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## How to thrive at the edge of chaos

1. How quickly are you able to get something done within your organisation? Choose an example of a fairly small change and something more substantial. How long would it take to get each change implemented effectively?

If your sense is that it takes a long time, even too long, then your organisation is probably operating fairly 'close to equilibrium'. This high degree of order requires less ongoing effort to maintain the system, but it's potentially lethal for change and innovation.

2. How many "Plan Bs" (alternative strategy options) do you have in the drawer? Even good things must end. Is your organisation planning for change even in times of great success?

Another good reason for having a few options readily to hand is the impact of unexpected events - we might use recent events to remind us of how suddenly these may strike. Being prepared is not good advice restricted to Boy Scouts.

3. How wedded are you to a rational-linear approach? Organisations are complex systems, and are in turn only a part of many other complex systems. We need at the very least to include non-linear style thinking in our planning and implementation.

## LEADING IN COMPLEXITY - THRIVING AT THE EDGE OF CHAOS

### *From order into chaos*

The white-crested wall of water moved slowly but steadily towards the bridge spanning the river. Shallower conditions had, according to seismologists, slowed the wave from its initial speed of around 800km/h, to 'the speed of a very fast runner'. A shallower shoreline is also what caused the wave to grow in height.

Live vision from the 24hr news channel showed traffic continuing to cross the bridge. Tsunami alert sirens wailed in the background. Then some of the vehicles suddenly stopped, obviously having become aware of the surge. Instantaneously, the order on the bridge was interrupted. Some cars managed to turn, but the random actions of the other drivers quickly led to disorder and then gridlock! The traffic flows collapsed completely. Chaos prevailed.

Thankfully that particular bridge retained its structural integrity. Those on it survived without injury. Tragically though, as the water surged into the port and further inland, others were not so fortunate.

### *Order from Chaos*

The next hours and days revealed the extent of the Japanese catastrophe. In many places devastation. In some, even obliteration. The ongoing nuclear emergency continues to plague recovery efforts, adding terrible misery. The nature of news and the news cycle means that the still unfolding nuclear uncertainty dominates. Additionally, as some of the less accessible areas are reached, there are new stories of tragic losses. More chaos and carnage.

Yet, among all of this, a number of 'survivors' observe gratefully, "We are alive". Still others, probably yet to grieve for their losses, express their resilience and resolve. They will pick up the pieces, determined to rebuild new order from the chaos.

Perhaps the most remarkable story from this magnitude 9.0 earthquake is not about the chaos, devastation and loss. Instead, it's a tale of the triumph of order. It's less news-worthy though, so the media won't linger.

### *Innovation from living at the Edge of Chaos*

A success out of all the tragedy is how well most structures appeared to withstand the earthquake. In fact, according to the US Geological Survey, not only the fifth largest earthquake since 1900, but also the four powerful foreshocks (6.0-7.2) and more than 400 aftershocks. The island of Honshu itself moved some 2.4m.

While we despair at the loss of thousands of lives, we are reminded that early warning systems saved many more. Not everyone had the time needed to escape the tsunami, but hundreds of thousands did.

A seismologist, speaking to German news agency, Deutsche Welle, points out that, "Japan has become an expert in studying earthquakes and adapting to life with them".

The chaos of previous earthquake tragedies spawned a new, more resilient order. Lessons learned and the subsequent change and innovation that occurred meant that remarkably, on this occasion at least, the world's largest urban concentration of people, Tokyo, escaped 'the big one'. Shaken, but mostly unscathed.

### *How does this talk of chaos and order in Japan affect me?*

Your business is more closely connected with Japan than you may realise. It may not have close ties to the Japanese markets. You many not even experience much pain from the tremors caused in local markets. But, what you do have in common is that your business is a complex adaptive system, just like Japan.

All systems need to get the balance right between chaos and order. Too much order (think structure, regulations, restrictive processes) and your business may well suffocate under the weight of administrivia. However, systems without sufficient order can quickly descend into chaos, even catastrophe. Excessive order means things will take too long. Excessive randomness, or chaos, will generate too much risk.

Managers have a major challenge ensuring that there is sufficient order to get things done but that the organisation is 'far enough away from equilibrium' to promote positive change, innovation and growth. The critical points in systems, between states of randomness and order, are known as 'the edge of chaos'. These also reflect positions of maximum complexity. To add to the challenge, they are continuously moving since complex systems are dynamic.

Interestingly, recent brain science studies using neural imaging show that the human brain lives on the edge of chaos. Researchers point out that the brain uses it to enable rapid switching between perception and action. It's how we respond more effectively to changes in our environment. Organisations would want a similar ability to adapt nimbly to environmental changes (internal and external). Particularly more so than competitors.

### *Is your organisation thriving at the edge of chaos?*

Research published recently suggests that businesses are moving away from GFC cost cutting towards initiatives that foster growth. How fast, and how innovative they will be, will be to a large extent determined by how close they are to the edge of chaos. Does your business embrace the edge of chaos, or is it stuck, quite literally, in its order?