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The agents of complexity

Complex systems

As the number one driver of uncertainty, complexity deserves more attention than most people give it. The norm is to say, 'Things are complex', and to bumble along. In this chapter I delve into the field of complex systems and introduce the notion of agents of complex systems and their effect on complexity. I then discuss some of these agents and their influence on the level of complexity you and your organisations are dealing with.

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In her book *Complexity: A Guided Tour*, complex systems scientist Melanie Mitchell provides a layperson's definition of complexity as 'a system in which large networks of components with no central control and simple rules of operation give rise to complex collective behaviour, sophisticated information processing, and adaptation via learning or evolution'. A typical example is a school of fish. They swim along in perfectly synchronised unison, somehow knowing when to turn left or right and where to locate food and shelter. When their complex system, the school, is disrupted by a predator, the school quickly disperses, only to regroup and continue along whatever path they choose. There is no leader, just a sort of collective consciousness.

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This is important because organisations are complex systems and each develops a form of collective consciousness that manifests in the organisation's culture. To understand the importance, you need go no further than this explanation by Aaron Dignan, in an excerpt from his book *Brave New Work* on 'Changing Organisational Mindset'.[9]

Dignan explains the difference between complicated and complex by comparing it to the difference between a car and traffic. A car is complicated. It has many components. Cars with a combustion engine are powered by a chemical reaction that turns fuel into energy, which is also complicated. Yet everything about that car has been worked out by scientists and engineers. The individual components have been understood, linked together and arranged for a specific purpose: the movement of the vehicle.

Traffic also seems complicated. However, no one has yet been able to predict with certainty how traffic will flow, and hence control it. We have become better and better at understanding traffic flow and can predict what is likely to happen, but not what *will* happen. Dignan makes the point that unlike a complicated system, where we can work out cause and effect and therefore can control the system, for complex systems we can only manage them by nudging them. Dignan explains that complex systems are more about '*relationships* and *interactions* among their components than about the components themselves. And these interactions give rise to unpredictable behaviour'.

A typical example used when explaining complex systems is an ant colony. Ants of themselves are quite erratic, heading one direction then another, seemingly at random. As they encounter other ants, however, their behaviour starts to change. And as more and more ants interact, more and more 'teams' are formed to perform specific duties, such as building ant bridges to cross 'valleys', or defending the colony against attack. In other words, some form of collective consciousness emerges; hence the term used in complex systems science is *emergent*. Scientists describe an emergent system as one in which behaviours form from the relationships and interactions between elements of

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the system. In the case of traffic, it is the interaction between vehicles.

This leads to an alternative definition of a complex system by Melanie Mitchell as 'a system that exhibits nontrivial emergent and self-organising behaviours'. Take a moment to reflect on this definition and your perceptions of an organisation. In an organisation of any size, while the leadership team thinks their strategies and decisions will be implemented in a certain way, decisions are rarely implemented exactly as anticipated. Some element of self-organising behaviours emerges, and that is the essence of organisational culture — the way we do things around here.

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Now to Dignan's point about organisations as complex systems. He writes that 'organisational culture isn't a problem to be solved; it's an emergent phenomenon that we have to cultivate'. He goes on to explain that despite our best attempts to control an organisation through policy, process and system, it proves impossible. We end up with plenty of rules or constraints, which creates friction and organisational drag. The way to nurture the culture of an organisation, he argues, is to create the right conditions for individual decision makers to find a way to achieve organisational goals.

To illustrate the difference, and the cost of governance and compliance, let me relate a conversation I had with the CFO of a large listed Australian company. We were talking about the impact of governance and the loss of the old ways, where much more business was based on relationships. He used his sales force in an example of what happens when rules are applied. As CFO he necessarily needs to have company credit cards audited. The audit finds a few anomalies, such as entertainment expenses being incurred that were personal expenses. The lesson: 'Don't take your mate to lunch.'

So a few heads have to roll and a good chunk of money is saved as the practice halts across the sales force. Then sales go down by a lot more than the money saved. Why? Most likely because the best sales staff are risk-takers and look to work around barriers, not comply with them. It could also be that they were taking the right friends to lunch. The ones who had a connection to a connection to a good prospective client.

The attempt to control a complex system failed and more damage was caused than good. In Aaron Dignan's world, the alternate approach for the company would have been to find a way to influence the culture of the sales force to achieve a better result. He uses an example relating to travel expenses that I apply here to sales force expenses.

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it to the sales force that the organisation wants to create transparency over entertainment expense accounts and the results they drive. That is, publish the expense accounts for each member of the sales team or for each sales team — current spend, historical spend, average spend — and compare them to sales outcomes. Then allow the sales force to determine how to maximise the ratio of sales to entertainment expenses. Then, as Dignan says in his travel example, 'stand back and see what unfolds'.

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This type of thinking causes a real issue for risk and for compliance practitioners that highlights a big problem. We talk so often about controls and compliance to rules and regulations, but an organisation is a complex system that, by definition, can't be controlled. If you want to test that statement, look at the Australian Defence Force (ADF). I'm assuming you would agree that the ADF is a command and control type organisation. Yet off the battlefield there has been failure after failure of the command and control model. This is evidenced in the 2015 First Principles review of the ADF, a major reform project. At the end of the report the authors cleverly created a table of all the major investigative and reform reports of the previous 15 years (of which there had been five). In the table they listed nine recurring themes relating to capability development of the force, then indicated in a checkbox if the same finding had been made in any of the previous five reports. All bar two boxes were checked.

There are many, many elements of an organisation that are simply complicated and not complex, and hence can be controlled. The system as a whole can't. So focus your efforts on controls and control self-assurance on complicated elements such as a production line or a payroll system. But please don't try to control the organisation as a whole. We can only nudge it in the right direction.

Now I am going to turn to agents of complexity before discussing some of the agents in play in your world.

Agents in a complex system

Where there are complex systems there is the concept of agents (another name for components). While *component* implies something inanimate, *agent* suggests an animate subject. Hence in a school of fish the components are the fish, which I am now going to refer to as agents because fish are animate.

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When a school of fish is attacked by a predator, the predator is an outside agent. Now consider the ocean as a complex system. The school of fish becomes an agent, and so is the predator. However, within the complex system that is an ocean, agents in the system interact. When fish find themselves overwhelmed by predators, such as a school of salmon herded by dolphins into the corner of a bay, chaos ensues and the school of fish breaks down into individual agents, which are the individual fish. After the feeding frenzy ends, the remaining agents (fish) regroup to form a school, which again becomes an agent of the broader complex system, the ocean.

Now consider an organisation such as an aged-care facility, insurance company or petrochemical company. Each is a complex system; however, they are also part of a broader complex system known as an industry. And each of these three industries has a regulator. Regulators therefore are an agent of the industry and an outside agent of the organisation. As with predators feeding on a school of fish, regulators influence the behaviour of organisations and sometimes directly the individual agents within.

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Okay, okay, it's very harsh to be using an analogy of predators gorging on a school of fish to represent the impact of regulators on an organisation. Still, I think you can get my point. But let's not stop there. How about all the other outside agents, such as what I call the 'Judges', the people whose role is to look at your organisation and pass judgement, like share market investors do every day when they buy or sell the stock of a listed company?

In the next sections I explain the influence of these outside agencies and their impact on the level of complexity you need to help your organisation navigate.

Influence of regulators

I have a favourite saying about the impact of regulators when it comes to risk. Because regulators are focused on things not going wrong, and because they need to have evidence that the organisations regulated are following the regulations, regulators need documented processes and documented outcomes. So my dictum is:

> *Regulators demand red tape. The risk function creates the red tape. And the business spends the rest of the time trying to avoid the red tape.*

Red tape is a necessary evil. However, risk professionals need to manage it smartly. This means walking the fine line between too much and too little. Even more importantly, your job is to get the organisation into a position where it doesn't just satisfy regulators — it influences them.

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Several of my clients are in aged care. In 2019 a Royal Commission into the sector was launched. Some, thankfully none of my clients, had massive reputation damage because their poor performance was highlighted in the hearings. Some, like Australia's largest provider, Bupa, were singled out by the media for special attention. The Australian Broadcasting Corporation analysed the accreditation reports issued by the Aged Care Quality and Safety Commission and found that 'More than half of the nursing homes . . . are failing basic standards of care and 30 per cent are putting the health and safety of the elderly at "serious risk"'.[10]

One of my clients, on the other hand, because of their tremendous track record, sailed through almost unscathed. Yes, they had some incidents but they were few and the way they handled them was exemplary. Because of this and the work done over many years, their CEO was invited onto a government committee and was able to heavily influence the government's response to the findings of the Commission. There is hope for the aged care sector that the government's response will not be needless red tape.

Unfortunately, it is too late for the finance sector. The financial regulators opted for the Three Lines of Defence (3LoD) risk management model.

Unfortunately, it is too late for the finance sector. The financial regulators around the world opted for what at the time was called the Three Lines of Defence (3LoD) risk management model. This model is simple and sounds great, in theory. The first line of defence is the business decision makers, the second line is the risk and compliance teams, and the third line is the internal audit function. The inference here is that each will check the other, so the organisation has three sets of eyes looking over decision makers across the organisation.

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Unfortunately, by its very nature, the 3LoD model has negative, downside risk implications: it feels very anti–agile business. So the more ambitious a management team, the more they feared it and the more they were frustrated either by it or by its implementation. To add to the problem, the language that developed around the 3LoD, language like the role of the second line is 'to provide oversight and challenge', created more trouble for risk and compliance professionals. This terminology hurts our ability to influence. The problem is that managers wish to be regularly challenged only if they are proven right, and no one, but no one, wants to be 'oversighted'.

So while the 3LoD is good for the regulator as it is definitely about organisations not failing, it does not sound like it is pro-business or pro–risk taking, which of course is essential for business success. While many will argue the problem lay in how the 3LoD was implemented, the evidence is clear. Despite over a decade of implementation of the Three Lines of Defence model of risk management, globally the banks have continued to be hit with massive fines for misconduct since the 2008/09 financial crisis. In Australia the government formed the 2018/19 Royal Commission into misconduct in the finance sector. And headline-grabbing misconduct was found in spades.

Unsurprisingly the Institute of Internal Auditors reviewed the 3LoD model and in July 2020 released the Three Lines Model. The revised model dropped the word 'defence' for all those negative connotations, emphasised the creation and protection of value as per ISO 31000 and clarified roles and responsibilities of key players. I offer a critique of the Three Lines Model, in 'design' in chapter 7.

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Regulators are a strong agent of complexity. They demand red tape and they can wield a big stick. These create a level of uncertainty until an organisation has worked out how to meet the requirements of the regulator and to be best in class at doing so while minimising any adverse impact on the business.

Influence of the 'judges'

Who are the 'judges'? Earlier I gave the example of share market investors who buy and sell your stock. While they are judges of your worth, they are not the judges that cause you complexity. The judges I am talking about are the ones you interact with more or less directly. If you work for a publicly listed company, they are the analysts and the external auditors. If you work for a government agency, they are the ministers and the auditors from the Audit Office. If you are from a large, privately-owned company, it's the family-appointed advisory board. If you are from the not-for-profit (NFP) sector, it is the founders. All can be incredibly hard judges and make your world more complex.

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Analysts

They are agents of complexity because there are so many of them with so many different views; and, more importantly, because their thinking is short-term. They make money for their firms if they create a reason for you and others to buy and sell stocks. A 'hold' advice won't last long because if the stock goes up or down they are wrong, and stocks are always moving. Hence you will see plenty of buy and sell positions. Analysts also need to be seen as smart, so their public commentary on your organisation, whether it is around a loss of confidence in the CEO or an opportunity to divest a business or to seek growth through acquisition, is often aimed at encouraging decision makers to act.

Auditors

External auditors create complexity because you know they will come looking. Worse still, poorer auditors can have blinkers on. Like stock analysts, they have a view of how something should look in your industry or for an organisation of your size or a market segment you are operating in. This leads to a choice between following their 'conventional wisdom' and pressing on and arguing it out with them later.

Ministers

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This one might be obvious to you. If you are at the whim of a minister, keep in mind that ministers change directions like the wind. Never underestimate the power of political expediency to drive their decision making. With so much uncertainty as to what the minister will be pushing next month, it is hard to plan and even harder to execute. You are forced into execution with maximum reversibility.

SME Advisory boards

Like all the others, these external agents come with their own view of the world. And some appointees to advisory boards are there because the family trusts them, not because they are knowledgeable about the sector or good at being a board member. On the other hand, they may come with their own agenda.

Founders

Founders make things complicated because they are so passionate about the cause and they usually have plenty of past blood, sweat and tears in the game. They want to make an impact, and they have a view of what works and what doesn't. I have been involved with many NFPs both as an adviser and as a board or committee member (as a volunteer). I have seen it firsthand; the passion that founders have will often cloud their judgement.

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Royal commissions

These are the mother of all outside agents. Having worked at HIH Insurance, I remember well its impact on the industry. Jail terms for the CEO, CFO and MD of Australian operations focused the minds of players in the industry. So too did the criticism of the regulator, APRA. They became focused and they grew teeth. So much so that when the GFC came along, their influence on Australian banks between 2003 and 2007/08 helped save us from the finance sector calamities we saw in the US and Europe. And when the Royal Commission into conduct in the finance sector came in 2018/19, they were let off relatively lightly compared with their sister regulator ASIC, which had not grown the same set of teeth. Having been at HIH and having clients in the spotlight in the child abuse, finance sector and aged-care Royal Commissions, I can attest firsthand to the effect they had, whether during commission hearings, when planning while awaiting the final report and recommendations, or on resourcing before, during and after the report. Emotional, stressful, remorseful, confused and uncertain are words that come to mind.

Now let's look at how we can deal with these outside agencies.

Herding the agents

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When I sit back and think about the most successful organisations I have worked with, I conjure up a leadership team that's very good at influencing outside agents, or very good at holding the outside agents to account, explaining what's wrong with their requirements. Or both. They may be regulators or any of the other 'judging' agents of complexity. One example I can think of is a client in the aged-care sector. Within a short period I saw them positively influence a Royal Commission and make it very clear to authorities during the COVID-19 crisis that they would not cede control over their operations to care for the most vulnerable to the virus unless they were overwhelmed. They were highly confident they had the right systems, and that as long as they could staff their facilities, their residents were as safe as they could be. Here are some thoughts on how to herd agents of complexity from the list in the previous section.

Analysts

The problem for organisations is that they need to keep in mind the influence of analysts while at the same time influencing them on the importance of looking at the long-term vision. This is easier in Asia, where they naturally think long-term, than in the 'we want it now' western world. My observations are that the organisations that do this best get as close as allowed to analysts and always emphasise the long term.

Auditors

One of the most successful CFOs I know keeps the complexity driven by external auditors down by 'holding firm and providing credible answers'. They are smart people but they can't know an organisation in the few weeks of an audit, even if they have been the appointed auditor for a number of years.

> While some ministers will simply not care and will expect the leadership team to handle it, others will open their eyes to the longer-term implications.

Ministers

Because ministers are often driven by political expediency, their priorities change frequently. So have a list of priorities with the prioritisation criteria very clearly recorded. When the minister wants a shift, explain which of the agency's projects must be curtailed or halted in exchange. While some ministers will simply demand more and expect the leadership team to handle it, others will open their eyes to the longer- term implications. I also recommend having a good story to tell as to why you can't adapt immediately to their latest demand. Not a make-believe one. An explanation of the probable impact on people and organisations with names.

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SME Advisory boards

As with any board, you need to ensure they are confident in management. Your role as a risk practitioner is to ensure that the Advisory Board, like any other board, is confident the leadership team has a good grasp of the uncertainties they are dealing with and that their strategy reflects the risk appetite of the family. If a board member comes with their own agenda, your job is to provide insights to the board that ensure this agenda, good or bad, is clearly visible.

Founders

In the NFP sector, the secret to dealing with the 'founding fathers' (to use a stale old term) is to recognise their views and design a path to influence them. It starts with acknowledgement of their past achievements, their right to a seat at the table or a voice of influence. But it moves on to those the organisation serves — how their needs have changed, or how more needs to be done or done differently.

Royal commissions

Look no further than the finance sector Royal Commission. Those that played hardball lost. The highest-profile casualties were the Chair and the CEO of NAB (National Australia Bank). Working with other clients showed it was about inward reflection, honesty and responsiveness. If the commission wanted information, you did your very best to get it to them in a form they would prefer. Some industry players opted for the 'send them a thousand pages' approach. Others were much more accommodating.

If you lack influencing skills and you poke one of these agents in the eye, you are likely to have a much more complex world on your hands.

You may have noticed how much of the response I am recommending to outside agents is about *influencing*. We all know what it is like to 'poke a bear'. If you lack influencing skills and you poke one of these agents in the eye, you are likely to have a much more complex world on your hands.

In the following chapters I unveil the true value of the risk management function, how to obtain that value and how to maintain it. I finish on the subject of influence, because being technically right as a risk practitioner has never delivered the goods. Ultimately your job is to influence leaders to be better at risk-based decision making.