

4 Taking the plunge into the unknown

- Hang on a minute- let's get this straight. You wanted to know how to innovate. So you should ask yourself the following questions: "Am I prepared to deal with the unexpected?", "Am I ready to choose an unknown path?", "What gives me the courage to take the first step?"

Essay

Go with the flow – the courage to take the plunge

You have probably experienced frustration when plans and ideas, which were enthusiastically developed, are not implemented. Similarly, you may have encountered similar situations in your private life. The holiday you were looking forward to so much is postponed for a reason which hindsight reveals as unimportant. Your presence in the audience at your children's play has to be cancelled at the last moment, because your boss needed the next PowerPoint presentation. The list of unfulfilled promises and expectations is endless, only matched by your accumulated frustration and guilt. The same is often true for the ideas and changes we want to realise in our workplaces and organisations. Business plans end their life without implementation on many a dusty shelf. The breakthroughs crushed by the all-too-familiar "don't rock my boat", which comes in the disguise of rational arguments such as:

- Great idea, but we tried this before and it failed
- Wonderful, but at the moment we really do not have the time nor the resources
- Super, but is this really relevant to our business?

The list can be extended endlessly. There are many ways of dressing up a "no" with apparently authentic arguments, especially when risk is involved. If you want to start something new and unfamiliar, the message from others often seems to be: you are alone. Officially we support and encourage the new, but when it leads to disrupting the status quo, support vanishes and encouragement easily fades away. Change is OK, but only if

the existing system stays intact, and “I’m not affected”. Exceptions exist, but in most cases they all start at the very top of an organisation. Grass-roots movements are discouraged. An enterprising spirit at the middle and bottom level is expected, but not supported if not in accordance with top management.

This has led to a peculiar situation. Effectively all attempts at change, in particular for disruptive innovation, depend on the initiative of the leaders at the top of the organisation. The rest of the organisation lies dormant or paralysed. This flies directly in the face of the call for networked organisations, distributed processes and innovation. Leaders and followers have an equal part in the situation. Followers take fewer risks, because they fear punishment from the levels above. The top levels become convinced that only they can actually introduce change, because they see no action from the levels below. Increasingly, everything has to flow from the top. But in a networked and distributed environment, the top management has no means of actually knowing what’s going on, if it is relying on hierarchically organised processes. Many attempts at change fail because of this, but sometimes an idea is so strong that it prevails despite the obstacles.

Often the middle management in many companies want to make a difference. They want to contribute to their companies’ success. The middle and lower echelons of organisations are in the best position to sense precisely the pulse of their environments and markets. When it comes to innovation, this is a hopeful area. Leaders and managers of innovation projects can count on the following conditions, which may foster the need for innovation today:

- Many companies have squeezed out most of the potential for efficiency gains by applying the same methods: lean operations, automation and work-force reductions. Often this has led to similar productivity gains in a rather large group of firms. This has at least two consequences: efficiency as a market differentiator is slowly vanishing, and profit margins are moving towards zero.
- The move from high wage to low wage countries is a last resort to cut costs. Industries, such as Information Technology, Automotive or Textiles seem to benefit considerably from this strategy.
- The current trend towards novelty inspired and fuelled largely by digital technologies. New and fresh is “in” and whoever comes up with the right products to satisfy this hunger can develop real market leadership.

- The interconnectedness of product and services into marketable lifestyle systems. Mobile communications, wireless computing, and music on demand are examples demonstrating the power of this trend.

In particular the high-wage countries will increasingly have to look to innovation to keep their work forces employed. There is really little or no choice here. It may look as if the working world can be split into the domains of low-wage/efficient production and high-wage/effective innovation. But this thinking only fools us. Neither do low wages necessarily mean low levels of education. In fact in an increasing number of low-wage countries, the standards of education are equal if not higher than in Germany. Herein lies a real danger. When the conditions described above no longer represent localised phenomena, but combine and join forces, they pose a real threat to high-wage countries.

Top management and leadership may be in control of investment money, and may wield power over resources, but they still depend on the insights of people closer to the markets and potential customers. This provides opportunities for innovation managers. If they can find the right words to portray to executive management the challenges stated above, and simultaneously have the courage to lever the creative energy of the whole organisation, they empower themselves to initiate processes leading to new opportunities.

Example

Successful product strategy in 2 days

Speed, timing and immediacy are key elements in developing and executing strategic plans. Imagine you have a very complex software development organisation with about 700 developers, spread across multiple international locations. You are at the edge of a new wave of industry needs. Your plan must reflect these trends and needs, and it must be created in such a way that all key developers are engaged in its implementation right from the start.

You are responsible for creating the plan, and know from past experience that traditional approaches have not been very successful. Here is what a middle manager at MyCorp did:

He convinced the leadership team at MyCorp to use Open Space, a workshop design for large groups, based on self-organisation. This was an unfamiliar concept for the company. The executive team had strong concerns and doubted the result of such an approach. Because of this they involved themselves in the preparation of the meeting. The CEO and his staff

familiarised themselves with the process, and asked the questions they wanted answered during the meeting.

For 2 days, ninety people from sales, marketing, product development and product support met and talked. Professionals, managers and executives were included. At the end of the second day, a 200-page document had been produced, covering 18 strategic questions from market analysis to product innovation.

At the beginning of the first day, the middle manager that had instigated the workshop, explained the principles of the process: self-organisation, responsibility for oneself, commitment and freedom of choice. Then the whole group collected the questions it wanted addressed during the meeting. These complemented those questions framed by the executive team. An agenda emerged, and each question was assigned a time and location during the 2 days.

Participants then signed-up for topics to which they could either contribute or from which they could learn. After that the groups started their work in multiple parallel sessions. Each group documented its own key-findings, and presented them in plenary meetings, organised between the group sessions. The facilitator collected the session results whenever a group session report was made, gradually creating the final document while the workshop was still in progress. At the end of the second day, a total of 18 group sessions had been held and their results had been recorded electronically.

In a final closing session all results were acknowledged, and everybody had a chance to say something about the significance of this meeting for his or her work. Follow-up meetings were held afterwards, ensuring customer feedback and detailed development and implementation plans.

Because of this initial success, MyCorp frequently used unorthodox, large-group meetings to update and complement its strategic product development plan. The developers were able to implement these plans without any time lag. Clarity about the task at hand, and enthusiastic engagement of participants, were key ingredients because all those who needed to be involved had participated from the beginning. Executives and management adjusted to the unfamiliar form of self-organisation because it gave them good results. The bottom line was impressive: this approach had significant impact on moving the company from \$80million to \$450million revenue in just 4 years.

But initiating processes leading to innovation is not going to be easy for you. You are still a part of an established system requiring you to follow its rules. However the increasing demand for innovative products, in particular those that disrupt the status quo, leaves some room to manoeuvre. To be successful requires some careful preparation, including an understanding of what to “pack” and what to “leave behind” on the journey towards innovation.

What do you need to let go of?

The most challenging skill you need to develop is that of accepting your fears. This is particularly threatening to our understanding of ourselves, because officially, we are fearless. We believe that courage is the absence of fear, although it is exactly the opposite. Courage is something we may have despite our fears. By facing and overcoming fear, we become increasingly courageous. When we are engaged in the creative act of bringing innovation to life in its most natural form, we face the fear of the unknown. What we have forgotten, largely because of our dependency on the efficiency paradigm, is how to do this. Very often small things open the door to new territory. Instead of being very precise and detailed, we may develop the courage to be less precise, and allow room for human ingenuity to work.

Example**Wide goals can generate spin-offs in other areas**

It is said of development projects that “the more precise the target definition, the more efficiently the target can be reached”. This may be the case for many development projects. For innovation projects though, the equivalent saying could be: “the less precise the target definition, the more effectively a target can be reached”. With many innovation projects, a target in terms of product or process may not exist at the onset. Instead it is the aim of the project to identify a suitable product or process, as shown in the following example.

Bernie: How is the work on the low-cost generator going, Bill?

Bill: Fancy a look at my latest brainwave, Bernie?

Bernie: Sure.

Bill: Have a look at this printed circuit. Notice anything unusual?

Bernie: Well yes. It looks like the leaf of a tropical plant.

Bill: As it happens, it is not a souvenir from my last holidays. It is a printed circuit that does not fail even if you spray it with salt water or dip it in a glass of water. Incidentally, I have already protected my idea by patent.

Bernie: I am glad you picked up the suggestion from our last chat. But do tell me, what does this ‘rainforest printed circuit’ have to do with your project?

Bill: Nothing yet. It has however, already revolutionised our submersible pumps.

The innovation cell had hit upon an idea that improved a product other than the one the innovation cell was trying to develop. It pursued the idea, and gave it to the development team responsible for the product. It then returned to the original task at hand.

Here are some of the unknown factors you may encounter and be afraid of, because you probably don't know how to deal with them:

- Nonlinearity
- Unpredictability
- “Chaos” / un-orderliness / “messiness”
- Self-organisation
- Organic organisation

Few business schools teach one how to understand, influence and be successful in environments that exhibit these characteristics. Most businesses don't dare even touch the subject. But despite this unwillingness, organisations that are built on these premises are already emerging. Now what makes these characteristics so foreign to us that we are even afraid of them?

Example

Succeed despite risk and face the biggest change

Few people like facing risks. Risks can all of a sudden turn into real threats for a company and its employees. It is only too understandable if people like to turn the other way when risks are looming up in front of them. A company however, cannot afford to ignore risks, or limit its actions because of fear. The following example illustrates the irrational nature of fear, which may stop an organisation from moving forward.

Clare: I would like to show you my latest results with the AF institute on Sapphire.

Bernie: Any signs of a breakthrough in welding and moulding?

Clare: It now looks as if we won't even have to weld anymore. We can do away with the process step. This will raise the chances of moulding the parts without any scrap.

Bernie: You have been doing research on the Sapphire technology now for almost a year. I think that is a great result. What does the business unit say? They must be pleased.

Clare: That is just what puzzles me most. When I started the research,

they were happy that someone was looking into new technologies for products and processes. Now they almost don't seem to want to know.

Bernie: Your technical solution six months ago was quite complex, and I was beginning to get lost when you explained it to me. Now with this breakthrough the solution has become simple enough for me to follow. Have you tried to explain the new solutions to the business unit?

Clare: Yes, Bernie. They seem to understand the new process easily enough, as you say. But I think it is dawning on them, that if my work succeeds, they will have to completely rethink their way of working.

The threat of change posed by the research project caused such a stir, that the business unit discredited Clare's work wherever possible. For a long time the business unit succeeded in cutting the project budget with the argument that if ever research proved the new technology to be viable, then the current business was jeopardised. The business unit was not prepared to finance its own internal competition. As a result it now faces very fierce external competition.

Non-linearity

James Gleick is reputed to have said "Non-linearity can be likened to the act of playing a game that has the effect of changing its own rules". When this principle is applied to an organisation, we may get what we call "agile" organisation. More than likely we will experience a different outcome than the one we had hoped for. The behaviour of the organisation may become unpredictable at certain times. Unpredictability is one of the most undesirable attributes of the efficient organisation. After all, order and predictability are the cornerstones of any reputable organisation. If these are absent, chaos lurks around the corner. Of course chaos stands in most cases for decay and doom. But it is a necessary prerequisite for the emergence of truly disruptive innovation. Remember that Penicillin was discovered not by an orderly process, but because of "messy" Petri dishes left unattended for a night. This same principle holds true for the organisation of innovative work. When we allow the group we selected, to do the innovative work alone at the right time, not intervening when it seems to get "messy", we allow self-organisation to emerge. Self-organisation will lead to the most natural and successful organisational form for a given innovation project. No formal leader is involved; no formal plans have been developed upfront. What is required is trust in the process, although from the outside we may not understand what is going on. Most managers and leaders will probably experience disgust at this approach, but it is exactly the

approach we are recommending to the innovation manager. There are plenty of things to be afraid of.

If we trust this process, we will encounter success. Boldly stepping forward into this unknown world opens us up to the laws and rules that lie behind its messy surface. These rules and laws are more beautiful than we can imagine. Everyone who has seen the beauty of fractals or their compelling symmetry knows the order which always and without exception emerges out of chaos.

All we need to do to experience this is to trust in the capabilities of living systems and despite our fears, to have the courage to step deliberately into this world.

What should you take on the journey?

When we start the journey towards disruptive innovation, we need to make sure we travel light. We have already overcome our fear of the unknown, and now we need to think about what to take on the trip. Because the pathway is so unfamiliar to us, every bit of progress, even when small, is worth recognition and frequent acknowledgement. The celebration of small successes will be as important as the mourning of failures, which we will undoubtedly also encounter. Often we will experience the transformation of failure into success, which will give us a reason to celebrate.

Although successes will come in many shapes and sizes, most as specific variations of a given project, some generic ones to be expected are listed below:

- the joy of collective clarity
- the satisfaction of being able to deal with the unexpected
- the gratification of facing and resolving conflict

The joy of collective clarity stems from the group's need to talk about its trip continuously, so that everyone understands where the journey will end. This is not to be underestimated. Only when we truly understand each other, can meaningful conversation emerge. But clarity is also required for alignment to common goals. Instead of behaving as in the following story, we might actually be able to understand each other.

The story of the blind men examining an elephant

Once upon a time, five blind men were asked to examine an elephant. The first was given the trunk, the second the feet, the third the tail, the fourth

the skin on the body and the fifth the teeth. They were asked to examine carefully the part they were given, without knowing that it was an elephant they were examining. After a thorough and lengthy evaluation, they came together at the end of the day to exchange their findings, and to reach a conclusion about what it was they might have been examining.

The first, who had examined the trunk, declared with confidence that it was nothing but a big snake. “No, no”, said the second, “you are completely off track. What we were examining was clearly a group of trees, planted firmly in the earth”. “Ha-ha”, said the third, “what stupid men you are, because you are not seeing” (another joke maybe) “the obvious: what we had in our hands was clearly a poisonous cobra snake. I still shiver at the thought of her forceful movements”. “I cannot believe the ignorance around me”, said the fourth. “Has none of you experienced the roughness of the surface, the little bumps and hairy things sticking out? For sure this was a poorly-sewn tablecloth”. “Oh Shiva”, declared the fifth, “rid me of these blind” (another joke) “and stupid people. What a false statement about the roughness of the surface. Haven’t you experienced how smooth and beautiful this thing really is? It can only be the masterpiece of a craftsman who created one of the most beautiful pieces of jewellery you can find”. And so they engaged in an endless dispute, no one ever giving up his point of view, and never, ever experiencing the elephant for what it was.

This story may have reminded you of one of your last “all-hands” or management meetings, but for sure it is not what innovation teams will experience. This is because team members will have developed the ability to see clearly, individually as well as collectively.

Of course they will also face failure. It’s not so important what specific kinds of failure they experience. More significant is the way they deal with failure. Whatever setbacks they experience, the team will always get back on its feet and learn from it. Therein lies its strength – the relentless drive forward, whatever it takes.

Your first step as an Innovation Manager

What makes a team take such a stance? Your role as a leader makes all the difference. Every journey begins with a first step, and you will be the one to take it. This first step is always unique to you. Your team will see this uniqueness and appreciate it. From then on you may have the followers you always dreamed of. But beware that your followers may become leaders themselves, during the course of your innovation project. Your leader-

ship style needs to adapt to the maturity level of your team, and this will include once in a while, the need for you to follow, while somebody else leads. Here are some of the different possibilities you might encounter on your trip:

Sometimes the team will look to you for straightforward guidance. In this situation you need to tell them clearly what their options are, and which one, from your perspective, is the most likely to succeed.

In other situations the team needs to consult with you. Here your leadership becomes that of the advisor and guide. Your view will be listened to and considered, but in the end the team decides for itself what to do.

Probably the most difficult situation for traditionally educated leaders and managers is when the team simply asks you to follow it, without any “ifs” or “buts”. Here you need to demonstrate trust in the team. It is a most demanding, but also very rewarding situation when handled properly.

Each of the situations includes a few more finely grained variations. But in essence, leadership on the way towards disruptive innovation breaks away from the traditional arrangement, where leaders and their followers are separated. It becomes dependent on context, where specific situations bring forth the leaders appropriate to them. This is hard work for you, because in the greater environment of the established organisation, this leadership approach will be met at best, with confusion. Because of this, something else is required of you. You will need to keep your traditional styles of leadership polished up, for communicating with peers and leaders outside the realm of the innovation project. This is a tough task, which will demand much of you. In the process you may even be “used up”, much like a reactant in a chemical reactions.

Why then, should you engage in such an endeavour at all? There are the obvious reasons of creating the desired result and reaching the set goal. When the journey is over, you and the team can leave it behind and look forward to a new adventure. But this is not all. Simply the fact of having travelled the path of an innovation cell towards disruptive innovation will have a lasting effect on you. The trip itself may be worth more than the results it created. This is because while taking the plunge you will experience your original freedom and creativity as a human being. The more often you plunge, the better you will become at it. This is a worthwhile reward in the business world, where somebody else dictates most of what we do. So in some way, engaging in this journey is also a first step to becoming again an independent human being. This may be true for all of the people involved in taking the plunge.

- *Well yes, I do want to innovate. I want to find fresh and unexpected territory. I want to go beyond existing boundaries to find those ideas that can make us successful in the future. I must admit, I am curious by nature!*

- Fine! But be prepared for a rough ride. At times you will be plagued with doubt, and at times joyfully elated.

- *This sounds good, but scary! I think I'm about to enter the dark zone. Of course I'm feeling nervous. I will need help- can you provide me with guidelines?*

- Yes, there are guidelines. Oh, and by the way, in fact you are just leaving the dark zone and walking into the dawn!

Innovation Cell

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