Chapter 1.4: Leadership, management and governance in the extended enterprise

Prof David Welbourn, Prof Dean Fathers

Why this chapter?

This chapter focuses on the reality that governance has more to do with people, behaviours and relationships than it has to do with processes and structures. To understand what constitutes a sound approach to both governance and risk management across the extended enterprise, it is necessary to understand that the demands and styles of leadership and management that contributed to organisational success are no longer sufficient to guarantee success in the world of complex adaptive behaviours that are much more prevalent in this context.

Introduction

It will be clear from this collection of resources that the step of broadening thinking beyond individual organisations to the extended enterprise is more than a matter of scaling existing principles. What may be less evident is the extent to which we have to escape the boundaries of traditional thinking before we can begin to make anything more than superficial inroads into the challenge.

Our whole philosophy and understanding of organisations, their structures, the management processes, regulation, performance, risk, and accountabilities – to select just a few of the bedrocks of governance – are based on a view of the world that Meg Wheatley\(^1\) has described as Newtonian. This classical world is one in which causality is largely linear and predictable, organisational constructs are dominated by hierarchical thinking, and although we may need complicated analysis, problems in the main have logical solutions that can be determined if only we have the patience, computing power and suitable frames of reference for measurement.

We know instinctively that such a utopian state is beyond our reach, but we cling fast to the sure belief that the foundations on which we have built both our practical experience and theoretical concepts are a sound and sufficient basis.

But in organisational sciences, we stand as it were at a period equivalent to the dawning of the 20\(^{th}\) Century for the physical sciences, when our Newtonian world was about to be rocked in every conceivable direction, as relativity, quantum physics, field theories and chaos would usher in a world of new understanding that would begin to explain some of the unanswered questions, whilst at the same time predicting and then demonstrating undreamed of phenomena (when the laser was first predicted, there was neither known mechanism to create one, nor any inkling of what purpose they could serve, yet they are now ubiquitous in the fabric of society’s infrastructure).

As we move the locus of our organisational studies towards the extended enterprise, it is as if we are at this same dawning, holding fast to the Newtonian roots and struggling with the primitive understanding of what will ultimately become the Quantum age. And continuing the analogue a little further, what we might loosely group as the quantum sciences demonstrate that in 99% of
cases, Newtonian models are still relevant and sufficiently accurate to describe our world. The fresh insight from our new science though, has shown us precisely when and how traditional models fail, but we have yet to reach an equivalent realisation in organisational sciences. Like even the great Einstein, we baulk at the ineffable nature of some of the emergent thought. Over time though, the frontiers of physics have continued to blaze a trail past the superstitious declarations: “here there be dragons!”

developing our understanding, and delivering both tools and knowledge that continue enhancing our lives, some of which are accessible to the lay population, and others which are the preserve of the specialist.

As Oliver Wendell Holmes stated more than a century before its true significance was recognised “I wouldn’t give a fig for complexity this side of simplicity, but I would give my right arm for simplicity the other side of complexity”. Our aims to develop organisational and leadership science into this new world demand the confidence to explore the complexity, before translating the consequential impact into simple, clear and profound messages.

Establishing a new foundation

If we are to build a new understanding for this world of the extended enterprise, then we need to build a new framework around principles that prepare us for the emergent “quantum-like” organisational science. In this section, we expose some of the shibboleths of our “Newtonian” world to the need for fresh understanding.

Whilst the number of definitions abound, traditional models will be characterised by the following broad definitions:

- **governance** refers to the set of structures, processes and relationships within which decisions are made, resources deployed and accountability is managed, to achieve agreed goals;

- **management** is the process of allocating and controlling resources towards an agreed set of goals and outcomes;

- **leadership** is the process of influencing (inspiring) followers to work towards a shared vision;

- **regulation** involves two distinct purposes – enforcing compliance with defined standards, and, in cases where there is an asymmetric power relationship, acting on the side of the weaker parties to prevent abuse by the more dominant party;

- **an organisation** is a bounded autonomous entity with defined governance and accountability structures over which the governing body has controlling authority and relative freedom to determine purpose, action and behaviours;

- **risk** and **uncertainty** reflect different ways in which uncontrolled factors impinge on the achievement of goals and effective management is a vital aspect of governance: generally the term risk applies to quantifiable probabilities and uncertainty refers to the unknown and unknowable.

In preparation for our new framework, additional definitions are required:
• a **system** or **extended enterprise** is a complex interdependent and interconnected set of entities where the actions and behaviours of one entity interact with those of its neighbours within the system;
• markets, networks, collaborations/ partnerships and movements are all different types of system, characterised by different forces and power relationships between the component entities in the system;
• a **complex adaptive system** is one in which the numerous relationships within the system are not static (or passive) but are determined by an active or adaptive process, which gives the system the potential to learn and adapt its behaviour based on both context and previous experience.

The new paradigm will be built at system level, frequently one that is complex and adaptive.

It is important to understand some of the interesting properties of complex adaptive systems, which make the analogy of quantum science particularly apposite:

• even if it were possible to know everything there is to know about the system, it would be impossible to predict precisely what will happen to that system, but it is possible to discern the probable range of outcomes;
• the process of observing and measuring a complex adaptive system, changes its behaviour (in the same way that simply asking someone’s opinion on a subject primes their thinking, thus influencing how they respond);
• the boundary between simple and complex adaptive systems is not static – when simple systems are placed under sufficient stress, they begin to exhibit behaviours of complexity;
• complex systems are often characterised by turbulent conditions described as VUCA – comprising Volatility, Uncertainty, Complexity and Ambiguity;
• the combination of VUCA forces often creates chaos and disorder (as defined by the science of chaos theory) increasingly manifesting as paradox, in which apparently conflicting and contradictory factors are observed – so much so, that Gleick in his prologue, echoes Wheatley’s observation about the boundaries of classical thought “where chaos begins, classical science stops”.

Laurence J Peter understood the difficulties posed by this new world, when he said: “**Some problems are so complex that you have to be highly intelligent and well informed just to be undecided about them.**”

**The implications of the new paradigm**

The most immediate observation arising from the combination of ingredients in this new paradigm, is that whilst performance improvement in organisations or simple systems can be brought about by stronger control, this is not true in complex systems. A complex system cannot be controlled, since its final state can never be predicted accurately. It can, however, be influenced. The more the system has a propensity for adaptation and learning, the greater the probability that it can be influenced or nudged into the desired state.
The profound revelation from this understanding is that traditional management (control of resources) becomes ineffective in complex systems, but strong leadership (that seeks to use influence to guide people towards the shared vision) can achieve the desired results.

The more powerful and attractive the vision, the more likely followers are to buy that vision and commit their personal energies to its realisation. But we also know from the study of social movements, that people are attracted initially by the picture created by the vision (story and narrative is hugely powerful here), but are sustained in their shared commitment through alignment of their values. Opposing ideologues often come together around a simply-expressed common purpose, but then rapidly fall out as their opposing motivations and values are exposed when they seek a deeper understanding of why that purpose is important, and how it should be delivered. The one force more destructive of a powerful vision than conflicting values is lack of sincerity or authenticity. Values must be lived and breathed!

This understanding leads us to the first of our considerations of leadership – principles that, if followed, contribute to successful outcomes in the world of the extended enterprise or whole system.

In the new world of the extended enterprise, the foundations for success are built on clarity of a graphically illustrated vision, and the alignment of explicitly declared values that are constantly reinforced in the way leaders live and breathe them in practice.

The economic crisis triggered in 2007/8 marked a watershed that highlighted the dangers of a complex, interconnected set of systems in a rather dramatic way. The majority of observers interpret the multiple failings as weaknesses in an otherwise well behaved set of global structures. Eliminate the weaknesses and all will be well! Consequently, the world of corporate governance, regulation and risk management is increasingly focused on strengthening the rigour of controls in a renewed attempt to regain command of the logically, deterministic, Newtonian system.

But the globally interconnected world behaves as a complex adaptive system in which a few key elements of understanding indicate that such regulatory intentions are more likely to exacerbate, rather than prevent failure. The historical development of corporate governance provides an interesting study. Each new extension of regulation was triggered by a major catastrophic system-wide failing, where each such failure was usually triggered within a single organisation. Occasionally the trigger arose from complacency, ignorance or naivety, but more often by corruption or sustained efforts to gain new competitive advantage by stretching the boundaries of acceptability. But the catastrophic failures that led to wholesale damage arose when this attitude was accompanied by blindness and complicity in the governance fabric of the whole system (Maxwell, Enron, Lehman etc.).

Despite the fact that the quality of governance is invariably measured by process and task, experience tells us that failure is invariably precipitated by inappropriate behaviours or breakdown of relationships. This is true whether it be one of these major systemic failures, or simply a local organisational failure. The regulatory response to each has been to wrap increasingly complex compliance mechanisms across the system, each seeking to control processes and tasks. Concentration on a regime focused on enforcing compliance stifles the sense of ownership,
constrains the initiative of individuals and teams, and suppresses innovation and quality improvement – the very elements that fuel sustained success.

In his review of the financial service industry collapse, David Walker\(^9\) identified this reality:

\[\ldots \text{Board conformity with laid down procedures such as those for enhanced risk oversight will not} \]
\[\text{alone provide better corporate governance overall if the chairman is weak, if the composition and} \]
\[\text{dynamic of the board is inadequate and if there is unsatisfactory or no engagement with major} \]
\[\text{owners..} \]
\[\text{Principal deficiencies in boards related much more to patterns of behaviour than to} \]
\[\text{organisation..} \]

Similarly in her review of the safeguarding of children following several high profile and catastrophic failures, Prof Eileen Munro\(^10\) identified precisely the same overburdening emphasis on process as a growing bureaucracy that inhibited the very purpose it sought to protect, stifling the care workers’ ability to support the people in their care, commenting:

\[\text{A move from a compliance to a learning culture will require those working in child protection to be} \]
\[\text{given more scope to exercise professional judgment in deciding how best to help children and their} \]
\[\text{families... forces have come together to create a defensive system that puts so much emphasis on} \]
\[\text{procedures and recording that insufficient attention is given to developing and supporting the} \]
\[\text{expertise to work effectively with children, young people and families.} \]

We have published the findings of our research\(^3,11-15\) into the characteristics of effective leadership and how it needs to differ in the context of whole systems rather than single organisations. This reinforces these messages by stressing the importance of valuing and encouraging curiosity, because an effective complex system is one in which the widest possible view of learning is engendered. We characterise this as:

- adopting an open, enquiring mindset that is never satisfied it has found all the appropriate answers, looked far enough over the horizon to find helpful ideas from elsewhere;
- going out of your way to make new connections because each new connection opens up new possibilities, new ideas and new perspectives;
- viewing diversity in the widest possible context (different cultures, educational backgrounds, disciplines, ways of thinking, experiences, as well as the usual gender, ethnicity, sexuality, faith) and drawing deeply on these different perspectives that help shed new and creative light on traditional problems.

Such curiosity is a more powerful ingredient of good governance than a compliance culture. The high performing board sees itself as the first line of regulation for its business, values true diversity and constantly asks itself how it can improve. This demands an outward focus, searching for ideas and examples from which to learn, and a self-awareness stimulated by regular reflection on its own behaviours and effectiveness. By setting this tone at the top, such a board will foster product and/or service innovation throughout the organisation. For those involved in complex systems, innovation in both the business model and the critical relationships and interdependences across the system will be important.
Echoing these three dimensions of curiosity, research shows that diffusion of innovation, (crucial to system-wide change) relies on three agents:

- mavens who have both access to knowledge and the insight to broker the right knowledge in the right time and place;
- salesmen who have the power to persuade others and build momentum;
- connectors who have the networks and connections to know who to engage with and how to build the right bridges.

Successful leaders of complex systems exhibit a heightened sense of curiosity that simultaneously seeks new knowledge and new relationships from as diverse a variety of contexts as possible, creating an environment that becomes embedded in the psyche of the system.

The final tier of our leadership model builds on the foundation of clarity and authenticity of both vision and values, and takes advantage of the fruits of curiosity to demonstrate courage in both its actions and behaviours.

A key element of this courage is to embrace the reality that uncertainty is a defining element of the system. This uncertainty will appear in all of the dimensions of VUCA and may manifest as both chaos and paradox. It is often experienced as a series of interconnected wicked problems for which there is limited experience on which to draw, whilst attempts at logical analysis prove to be frustrating and futile. Wicked problems are like a water bed – apply pressure in one area and its effect manifests somewhere else. Wicked problems cannot be compartmentalised and solved in parts. They can only be addressed as a whole. They cannot be addressed superficially, they need deep understanding! They cannot be solved by individuals whose limited compass reveals only partial understanding, only by the diverse teams that can bring their varied experiences and multicoloured curiosity to bear.

The system leader must have the courage to face down these wicked problems, by throwing away the traditional rule-book. Harnessing the energy of conflict is demonstrated to stimulate more constructive approaches either compromising or avoiding such conflict. “Cooking the conflict” is an approach that openly embraces and works with the tensions of disagreement. The culinary metaphor is no accident – allowing the dish to simmer enhances the flavours, generating a more palatable outcome, but only when the conditions are just right. Too much heat risks destroying the flavour whilst too little reduction leaves the dish watery and insipid. Wicked problems demand a similar “goldilocks” approach, and leaders must combine their judgement and experience to know when it is “just right”. This demands an ability to navigate at just the right combination of depth and breadth! They need to engage the subject at depth with a widely diverse team who have both the detailed operational knowledge and the breadth of influence to take and implement bold decisions. Such an approach is contrary to a typically expedient approach to problems that can too frequently be satisfied with a superficial understanding. It is also considerably more demanding of both time and resource, but it is the only way to find sustainable solutions to wicked problems. One senior leader commenting on such an immersive approach described it as “life changing” (cross reference to the Total Place case study).
It is instructive to note that the beloved Pareto rule fails miserably when applied to complex systems. Over the long term, it is always the minor perturbation that creates the step change – never the mainstream. Conventional wisdom would seek solutions based on the prevailing climate, but it is the extremes of weather that create the turbulence wherein the risks really manifest. The hurricane or typhoon grows from a small anomalous wind pattern, reinforced over time by the feedback mechanisms created by the earth’s rotation. Solutions that are both resilient and robust must anticipate the unexpected and unpredictable anomalies, rather than assume that designing to typical mainstream conditions will be adequate. In this regime, uncertainty dominates risk in the governance process, as the quantifiable is overshadowed by the unknown and unknowable.

The other dimension of the leaders’ courage is the willingness to cede rather than tighten control\textsuperscript{15-20}, just when the risks and uncertainties are rising. The system can only gain the speed and agility to maintain resilience if the power to decide is vested in those with first hand knowledge who also have the ability for timely response. Leadership and decision-making must be distributed throughout the organisation and even wider into the extended enterprise or system. Much of the academic learning in this context has been derived from studying ant colonies whose behaviour exemplifies the art of decision-making that is truly distributed throughout the whole colony\textsuperscript{21}. The collective decision emerges when the local information gathered by each ant is shared according to a set of rules that is understood across the whole colony. In practice, the Internet Protocol (IP) networks, instrumental in the working of the internet, are the largest human manifestation of such distributed decision-making. Each data packet contains header information whose interpretation at each node within the network determines which direction is the most favourable at that moment to ensure that the packet reaches its final destination. Communications within this intelligent network are simultaneously cheaper, faster and more effective than the old point-to-point command and control systems they replaced. We are slowly realising this applies to organisational science too.

Whilst it may seem courageous of leaders to delegate responsibility throughout their own organisation over whom they can still exert authority and retain some sense of accountability, a clear mark of systems leadership is that of ceding power to others for the greater good, even where that is to another part of the system entirely. For this to work effectively, the whole system needs to develop an authorising environment\textsuperscript{23-24} within which actors share a common interpretation of words, meanings, rules, norms behaviours and expectations. In short a process of governance that reaches across the extended enterprise, working in partnership with the governance operating within each of the discrete organisations or parts of the system. Unlike its single-entity counterpart, such an authorising regime is much more likely to be built on shared values than processes and protocols. An authorising environment will always exist. Even where it has not been intentionally formulated there will always be “the way we do stuff here”, however informally it is documented or understood by all the players. It may often run counter to the formally agreed mechanisms. Failure to recognise the significance of an authorising environment will ultimately pose a severe limitation on the system, as it develops a level of exclusivity that is the preserve of those with the right connections, tacit knowledge, and appropriate back-door processes. The defining characteristic of such authorising environments is that they are not solely defined by structures and positional power, but are influenced by informal mechanisms built on respect, trust, credibility and situation.

General McChrystal\textsuperscript{22}, in-theatre leader of allied forces in Afghanistan learned this from experience:
“We had to change our structure to become a network. We were required to act more quickly. Instead of decisions being made by people who were more senior – the assumption that senior means wiser – we found that the wisest decisions were usually made by those closest to the problem”.

The wise system leader will expose these mechanisms to foster transparency and encourage inclusivity, and will seek to develop formal structures that run with the grain of the informal relationships wherever possible. In this context, effective system leadership is characterised by unusual descriptors: magnanimity, humility and servant leadership being important elements.

The final tier of system leadership is therefore characterised by courage – more than anything, the courage to rewrite the rule book of what matters in terms of personal behaviours, risk taking and the energy to face uncertainty by relying on others.

The systems leadership model shown in the figure below and underpinned by published research, contains seven elements introduced above and repeated in the table below. These are split into the three tiers of clarity, curiosity and courage, and split laterally into those that focus on task/process and those that focus on behaviour/relationships. Achieving balance between the process-dominated “rational” world and the world of behaviours dominated by emotions, attitudes and beliefs is crucial to the new “quantum” science of the extended enterprise. It is appropriate that the relational model between these characteristics takes the form of a honeycomb, given the opportunity to learn from hive insects.

To emulate people who are successful in leading complex systems, the following seven approaches are recommended:
• go out of your way to make new connections
• adopt an open, enquiring mindset, refusing to be constrained by current horizons
• embrace uncertainty and be positive about change – adopt an entrepreneurial attitude
• draw on as many different perspectives as possible; diversity is non-optional
• ensure leadership and decision-making are distributed throughout all levels and functions
• establish a compelling vision which is shared by all partners in the whole system
• promote the importance of values – invest as much energy into relationships and behaviours as into delivering tasks.

The relationship between leadership and governance

So far we have focused on the combination of attitudes and actions that individuals need to adopt if they are to be successful in the most challenging aspects of leading across an extended enterprise or whole system. In any organisation, the most senior leaders will be the members of the governing body or board. The governing body will be the vehicle through which governance is provided and this will inevitably mirror the collective characteristics of these most senior leaders. In the UK model of governance, the governing body comprises executive and non-executive members within a unitary relationship. Whatever differing perspectives have been addressed in the process of reaching a decision, once made, the final decision binds all its members individually and collectively to a corporate commitment. Internationally, alternative models include those typified by the US-style and the German style. The governing body in the US model is two-tier, separating the roles of executive and non-executive directors, so that external accountability is managed through the non-executive tier, who define the mandate within which the executive tier operates. The German model operates a unitary board similar to the UK model, but with the addition of a governing council of wider stakeholders (including workers) whom the unitary board must consult on all significant matters.

Whichever model is adopted, the governing body provides the contextual framework within which its members discharge the governance through their actions and decisions as leaders. We have already seen that leadership in the extended enterprise is founded on:

• the ability to establish clarity of purpose in which the importance of a clearly articulated vision and goals is reinforced by expressed values that are lived and breathed by senior leaders and therefore echoed throughout the extended enterprise;
• a curiosity that embraces the widest possible diversity, constantly seeks new sources of learning – both internal and external, and
• the courage to recognise that the volatility, uncertainty, complexity and ambiguity are part of the new reality that need to be embraced with the confidence and willingness to distribute decision making throughout the enterprise, even ceding power to others on occasions.
Earlier, we defined governance as the set of structures, processes and relationships within which decisions are made, resources deployed and accountability is managed to achieve agreed goals. It therefore follows that effective governance in the extended enterprise responds to these patterns of leadership, with a reasoned response to what occasionally appears counter-intuitive.

The most obvious response is that we can no longer view governance through the lens of process alone, despite the considerable weight of practice to this effect. Governance, whether weak or strong, is experienced in the attitudes, behaviours and relationships. In a predictable, Newtonian world, this can be expressed and measured through the proxy of the processes that support and measure these interactions. In this traditional world, the regulation of effective governance is dominated by compliance to the relevant codes of conduct. Adherence to this code is designed to protect stakeholders including investors, employees, suppliers, from failure to exercise diligent levels of propriety and care towards their respective stakes.

In times of increasing complexity and VUCA, the temptation to strengthen controls and enforce compliance to rigid processes also grows, but we have seen through the lens of leadership that this is unhelpful. The relevant codes refer to “comply or explain”, creating the opportunity for governing bodies to demonstrate (explain) why, after due scrutiny of the evidence and consideration of alternatives, they have exercised their collective judgement to reach a specific conclusion.

When facing rapidly changing environments which may impact their organisation both directly and/or indirectly via its extended supply chain or other partnerships, governing bodies may feel themselves under greater pressure to comply rather than to explain. But the real challenge to their governance arrangements is whether their approach is sufficiently agile to adapt to the uncertainty and volatility of the risks they face. The emphasis on governance therefore needs to focus on supporting resilience of the potentially complex partnerships and supply chain. The globalisation of markets and the speed with which the whole interconnected system adapts and responds to the numerous feedback loops introduces new and larger systemic risks and uncertainties, well beyond the reach and consideration of most decision-making. The horse meat contamination affair provides a perfect illustration of how a chain of policies and decisions created an unexpected vulnerability across an industry.

A governance approach should be adopted that helps supply chains to adapt and transform in response to new threats. This is in contrast to the traditional governance responses which lean towards seeking more control of the supply chain leading to increased costs and loss of supplier innovation.

The features of a resilient governance model are:

- governance focuses on the coordination of key relationships in the supply chain;
- new threats result in an increase in the flow of information and communication;
- whilst remaining commercially robust, power is balanced across participants within the extended supply chain;
- participants are empowered to try and resolve problems themselves, whilst providing transparency to other members;
- where new threats arise self-organising groups are encouraged to form to pursue solutions;
- governance encourages participant learning by accepting the inevitability of change and promoting experimentation;
- Participation of supply chain members is encouraged to build the trust and understanding needed to create self organising groups;
- Governance fosters a sense of joint accountability through equitable distribution of benefits.

The world of the extended enterprise is most simply characterised by its complex adaptive nature, and the combination of self-learning and self-awareness that this creates. Traditional emphases of management and governance have focused on processes that are essentially fixed. We have explored the need to shift the emphasis from management control to the empowerment created by a new style of leadership that is both inspiring and stretching. Models of governance are now following a similar pattern based on an expectation of constant learning and renewal – always striving to improve against an evolving base-line, and certainly not being satisfied with the concept of compliance, which is essentially passive.
The European Institute of Governance Awards (EIGA) has defined a model of governance that is underpinned by research evidence. It is built on a framework drawing on the self awareness and self learning of the governing body to ensure that it remains focused on the balance between creation of new value and protection of existing value, whilst assessing its overall impact – both declared through its goals and values, and undeclared through its footprint. Unlike other standards-based approaches, this model offers a common framework as a reference for the effectiveness of governance to be independently benchmarked against the rising values and expectations of a demanding combination of markets and stakeholders.

**Key messages from this chapter**

When dealing with the extended enterprise, both leadership and governance need to focus on aspects of relationships that are driven by behaviours, attitudes and values, alongside the traditional focus on action and process. Invariably, poor outcomes, lack of success and failure of governance is more likely to emerge from ineffective relationships than from weak processes.

Most of our models of organisations, management and governance were developed from a “Newtonian” view of the world that was predictable and could be well understood. The high levels of interconnectivity, rapid communication and extensive feedback loops are more akin to a “quantum” view of the world that are complex and adaptive and characterised by volatility, uncertain, complexity and ambiguity (VUCA).

In this new paradigm, command and control environments are more likely to achieve perverse outcomes, and desired outcomes are more likely to be achieved through inspired leadership that uses influence and distributes decision making widely, to create greater agility, resilience and robustness with the power to adapt.

The key characteristics of this world are clarity of purpose, curiosity that supports constant learning, and courage to live with the complexity and to harness the energy that lies within conflicting ideas to finds new ways to deal with wicked problems.

Good governance cannot be imposed through compliance with standards, but needs to be constantly revised and improved by balancing good processes with wise judgement in a constant renewal process built on valuing diversity, developing self awareness and regular benchmarking.

**References**


2. Wendell-Holmes, O. a distinguished Harvard medic, educator and pioneer - see profile in Wikipedia.


8. Peter, L. J. Peter was an educator and management theorist who is best remembered for the Peter Principle - his assertion that in large organisations, people rise to their level of incompetence.


11. Welbourn, D; Ghate, D; Lewis, J; Systems Leadership: exceptional leadership for exceptional times –Source paper 1 – Literature review, *Virtual Staff College*, October 2013 [http://www.virtualstaffcollege.co.uk/dcs-leadership-provision/systems-leadership/the-literature/](http://www.virtualstaffcollege.co.uk/dcs-leadership-provision/systems-leadership/the-literature/)


15. Welbourn, D. Leadership of innovation in the NHS - a literature review of good practice. *Innovation health and Wealth (Department of Health)*


22. McChristal, S. General Stanley McChristal held several commands in the US Army and was particularly known for straight talking. He was the Chief of US forces in Afghanistan.


