



**About the Author**

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## Conference Report

Unconventional Strategy: Bold Approaches for Future Success

Featuring Tim Harford and Freek Vermeulen

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### Tim Harford

How can you nurture innovation and encourage ideas to happen within the workplace and translate this into organisational behaviours? Tim Harford reveals.

“We live in a complex world and we’re all tasked with solving complicated problems. So how do you go about solving fantastically complex problems?” asks Harford. “Everyone can have ideas, even middle managers; some small, some big; some won’t work, some will. There’s a lot more luck and blind experimentation than we care to admit. You only have to look at the likes of Bill Gates and Steve Jobs.

“Organisations constantly undergo a process of evolution. Bad ideas get shut down by managers or consumers and good ideas get copied and improved upon,” he continues.

Harford introduces the theory of the ‘god complex’ where people including business leaders have an overwhelmingly infallible belief that they’re right and have all the answers, when they never do. When it comes to complex problem solving, he advises that you need to introduce a system of trial and error within your organisation.

He illustrates this case in point by telling the story of Archie Cochrane, a second-world-war prisoner-of-war and doctor, who noticed that in the prison camp, many prisoners-of-war were suffering from a serious illness, including himself. So he smuggled in Vitamin C and Marmite (a source of vitamin B12) on the black market and split the men into two groups – treating one group with Vitamin C and one with Marmite. He kept a diary and it soon became apparent that those treated with Marmite were cured of the illness. He then used this evidence to convince the German guards to allow the prisoners to have access to vitamin B12. Through a process of trial and error, he could prove conclusive results.

### **How does this apply to organisational behaviour?**

Every day, people at the coalface in organisations have ideas or new solutions to problems but are either too afraid of speaking out for fear of retribution, they'll get laughed at, ignored or even worse, it will lead to career suicide. Harford warns: "Business leaders think they know all the answers, and this is the danger."

Throughout history, there are numerous examples of people who have dared to challenge their leaders, the status quo, come up with alternative solutions or taken risks but then get dismissed or labelled as crazy, trouble makers or dissenters.

### **Experimentation & stubborn genius**

One of the key messages throughout Harford's presentation is that we all need to be more open to encouraging experimentation as well as recognising and rewarding stubborn geniuses (those people who pursue their ideas and turn them into reality, regardless of the barriers they face from everyone else). Harford raises the question: "Why do we not embrace these creative geniuses? Why do they need to be stubborn in order to prove everyone else wrong?"

### **A crazy idea – the story of the Spitfire**

Harford recounts a story when the British Air Ministry invited aircraft manufacturers to come up with a spec for a single seat fighter aircraft to be used for the Second World War and Winston Churchill condemned the proposal. Everyone at the time thought it was a crazy idea.

The first prototype Spitfire which had been designed by Reginald Joseph Mitchell, flew for the first time on 5 March 1936, and became, arguably, the most important plane to help win the Second World War. His earlier proposals had been rejected but in the early days of raw experimentation, his ideas weren't shut down. His superior gave him the space to keep on experimenting and taking risks. He had someone believe in his talent against all odds.

"This wasn't plan A, B, nor C, this wasn't even plan F. In those days it cost £10,000 to build the prototype for the Spitfire – the price of a house. When you think of the return on investment, this invention helped us to win the war," states Harford.

### **Risk management – challenging the status quo**

Harford takes a look at Donald Rumsfeld when he led the US army in Iraq in 2005. He says: "He sent professional men and women to the front line. Regardless of debating over the rights and wrongs of the war, the captains and generals had to figure out how to deliver his strategy to get the job done. However it soon became apparent Rumsfeld strategy was failing his people on the front line. When Rumsfeld started receiving feedback from different sources that his policy wasn't working, he consistently side-lined and isolated them. He even forbade anyone to use the term 'insurgents' or 'insurgency' to describe what was happening on the ground in Iraq because he didn't want to listen and acknowledge what was going on."

His complete refusal to accept alternative points of view demonstrated he was quite pathological which had catastrophic consequences.

Harford explains that next came Colonel H.R McMaster, who was sent to Tal Afar, a region which had become a mecca for terrorists, and helped to turn the war around. Under the radar of Rumsfeld, he informed his troops

that the strategy from the top was totally wrong and that they were going to do things differently from now on. McMaster managed to gain the confidence and trust of the local population. His pioneering tactics led to the US army's first success in overcoming the Iraqi insurgency.

Soon after his arrival, McMaster's ideas started to spread through the troops. Word got out that his tactics were working well. His ideas spread to commander David Petraeus, who then appointed McMaster as one of his senior elite advisors. McMaster collaborated remotely and was documenting the whole counter-insurgency tactics so that everyone could learn from it and share ideas. In 2008 it was reported that deaths had slowed down and that there was a breakthrough in the Iraqi war.

So what's the lesson to us in all of this? Harford argues: "When you're trying to solve complex problems, you need to allow people to generate ideas which will cause a certain amount of dissent. It's also recognising that as a leader sometimes it takes tremendous courage and confidence to challenge the status quo or a strategy when you know things are wrong. If H.R McMaster can do it, so can you."

### **Creating a culture of innovation**

What sort of organisational culture do you want to be? Harford believes there's not enough failure or process of trial and error in organisations to find better solutions or to help evolve the business.

There's always going to be failure and success. Yet, there's a tendency to back leaders who express certainty and communicate firmly what needs to be done. He says: "You only have to look at politicians. We get what we deserve. We don't promote the person who says 'we don't know', we promote the person who says 'we know', even though they don't."

He goes on to say that we don't like it when leaders change their minds or direction. However we need to promote radical thinking and test it out. "Take Jamie Oliver for example," says Harford. "Tony Blair had been in charge of schools for 8 years, but it took a celebrity chef to challenge the school dinner system. His message? Not to shove kids school meals full of salt, fat and sugar. When all the schools in Greenwich changed their menus it made a difference. Maths and literacy scores went up. Then David Cameron was falling over himself to congratulate Jamie Oliver. What Jamie Oliver achieved was radical. This is what we are up against."

He urges: "We need leaders and managers to create 'friendly failure environments' where it's safe to change the culture or come up with different solutions." Harford suggests setting up informal meetings to talk about failures or even create a big gathering where failures are shared and lessons can be learnt. One company even runs an annual golden failure award to celebrate failure, so that it's ok to say: 'we tried this but it didn't work, and then share why it didn't work so other people don't make the same mistakes.

### **Minimising risk in organisations – whistle-blowers**

If you take the example of the BP disaster and explore the oil industry where the god complex has been applied to solve technical problems, there can never be enough trial and error testing.

"It turns out that there are interesting parallels between disasters, nuclear accidents and the financial crisis. The systems are so complex that mistakes will happen," says Harford.

He adds: "It's hard to fix before tragedy happens, so what can we learn from these examples. It turns out that whistle-blowing is key. There's almost always someone that can foresee a disaster or tragedy occurring yet whistle-blowers are judged as people with an axe to grind and will be isolated, bullied or ignored. What we need to do is listen and reward whistle-blowers before tragedy strikes."

### **Effective trial and error**

Harford cites a successful implementation of a trial and error system recently set up by the UK government where they've created a special behavioural insight team. This team runs simple randomised trials to make policy more effective.

The government conducted randomised trials to reduce the number of people having to appear in court to pay fines, resulting in bailiff action. The government sent text alerts to the offenders seven days before sending in the bailiffs, with reminders that they hadn't paid their fines. This didn't have much effect, yet when they addressed the person by name in the text message, this had a profound effect. The behavioural insight team has now become popular within government for finding new solutions through the process of trial and error to improve procedures and systems.

### **Exit mechanisms**

"If you look at the Greek crisis, any school kid 20 years ago could have told you that this crisis was inevitable because they hadn't thought what would happen if the Euro failed because it didn't have an exit mechanism. Failure was not an option. So when you don't put exit mechanisms in place, it's inevitable you face disaster," comments Harford.

He goes on to say that a mistake can have serious consequences and that you need to think a lot more about deconstruction and put safety systems in place that have been road-tested.

Harford offers insight into how you should instead run pilots and make your mistakes early. He says: "When you have an idea, be quite explicit ahead of time that you are running a pilot and you are going to see what happens. Normally the instinct is to hide and cover up so transparency is the way forward. Try things out on a small scale."

### **Spotting failures early: "I failed, but I'm not a failure."**

Harford suggests the tradition of try-out, so when you want to take risks and experiment, make your mistakes and fail early in private rather than failing publicly when you're in the spotlight.

He explains that you can road test your ideas in the early stages of experimentation by surrounding yourself with a 'validation squad'. These are people who are not necessarily your friends, but who can give you objective, critical feedback and will tell you the truth.

In the early stages of experimentation, you need to be able to spot the difference between success and failure. Leaders of organisations need to allow their people to make mistakes in the early stages, as this is part of the process of experimentation as well as to the people who are initiating the ideas. If you're the one coming up with the idea, you need to be self-aware of when you're pursuing a mistake because you're in a state of denial, the stakes are high and you're raring to go – this isn't healthy. "It doesn't make you a failure if you've failed in your idea," explains Harford.

### **Innovation in the workplace**

When you have a new idea, make it clear to everyone else that you're experimenting. You may not know the right approach to begin with, but you're figuring out which one will work best. Harford recommends trying an informal, soft launch. See how people respond to it. Use language such as: 'This is an approach we think might work'.

A single failure can be costly, so have a grown up conversation with your team around when's the right time to shut it down or ramp it up. Expect to fail at low cost.

He uses Pixar as an example of a company that has banned people from using the phrase 'it's bad' or 'good', but what will make it better.

He leaves us with this thought: "We're brought up to think if it doesn't need fixing, don't break it. It's not difficult to run a closer innovation machine like Google or Amazon, but it's much harder to test out a really wild idea that will break the business model, what I call 'disruption innovation'. For every 100 failures, there is one success."

## **Freek Vermeulen**

"Not all leaders have the ability to look into the future. It's a bit like driving in heavy fog. You can't see where you're going, but strategy is about making decisions now. If you want to be successful, you need to be able to respond to unexpected accidents that you will not have been able to foresee," states Vermeulen.

Vermeulen talks about how we make strategy, and breaks it down into:

- Strategic challenges
- Strategic solutions

For the first half of his presentation he focuses on strategic challenges:

- The success trap
- Collective inertia
- Escalation of commitment

### **Success trap**

In the 70s and early 80s, two McKinsey consultants had a bright idea. Tom Peters and Robert Waterman decided to interview the best organisations (a total of 43) to see what made them excellent. Their book was published in 1982 and became a bestselling title: "In Search of Excellence." In 1987, only 17 of the original companies featured existed and today, that number only stands at three.

"This is no coincidence," says Vermeulen. "Statistically, it is proven that when business environments change, companies drop off the map, especially the top performers."

He believes that every company over a lifetime needs to make a trade-off between what he calls 'exploration' and 'exploitation'.

### **Exploration definition:**

Innovation, creativity, autonomy, and coming up with new sources of revenue. This tends to be a more flat organisation where there's lots of empowerment, stimulation and allowances for failure.

**Exploitation definition:**

Efficiency, productivity, control and processes. This tends to be a much more hierarchal organisation.

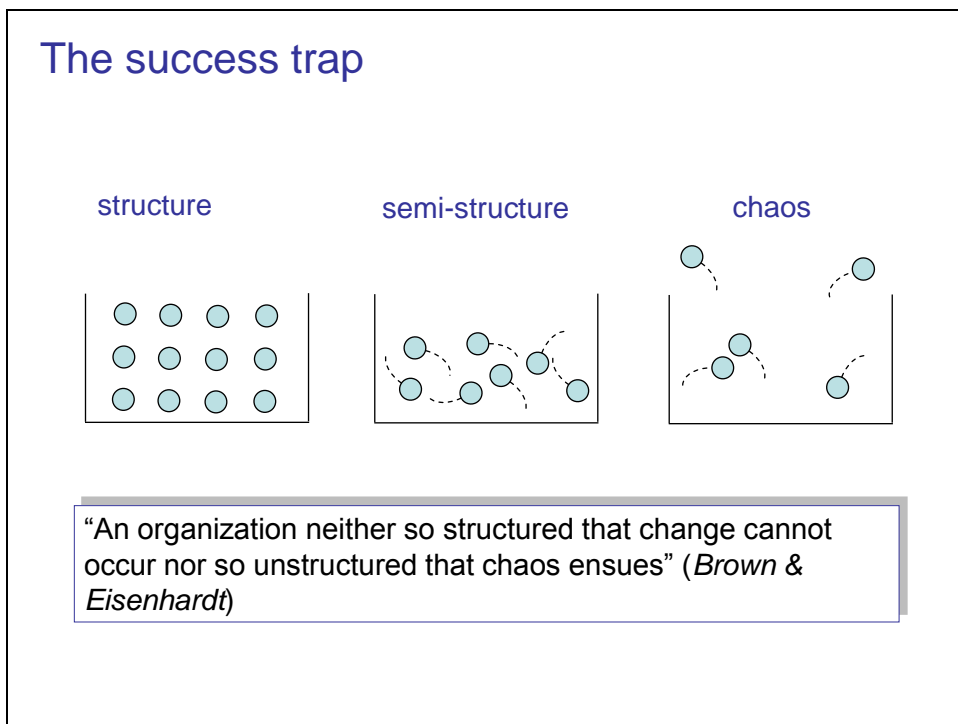
New start-ups and fast-growing companies tend to be in 'exploration' mode but as companies mature, they mostly move into 'exploitation' where they stop innovating. He says that for the success of an organisation you have to achieve both, but it's difficult to do it at the same time.

"Once companies evolve and move into 'exploitation', they will have superior products because they become better and better at delivering those products. These products are being constantly fine-tuned," he says. "Companies get into trouble when the environment changes. When organisations are at the top of their industry, statistically, the top three will always disappear in time."

He argues that this is due to leaders and managers in organisations becoming conditioned by what they see and become fixed in their view. As companies reach maturity and carve a niche out for themselves, leaders will become explicit about what their company is about and the products or services they offer, so they become more rigid in their view.

Managers have mental models of how they view their competition. Leaders and managers can inadvertently dismiss other disruptive competitors, because they only have their eye on existing players who fall into their model of what they view as 'the competition'. Therefore, they completely miss the threat of new, innovative companies who will suddenly come up from nowhere and put them out of business.

He points out a graph with three different sets of dots, each labelled: structure; semi-structure; chaos



- Structure: the dots are fixed and rigid like ice
- Semi-structure: some dots are fixed but there's also fluidity of other dots (this is a molecular make-up similar to the properties of H2O)
- Chaos: all the dots are completely fluid, there are no fixed dots



He uses this analogy to show that the semi-structure illustration is the perfect model in a company. It uses a combination of both exploration (fluidity – the ability to adapt) and rigid dots (some structure and process).

### **Collective inertia**

When you walk into an organisation, and you want to change things or make suggestions to improve a process, have you ever been told: ‘That’s not possible, this is how we do it,’ and when you ask why, you’re told: ‘...because this is the way we do things around here’?

Vermeulen uses the phrase ‘management myths & myopia’ to describe this concept. He cites an experiment that took place by a biologist called Stephenson back in 1967 to explain:

Stephenson placed five monkeys in a cage, and strung a banana in the cage with a water sprinkler system and a ladder underneath. Every time one of the monkeys climbed up to grab the banana, it would set off the sprinkler system and they would all get sprayed with ice cold water. This went on for a while until all the monkeys became frightened of going for the banana because they associated it with getting sprayed on, so they stopped climbing the ladder and reaching for the banana.

Then one of the monkeys was removed and a new monkey was put into the cage who had no experience of being in this cage. Obviously this new monkey wanted to go for the banana, but the other monkeys started beating him up to prevent him from climbing the ladder to get to the banana.

They then took out another monkey from the original pack and replaced it with another new monkey. The same thing happened, but the monkey who wasn’t part of the original pack, started to turn on him too and beat him up with equal vigour and enthusiasm. This pattern was repeated with the same consequences until all five monkeys from the original pack had been removed and gradually replaced with five new monkeys who had never experienced being sprayed with ice cold water from the sprinkler system.

If you apply this analogy to business, if the monkeys were to ask the question: ‘Why do you beat me up?’ The answer would be: ‘This is the way we do things around here’ and this is what Vermeulen typifies the definition of business culture.

### **The management myth**

Vermeulen twice consulted to large newspaper corporations. He asked the question: ‘Why don’t you change the size of the broadsheet and print to a more practical size so it’s easier for people to read on the tube or when they’re travelling?’ The answer was ‘customers won’t want it’.

He says: “No one was able to tell me where the size of the broadsheet newspaper originated from and why they print to that size. It turns out that back in 1855, a tax was issued on the amount of pages you printed so printers made their pages as big and as few as possible so they didn’t get taxed as much on the number of pages they were printing. The law was abolished soon after, but the broadsheet newspaper size remained.”

This is what Vermeulen refers to as the ‘management myth’ when no one can offer you a reason why you do things the way around here, but practices are based on purely inefficient outdated models. He asks: “I bet everyone has practices like this within your organisation? Efficient firms grow and survive; inefficient firms decline and fail.”

He argues that too often people find it difficult to make the connection as to why a certain practice or ritual is carried out. Yet the danger is, practices have become outdated, too harmful or too inefficient because they’ve

been carried out for years and no one stops to question the long-term consequences they are having on the business.

### **Selection bias & innovation**

All IVF clinics are placed in a league table, explains Vermeulen. When the success rates of all clinics started to be measured, some clinics made the decision to only select women who they knew would have a higher success rate, so they would turn away the difficult cases. These clinics had a high success rate in the table to begin with. While other clinics who accepted all women had low success rates.

However, over time, the stats in the league table started to reveal that those clinics who accepted all cases started to climb and overtake those clinics that pre-selected and had a high success rate. The reason? The clinics with more difficult cases learned quickly, they were innovating all the time because they were experimenting with new treatments to find new solutions.

Those clinics who pre-selected their cases thought it was smart to turn away difficult cases but in the long run, they shot themselves in the foot. “Long term consequences are hard to quantify, but in the end the good guys win,” argues Vermeulen.

This is referred to as selection bias. He continues: “We only see selection of outcomes in the short-run not the long-term. We make decisions based on what we see, not what we don't see.”

### **Self-perpetuating risks – escalation of commitment**

In the film industry, film distributors assign resources to those films they predict will become a box office success and hardly any resource to those they don't think will make it. So they feed themselves with this idea of success. When the film becomes a hit they can say: ‘See how clever I am? I just made my own predictions come true. It seems that you were right.’

This can apply to the world of leadership (a bit like the god complex) that Harford refers to. Leaders fiercely defend their own decisions and actions. When a leader's reputation is at stake, they may have a new product launch, all eyes are on them and they've made a commitment to launch on time. When they're just about to go public with it, what are they likely to do when someone points out a fatal flaw or error? Quite often, the leader will not heed the warning and push through with it regardless of the consequences because their own reputation is on the line.

What happens when someone in the team knows there's a problem but is too scared to raise their concerns? Vermeulen makes the point that when one person speaks out, they feel alone in their dissenting voice because a leader doesn't want to hear it, but when two people speak out, a leader is more likely to listen.

“You're acquiring a new company, you make a bid, you see the skeletons but you're so far down that you brush these aside. This is called escalation of commitment,” argues Vermeulen.

“At some point as a leader you have to make a judgement call. For every 10 projects, you will receive negative information. At what point do you need to pull the plug on a big strategy?”

Two things:

Be aware of this escalation of commitment. As a decision maker, can you justify the negative information? Also be cautious of the way you dismiss negative information raised by your team. If they don't think you are going



to listen to them and what they have to say won't be taken seriously, they will stop bringing you information, which would be disastrous.

### **Bottom-up driven internal experimentation**

Vermeulen says: "Successful firms are characterised by maintaining bottom-up driven internal experimentation and selection processes while simultaneously maintaining top driven strategic intent."

He tells a story about an engineer at Intel who knocked on the door of the offices of Andrew Grove, one of the co-founders of Intel. A customer had a processor inside a calculator and the engineer wanted to convince his customer to let him buy the rights to the processor. Andrew Grove responded: "Well how much will it cost," the engineer replied: "I need \$200,000." Grove asked: "Do you have a net value payback calculation of return on investment?" The engineer said no. Grove then said: "Do you at least have a business plan?", the engineer said no, but said: "Our team would love to experiment with the processor." So Andrew Grove offered him the money to buy the rights.

After a while there's another knock on the door. The engineer says: "We've been experimenting with the processor, we'd like to move into personal computer microprocessors." Grove gives the go-ahead and within a year, every single computer manufacturer is buying microprocessors from Intel.

### **Running experiments in the margin**

"With embryonic technologies, people find this stuff cool and will experiment. They'll make it their pet project," says Vermeulen. "When you run experiments, three out of a 100 may work – who cares about the 97 projects that don't work when one experiment has the potential to transform your business? You will have far more failures than successes but the selection processes are just as important as experimentation from the bottom up."

So how do you weed out the bad ideas? Within Intel part of its selection process is if someone comes up with a good idea, they then have to convince other people to get involved in their project. If no one is interested, then the idea goes no further, if it gets buy-in from other people, then it moves further up the selection process. Andrew Grove says: "We let the best ideas win."

- As a company where are you on the exploitation/exploration graph?
- What percentage of revenue comes from products that are past three years old?
- How do you get project approval without a payback time? You can never come up with reliable numbers for a product that doesn't exist yet.

For radical innovations, you can't rely on the numbers in the early stage of research. It's difficult to do market research that doesn't exist. So come up with your own framework of selection processes. Be mindful that you can't kill ideas off too soon.

### **Change for change's sake? Genius or lunacy?**

A company periodically needs to shake itself up, regardless of the competitive landscape. Vermeulen believes you need to break down 'the deadening impact of routine' and the formation of silos to create informal networks and culture.

For example, mix people from different functions so the whole of marketing doesn't sit together on one floor, nor all the engineers. Instead, put the marketeers and engineers who are working on the same product line together. The beauty of it is that after work hours, the marketeers will still go down the pub with the other marketeers and the engineers will still go down the pub to mix with the other engineers, so you get the best of both worlds. Throughout the business this creates an informal network where people from different departments are now co-ordinating and communicating.

Over time, these social networks will disappear as people leave the business and informal networks will start to resemble formal networks again as people get used to working together, so the solution is to reorganise and reshuffle again and force different people to work together. By regularly changing your organisational structure, you get co-ordination and a fair number of collaborations that go on across the business unit. This is what Cisco does on a regular basis so innovation is not stifled.

Restructuring disrupts the increasing inertia in an organisation.

### **Change is a capability**

- Constant small changes allow firms to cope better with unexpected large change
- Change proactively rather than reactively
- Power structures – restructuring breaks up the outdated power structures and bottle necks

### **When and how to change**

"A corporate cholesterol test"

- Do employees interact only with people in their own group?
- Are there strong sub-cultures?
- Are there breakdowns caused by formation of silos?
- Has collaboration decreased?
- Are many people uncomfortable with change?

### **Insights and observations**

- Change is needed even if your environment does not change
- Change is a continuous state for many organisations
- Create a simple structure that you change regularly – regular smaller changes.

### **Strategic intent**

Express your strategy in three points. This provides strategic direction and sets boundaries within the business of what you are about and what you're not about. It also helps people to understand their position within the organisation. An explicit strategy helps employees make decisions. If your strategy is well expressed, well believed in, it can be really inspirational for people – it is a powerful tool.