offer up a solution right away. Very rarely do we say, "Let me think about that." Or ask a question in return.

The second one is what I call fixation, which is a shortened, abbreviated my term, umbrella term, for what psychologists call functional fixedness, which is our biases, our mindsets, our assumptions that make it difficult for us to think differently.

The third is overthinking. And we tend to do that a lot as well especially if we have an MBA in our background. We love to overanalyse things. We love to paralyze ourselves with analysis. And lo and behold, we end up creating problems that weren't even there. So that's the third one.

Those three, I bucket into what I'll call misleading kinds of flaws. The second bucket consists of two fatal flaws which I brand mediocrity. One is about satisficing and that's fairly – it's a fairly well-known term right now, not my term. It's 55 years old. It comes from Herbert Simon, a Noble-laureate. It's his word for how we basically make decisions, which is good enough. It combines satisfy with suffice.

So get me to the 80% mark and then I'll just sell the heck out of my solution. That's satisficing. And there's a time and a place for that. A good place for it is when you are concepting or prototyping or coming up with just low resolution mock-ups of your concept. It's not a good idea when you're out there with the final product or service because no one likes an 80% solution.

And the other one is a close cousin of that called downgrading which is when we formally back off a goal simply so that we can declare a victory. We set our sights at the beginning of a project. It's going to be 80% improvement in this or it's going to be 90% conversion of users on this. And as we get into the project, our eyes were bigger than our tummies and instead of moving past the stall point where we don't really see the clear end anymore, we back off the goal in order that we can say, "Hey, we won."

Our sights weren't set realistically to begin with. Our sights are more realistic at the 60% mark. So it's very close to satisficing except this is a formal surrender in order to declare a victory. So those are sort of mediocrity kinds of flaws.

And the final two, I'll call mindless. There's a lot of talk right now about being mindful. But the opposite of mindful which is separate from the actual tool of meditation, mindful, the opposite is mindless. And there are two basic ways in which mindlessness manifests itself.

The first way is something we call Not Invented Here or Not Invented Here syndrome. It's actually a widely documented and written about topic. This is basically, if I didn't or we didn't come up with the idea, it's no good. So if we didn't invent it here, it can't possibly be a great solution. And what we end up doing there is reinventing the wheel.

And you can see this every day. Go to the elevator in the lobby of the hotel that you're staying at and there's someone there. The light is clearly lit and what do you do? The same thing at a crossing, right? There's someone there. There's a push to walk button. You know it's already been pushed but what do you do? You push it again.

Nick Skillicorn: Yeah.

Matthew E. May: Because we don't trust other people's solutions. It's just a natural flaw that we have. We have to do it ourselves. And what happens is we reject ideas of others out of hand. It's sort of our knee-jerk reaction.

And then the most deadly sin or fatal flaw, the deadliest of the fatal flaws I'll say is when we kill our own ideas, self-censorship if you will. This is when you have an idea and because of that voice of judgment that has been sort of ingrained in your brain from school through work, they begin criticising your own idea before it has ever been born and you end up squelching your own creativity. And that is sort of the epitome I think of mindlessness because you're letting the past rule the present and therefore the future.

Those are the seven.

Nick Skillicorn: I mean it's fascinating that you talk about that because throughout the summit, I'm talking to experts from all different types of fields and some people are looking at neuroscience about how the brain is trying to efficiently use its resources. And one of the things that has come out of that which relates back to what you just talked about, the brain is very, very good at seeing a correct answer if it's seeing something similar previously. It's just much more energy-efficient to do that than to take in new information, process it all over again, and essentially waste energy.

And so a lot of people get so used to coming up with the same solution over and over and over again that it feels very uncomfortable to try and think of a new solution.

Matthew E. May: And that is fixation at its finest. That's exactly what you're talking about. And our brain is – and they are absolutely right, these experts obviously. I got to work with a fair number of neuropsychiatrists and neuroscientists in writing *Winning the Brain Game*, and absolutely, it is a very efficient muscle, the brain, and it's like a VCR. It takes in information all day long and it makes patterns almost instantaneously.

One of my favorite, favorite exercises of all time, is by a former CIA analyst, and I'll give it to you right now and maybe the audience can have fun with it as well. I'm going to give you a few data points and sort of pay attention to when the solution pops into your brain. I'm talking about an individual and this particular individual is a young chief executive, one of the youngest in his nation's history and he's being sworn into office on a cold, cloudy day in January. He was raised as a Catholic. He rose to his level of leadership because of his

charisma. He will go on to solve a – trace and solve a military crisis facing his nation and his name will become legendary. Who do you think I'm talking about?

Nick Skillicorn: So I don't have the benefit of knowing all the US history but let's have a think about this. So you've given some pertinent information about him being young, him being Catholic, and him changing the face of the nation. And I'm now trying to think whether or not it's someone in business or someone in politics or someone in the Armed Forces. So that I'm not taking up 10 minutes of our own time, let's say Abraham Lincoln.

Matthew E. May: The answer that almost everyone gets to as soon as they hear Catholic and charisma is JFK.

Nick Skillicorn: All right.

Matthew E. May: And interestingly enough, and this is – you've just actually proven the flipside of this. So, once they hear those data points, they leap to JFK. And when I do this with audiences, I ask them to raise their hand when they know who it is I'm talking about. Somewhere between, yeah, Catholic and charisma, the hands go up, because that's how we learn about it. If you're in Kennedy's rise to fame, that's how we learn about it here in the US.

Interestingly enough though, there is another answer, possible answer. And when I give it to audiences outside of the United States, they do what you've just done which is struggle and you are actually searching your brain for something that meets all of that data that I gave you or they immediately leap to Adolf Hitler, which also meets those criteria.

So it's very interesting. But that is sort of fixation at its finest and it gets to what you were talking about, your brain searches in the most efficient way for a ready-made answer because it really doesn't want to work hard. If you've read *Thinking, Fast and Slow* by Mr. Kahneman, you'll know that we have two different circuits, fast and slow. And the slow is the better one but it's lazy and the fast one is the one that's sort of predominates but it gets us in trouble.

Nick Skillicorn: So the follow-up then is we've got these flaws, what can we do about it? How do you actually address these flaws?

Matthew E. May: There are a number of ways. One way is to have a consistent process that's sort of neutralizes or de-clude all of them. And my preferred process to that is sort of the management psych guys around innovative thinking right now, design thinking.

The other is to have specific fixes for each of these. And I have over the course of those ten years, found certain things that work and things that don't work. And so, I offer up sort of a battle-tested, curated set of fixes. And each one of the flaws has one or two fixes that I prefer. So we could talk about, I don't know how much time you have that we could talk about one or two but ...

Nick Skillicorn: Let's focus maybe on the mediocrity ones.

Matthew E. May: OK. That would be satisficing and Not Invented Here. So satisficing, just to refresh, is when we sort of immediately leap to a solution that's apparent but it doesn't require a lot of deeper thinking. It's probably as you say, something that has already been out there in some way, form, or fashion and we begin to implement it.

The other is Not Invented Here. And that's sort of a more formal backing off of a goal. Let's start with that one first. Not Invented Here actually was solved very elegantly and almost finally by an organization by the name of Procter & Gamble. And quick story, quick background, back story on that.

They instituted, it has been probably 17 years now, something called Probably Found Elsewhere. So it's kind of the inverse if you will of Not Invented Here. At the time, A. G. Lafley, who was the CEO of Procter & Gamble was dismayed at the relatively low return on innovation. The innovation pipeline was weaker than he would like it to have been. And he issued as CEO or wanted to do an executive edict, a mandate. And he laid down the law and he said, "From this point forward, 50%, fully 50% of our innovations have to be sourced from the outside."

So, he took the Not Invented Here mentality and flipped it on its head and said, "Probably found elsewhere." Fifty percent. Think about that. Not many organizations can be that open with a flip of a switch. But they ended up doing it. They created a number of open innovation networks.

And one of the stories that comes out of his strategy is they were looking for a way to print on Pringles Potato Chips. Are you familiar with Pringles?

Nick Skillicorn: Oh yeah.

Matthew E. May: Thought too. And it was from a can. And maybe you've actually tasted this particular product that I'm going to describe. But at the time, they were looking to print pop icon images like Bob Marley or Ziggy Marley on a potato chip, and that was an innovation that would have taken a long time to develop and perfect and get to market. They searched their network, that open innovation, Probably Found Elsewhere network.

And lo and behold, they found a little bakery in Italy that had developed a way to print on baked goods. And by partnering with that little bakery, they actually produced the innovation of printed pop icons on potato chips in a fraction of the time and cost that would have require for them to do it on their own.

So it's a quick story on how you can actually change the face of Not Invented Here if it strikes your organization. The real easy way to do it though is not to have an executive edict, it's to have hackathons. Open hackathons where they're open to the public or whether they're

internal hackathons, they're a great way to infuse your thinking with other people's thinking and get rid of that Not Invented Here mentality.

Two quick fixes. And I facilitated a number of hackathons. I'm sure you've been to a number of hackathons yourself and you can probably attest to the fact that innovation and creativity tend to flow freely and it's not necessarily an environment where rejection is the theme of the day. It's acceptance and ground-breaking thinking that really rules that experience.

Satisficing is a little tougher actually. But the fix is called synthesizing, which is matching up the best components of existing solutions. So when we see an existing solution, we want to glam on to it and put it in place and it may not fit.

Synthesizing is when you take a look at less than satisfactorily, less than perfect, less than ideal, less than elegant solutions, the mediocre, so they're satisficing solutions. And you cherry pick the best parts of those, match them up, and blend them into a solution that you can go forward with a test. So the quick fix is called synthesizing.

And the way that I suggest people get to know how to synthesize is going to sound strange. But it's to enter cartoon caption contests.

Nick Skillicorn: OK.

Matthew E. May: Have you heard of it?

Nick Skillicorn: Not really.

Matthew E. May: I don't know if you get The New Yorker or read The New Yorker, but at the back of every issue of The New Yorker magazine is a cartoon caption contest. And you're offered a panel in which there are some incongruities. And the goal is to come up with one line that is a) funny, and b) reconciles all the things that out of whack. And it requires you to synthesize.

And I offered that up as a solution as a way to practice synthesizing and I am fairly proud of the fact that I did win the contest. It's probably my most creative contest. Harvard Business Review also has a monthly strategic humor cartoon caption contest. I haven't won that one yet. But it's on the to-do list.

But that requires you to take different parts, blend them together in a way that makes sense and the user, in this case, a reader, chuckles and gets it. So, those are two.

Nick Skillicorn: That's fascinating insights. And I think it's so important for people to become more aware of what's actually happening in their own mind which might be preventing them from getting the most value out of their creativity and innovation and the creativity of the rest of their organization because fundamentally, sometimes the most conservative people in

an organization are the ones who are most risk-averse because they have the most to lose at the most senior level.

Matthew E. May: And it's interesting. I love to, in organizations that I'm fortunate enough to work with, my favorite times aren't necessarily with the top levels of the organization, the executive inner section if you will, because those are the very individuals that are most invested in the way things are right now and have a lot to lose.

My favorite times are with what I call a lunatic fringe. And those might be the newly hired, the ones that haven't been indoctrinated into the box, the box being the system, the way that you do things around here, and they haven't absorbed and hadn't embedded in their brains the norms and the customs and the cultures and the rules and the policies yet.

And so, when you come into a new organization, you're naturally asking the very question that leads to creativity which begins with the word "why". Why do we do it that way? Why can't we do it this other way? What if or how may we think about that differently? So that lunatic fringe, maybe they're the youngest or they're the newest hires of the organization. They're by far in a way the funniest to work with.

Nick Skillicorn: Yeah. And quite often, you see the people come in and they want to know why, why, why. And then they get squashed by the people whose answers is because, because.

Matthew E. May: And because we've done it that way.

Nick Skillicorn: Yeah.

Matthew E. May: The box has done it that way. And yeah, it's prevalent. It's human nature. But like anything else, there are fixes for all those kinds of things. I know we're probably running out of time. So we are going to do one more thing I think.

Nick Skillicorn: Yeah. So let's – as you were saying, we're coming up to the end of the interview, what I like to ask all the experts is if you've got one tip or one piece of actionable insight that people watching and listening can try out to actually overcome these thinking flaws, what would you recommend that they try out?

Matthew E. May: I'm going to pass on a tip because I asked that very question of one of the experts that I tapped for what I believe to be the most fatal of the 7 fatal thinking flaws, which is self-censorship, because it's truly a mindless act.

So I tapped the author of a book called *Mindfulness*, it's 25-year-old book, Ellen Langer, and I called her up and I talked to her about being more mindful not in a meditative kind of way because her brand of mindfulness is around active thinking. And I asked her the very question

that you asked me, how can I be less mindless or more mindful in a way that doesn't involve meditation? Nothing wrong with meditation. I can't do it.

And she said very simply, "Here is a technique that anyone can use. Whenever you are facing something that is causing you stress, an event that you believe is going to happen that is going to be bad in the future for you."

Because understand that right then and there, you are mindless because you've done a couple of things. You've made two assumption and you're probably not even aware of them. First, let's say that you're facing an organization change or a job shift or a new boss. Something is going to change in the future and it's causing you anxiety, stress. You've done two things. You've assumed number one, that this thing is actually going to happen and number two, when it does happen, it's not going to be good.

And she said, "The simple technique and the takeaway that everyone can use to be more mindful is to ask yourself a couple of things in a couple of different steps. The first thing is give yourself three to five reasons why this thing that you're going to – that you believe is going to happen might not happen." And you can come up with those because it's the future and we're horrible at predicting the future. Witness our recent here in the United State presidential election. We're really bad at predicting the future in anything.

So that's the first step. Notice that your stress level now has decreased a bit because you've said to yourself, "Well, at first I thought there was this thing that's going to happen for sure. Well, it may not happen for the following reasons." Your stress level reduces and now, you're in the present. You're not in the past and you're not in the future. You're sort of in the moment.

The second thing is, she said, "Now, give yourself two to three good things that might happen even if this event that you are so sure is going to happen actually does happen that you think is going to be bad." So what are the two or three good things that could happen out of this bad event if it does happen?

Now, you've gone from "here's this thing that's going to happen, and when it happens it's horrible" to "here is thing that may or may not happen but even it does happen, there are some good that's going to come out of it."

Right then and there, you have moved from being mindless to mindful, and I do it now as habit because we are so quick to leap to the doom and gloom thinking and censor our own creativity and innovative thoughts. This is a technique that I offer to anyone and it really truly does work.

Nick Skillicorn: Matthew, it has been fascinating speaking with you. I know that you've got your book out there. But if people want to find out more about you and the work that you do and how to get in contact with you, where should they go?

Matthew E. May: The easiest thing is simply to go to my website, MatthewEMay.com.

Nick Skillicorn: Perfect. It has been wonderful speaking with you and I look forward to speaking again with you soon.

Matthew E. May: Yeah. Thank you so much.