



# Leading in Complex Times

Dave Osborne and Jill Hinson

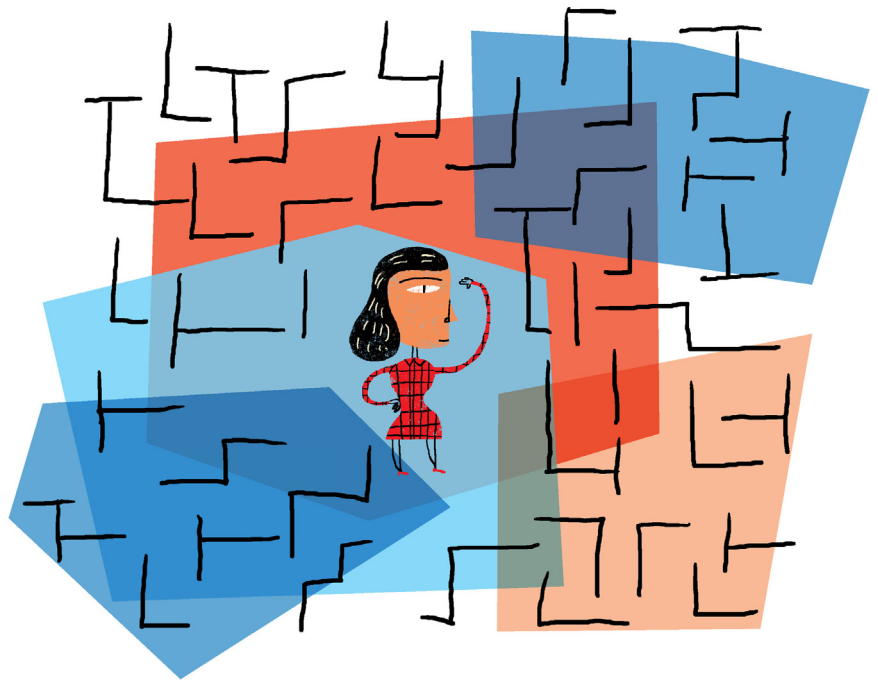
## Contact Details

NTL Institute  
1901 South Bell Street, Suite 300  
Arlington, VA 22202  
email: [editor@ntl-psc.org](mailto:editor@ntl-psc.org) [www.ntl-psc.org](http://www.ntl-psc.org)



Design : © 2011 Silverdot-ag Illustrations : © 2011 James Yang

©2015 ChangeFusion, LLC. All rights reserved.



## Leading in Complex Times

Dave Osborne and Jill Hinson

Today's environment is inherently uncertain and unpredictable. Successful organizations, however, are converting uncertainty into opportunity and growth but, to do this, leaders need new approaches to navigate successfully the increasing pace of change and complexity. Leading an organization in today's inter-connected, high-tech, globalized world is becoming more and more challenging. As information is shared anywhere and anytime, the cycle time from event to reaction is reduced. The pace and nature of change is changing. "Change is happening so fast it is hard to predict who your competitors are. Assumptions that seemed iron clad 12 months ago are obsolete today," Doug Arnold, Vice President, Neustar (Hinson & Osborne). Lessons are emerging from complexity science that inform how we can lead effectively in times of change. This article describes a leader's perspective on today's environment and the causes of today's complexity. Finally, the article suggests a mindset shift for leaders and five leadership imperatives.

### What are leaders experiencing?

Leaders in all industries are recognizing the challenge of leading in complex times. The 2010 Global CEO Study by IBM states that 79% of CEOs anticipate greater levels of complexity over the next five years. Unfortunately, only 49% of those CEOs felt their organizations were prepared to deal with the rising levels of complexity. In 2010, ChangeFusion conducted research with leaders in the high-tech industry to understand their view on the business environment. Here is a sampling of the thoughts leaders shared with us:

"We know disruptive competitors can open or close an opportunity overnight. This drives our need for constant innovation."

"The pace of change is extraordinary."

"The business environment is becoming less predictable."

"We are seeing changes in the world's infrastructure and there are huge one-of-a-kind opportunities emerging" (Hinson & Osborne, 2010).

Leaders are experiencing the challenge of unpredictability and volatility. In fact, in the 2010 IBM CEO study, leaders said, "The complexity of operating in an increasingly volatile and uncertain world is our primary challenge." Leaders are asking, "How do we stay competitive when the business environment is constantly changing?"; "How do we ensure we are poised to take advantage of the changes versus react to them?"; and "What are the leadership capabilities necessary to lead the organization?"

### What is causing the increase in complexity?

Leaders describe today's environment as a place where there is no time to plan, and where the situation changes again before the plan can be implemented. Let us look first at what is causing the complexity that leaders are experiencing.

#### IBM 2010 CEO Study

- 69% of CEOs described their environment as more volatile, uncertain and complex.
- 79% of CEOs anticipate greater levels of complexity over the next 5 years.
- Only 49% of CEOs feel their organizations are prepared to deal with the rising levels of complexity.



Complexity grows in direct relationship with connectivity (Holland). There has been exponential growth in connectivity over the past two decades fueled by the expansion of the internet and wireless technology. As connectivity grows, interdependence increases, and quick reaction times become the norm. One hundred years ago most people lived in rural areas and worked in isolation. This is a very different picture from the one we live in today. So, today there are:

- Technology Advances *leading to*
- Increased Connections *leading to*
- Increased Interdependency and diversity

**Time to reach  
audience of 50  
million:**

Radio: 38 years

Television: 13 years

Internet: 4 years

iPod: 3 years

Facebook: 2 years

Taken together, these factors create a faster, diverse, more enabled world. Let us look at one example of growth in technology advances, and the ways in which we connect. How many years do you think it took each of these technologies to reach a market audience of fifty million? Radio? Television? The internet? The iPod? Facebook? Ten years? Three years? What is your best

guess? For radio it took thirty eight years to reach a market audience of fifty million. In contrast, it took Facebook two quick years (Fisch, K & McLeod, S). Technological advances are increasing our ability to connect in new ways. Connection and interdependence increase the complexity of the environment.

### A mindset shift is needed

Complexity science provides important insights into how to lead organizations in complex times. "In the world of unknown unknowns, we can't hope to precisely predict the behavior of critical systems, and we shouldn't presume that we can manage behavior with precision either", (Homer-Dixon). These insights call into question some of our long held mental models derived from Newtonian thinking.

Leaders often rely on analysis, rational decision-making, planning and control (Stacey). MBA programs teach these skills as the basis of leadership, and fields such as Engineering, IT and Health Care typically use scientific analysis, prediction and control as their basis. While

these approaches can be effective in a stable, predictable world, they become increasingly ineffective when applied to organizations operating in an uncertain, unpredictable, rapidly changing, complex world. "We manage by separating things into parts, we believe that influence occurs as a direct result of force exerted from one person to another, we engage in complex planning for a world that we keep expecting to be predictable, and we search continually for better methods of objectively measuring and perceiving the world" (Wheatley). Complexity science encourages a shift in our mindset about change and how we lead organizations. Change, order and innovation emerge naturally from chaos and complexity under the right conditions. Importantly this change and adaptation happens without being imposed, directed or controlled by someone "in-charge" (Holland). In an environment where we cannot predict, plan, direct and control change, we can sense and influence the speed and direction of change that naturally emerges.

### Mindset Shift for Leading in A Complex Environment

Move From	Move Towards
Top down control	Building connections and local level actions
Building consensus only	Inviting and clarifying differences
Moving towards an ideal set out in the strategic plan	Moving constantly towards a better fit with the environment
Linear, cause-and-effect thinking	Noticing patterns and leveraging self-organizing potential
Centralized leadership	Unleashing the collective intelligence of the whole organization
Solving problems	Holding the container for paradoxes and tension in the system
Protecting the boundaries of the organization	Co-creating with wide ranging stakeholders/ customers
One way influence	Multi-directional influence

(Informed by Olson and Eoyang)

### The Leadership Imperative

Leadership, in a complex world, is about fostering conditions that enable self-organization, the innate power of adaptation (Goldstein). "Complexity theory suggests that





the most powerful processes of change occur at the micro level, where relationships, interactions, small experiments, and simple rules shape emerging patterns. Everything in an organization is interconnected," state Olson & Eoyang (2001). Leaders need to tap into the collective leadership potential of the entire organization. Leaders enable learning and innovation by being a champion of connectivity. They must disrupt the status quo and be comfortable with ambiguity. The following are five leadership imperatives that enable success in complex times.

**Imperative 1: Be a Disruption Creator - a leader who encourages creativity and supports the exploration of ambiguity and experimentation.** A disruption creator knows that innovation happens at the edge of chaos. When organizations become too comfortable and like-minded, they are less likely to be adaptive and innovative. According to the 2010 IBM Global CEO Study, "Leaders said they must be ready to upset the status quo even if it is successful. They must be comfortable with, and committed to, ongoing experimentation." To illustrate the concept of disrupting patterns or norms, leaders can establish a value of "obligation to dissent," where all employees are encouraged and expected to share dissenting points of view. As an example, Google is committed to allotting 20% of employee time to working on projects of the employee's own choosing. ("The Engineer's Life at Google".) Disruption can also come at an industry and product level: Apple has certainly demonstrated this principle with iTunes, iPhone and iPad. As a Disruption Creator, leaders disrupt the comfort zone allowing opportunities to emerge.

**Imperative 2: Become a Connector – a leader who builds bridges and connection across disparate parts to increase innovation and diversity of ideas.** Stacy (2010) illustrates this point when he describes the future as being constructed via present interactions; everyone is an influencer through their local interactions that create global patterns. A leader in the high tech industry shared with us how his organization applies this concept by investing time to partner with customers. During four-day conferences, the organization and its customers interact to learn about challenges in the field and develop solutions together (Hinson & Osborne). Another leader shared that he wanted to have a unified, holistic understanding of behavioral choices in the digital world. To do this, he needed an innovative method to capture data across a fragmented industry and created a two million people, global panel to build a robust user-analytic knowledge base (Hinson & Osborne). Finally, P&G's revolutionary 'Connect and Develop' product development approach leverages the principle of increasing connectivity. P&G shifted their approach from a tightly controlled and secretive internal product development process to connecting openly with external innovators and engineers globally. The result was a dramatic increase in the number of new products with reduced development times that fueled accelerated business growth. Many disruptive social movements have consciously leveraged

social media to connect the entire world to their mission. Enhancing connections accelerates the speed of ideas and mobilizes action where and when it is needed.

**Imperative 3: Convene - a leader who understands that change occurs naturally by bringing together diverse people to have dialogues about important issues.** When we convene a group of diverse people to have dialogue about an important issue they care about, we create the conditions for self-organization. Stuart Kaufman, a biologist associated with the Santa Fe Institute, studied the role of self-organization, the ability for new and emergent patterns to arise without being externally imposed. In his book "At Home in the Universe", he identifies five pre-conditions for it. "Self-organization provides a powerful new model for guiding organizational change that surpasses the hierarchically controlled and resistance-busting strategies of the past" (Goldstein). The power of self-organization has been applied to highly complex and conflicted situations over a hundred thousand times in 136 countries through an approach called Open Space Technology. Amazingly the approach always works, resulting in productive exchanges that produce innovative ideas, solutions and high levels of commitment. (Owen) As Rosabeth Moss Kanter describes, "As leadership shifts away from hierarchical decisions-at-the-top-slowly-cascading-downward, to social networks and self-organizing, knowing how to use convening power becomes critical." She provides the example of the Clinton Global Initiative (CGI) which was formed to address significant global problems through a series of centrally led projects. CGI realized that, by convening large groups of people who cared about the issues, they created more momentum by doing less. They shifted control from a top down approach to power at the local level. "It gets people who already have their fingers on the levers of change moving quickly" (Kanter). Leaders who invite others to participate in issues they care about can tap into this power of self-organization. To do this, Leaders need to let go of control and trust the passion and wisdom of the whole.

**Imperative 4: Sense Strategically - a leader who, in a chaotic environment, senses the external patterns that are emerging.** Strategic sensitivity enables an organization to be agile and adaptive, and is a key source of competitive advantage. Leaders need to find varied ways to tap into what is emerging externally. For example, one high tech leader in our study established the role of Corporate Wanderers - individuals with no formal job description, whose only responsibility was to explore possible new trends (Hinson & Osborne). In an unpredictable environment, patterns provide insight into what is currently emerging.

Strategic Sensitivity involves:

**Constant Connection with the External Environment:** continually scanning and engaging in knowledge exchanges with the external environment to spot key trends and opportunities as they emerge.



**A broad understanding of the business:** ensuring everyone understands the business context – which emerging trends may be most relevant and the need for rapid adaptation – to allow for better decision making throughout the organization.

**Internal Information Sharing:** ensuring that information is easily accessible and ‘at everyone’s fingertips’; that there is internal connectivity enabling communication of emerging trends across functions and divisional silos; and that there is an ability to transcend differences of views so that problems may be solved using knowledge and expertise across boundaries and so that the business may respond quickly to the emerging trends.

**Ensuring that the generation of new ideas and identifying evolving customer needs is everyone’s job:** involving multiple levels of employees and perspectives in the processes of strategy development and idea generation to broaden strategic sensing and maximize innovation.

**Encouraging feedback and disconfirming information:** ensuring that there are ample incentives and a culture of openness to enable employees and stakeholders to offer feedback that challenges current business assumptions (organizations can get caught in their own success).

Leaders who seek to understand these patterns are best positioned to seize opportunities instead of reacting to threats.

**Imperative 5: Stabilize - a leader who can bring a presence of calm and confidence in the midst of the anxiety and fear that accompany chaos and complexity.** John Kenneth Galbraith said: “All of the great leaders have had one characteristic in common: it was the willingness to confront unequivocally the major anxiety of their people in their time. This, and not much else, is the essence of leadership.” Emotional contagion is a well-researched phenomenon which involves the emotions of one person transferring to another person or group: emotions spread person to person. Typically this transfer is through unconscious methods of nonverbal mimicry and feedback: we automatically mimic the facial expressions, body language, speech pattern and vocal tones of others. Emotions spread for two main reasons:

- We are hardwired to mimic others outwardly – mirror neurons facilitate this.
- Through mimicking the outward displays of others, we adopt their internal state.

By maintaining a calm presence, leaders can transform the anxiety of the organization. Leaders who embodied this principle are Gandhi, Churchill, Martin-Luther King and Victor Frankl. Practices that support the presence needed to stabilize include meditation, mindfulness and other Eastern-influenced modalities. Mindfulness enables a leader to be a stabilizer.

### Closing Thoughts

Chaos and unpredictability present opportunities and threats. By letting go of the illusion of control, leaders are positioned to seize emergent opportunities. “Complex Leadership states that rather than looking to influence systems directly, Complex Leaders need to foster the conditions that enable productive, but largely unspecified, future states” (Uhl-Bien, Marion, McKelvey). This involves a mindset shift from a notion of centralized control to tapping into collective intelligence; from linear cause and effect thinking to sensing patterns and leveraging self-organizing power. Successful leaders disrupt, connect, convene, sense and stabilize. These imperatives allow leaders to leverage the power of self-organization and the wisdom of the collective.



## BIOGRAPHIES:

Jill Hinson is Managing Partner of ChangeFusion. She is a proven international business leader with 20 years of combined experience in organizational development and marketing. Jill spent nine years as an internal organization development consultant in the global financial services industry. She has also held marketing leadership positions at Nordstrom, focusing on sales promotion, advertising, new store openings, employee on-boarding, and recognition and change initiatives.

Jill holds a Masters Degree in Organization Development from American University/NTL and an undergraduate Bachelor of Business/Marketing degree from James Madison University. Jill has been called on to speak at several conferences to present on the subjects of Employee Engagement and Change. She is a Board member of CBODN and Associate member of NTL Institute for Applied Behavioral Science. She is also an Associate of the Human Systems Dynamics Institute.

Email: [jhinson@change-fusion.com](mailto:jhinson@change-fusion.com)

David Osborne, an executive at ChangeFusion, is a business leader and organization consultant with a passion for helping organizations and individuals become more effective at achieving results. Successfully leading his teams and clients through change has been the key feature of David's career.

As a business leader at Proctor and Gamble, David led the company through a global sales re-organization, and culture change initiatives. While at Nova Scotia Power, he leveraged his keen entrepreneurial skills and business savvy to build a successful business sales organization ground up again transforming customer relationships positively.

While Vice President of NTL Institute's Customized Services Group, he provided leadership development and organization change capacity building programs to organizations globally. He is a Senior Faculty member for several NTL programs.

David holds a Masters degree in Organization Development from American University/NTL in Washington D.C. and a Bachelor of Commerce Degree from Dalhousie University in Halifax N.S. He is a member of NTL Institute of Applied Behavioral Science and the Organization Development Network. He is also an Associate of Human Systems Dynamics Institute.

Email: [dosborne@change-fusion.com](mailto:dosborne@change-fusion.com)

## REFERENCES

Special Thanks – The concepts in this article have been deeply informed by the mentorship of Dr. Glenda Eoyang, founding Executive Director of Human Systems Dynamics Institute, and Harrison Owen, originator of Open Space Technology.

Capitalizing on Complexity: Insights from the 2010 IBM Global CEO Study. (2010). IBM Institute for Business Value.

Fisch, K. & McLeod, S. (2010). Globalization & The Information Age: Did You Know? Adapted by Sony BMG.

Hinson, J. & Osborne, D. (2010). 2010 Strategy, Leadership and Change Research. NVTC Workforce & Education Committee.

Homer-Dixon, T. (2002). The Ingenuity Gap: Facing the Economic, Environmental, and Other Challenges of an Increasingly complex and Unpredictable Future. NY. Random House.

Goldstein, J. (1994). The Unshackled Organization. Portland. Productivity Press.

Goldstein, J. (2007). A new model for emergence and its leadership implications, in J. Hazy, J. Goldstein, and B. Lichtensein, (Eds.) Complex Systems Leadership Theory. Mansfield MA. ISCE Publishing, pp 61-92.

Holland, J. (1995). Hidden Order: How Adaptation Builds Complexity. NY. Basic Books.

Kauffman, S. (1995). At Home in the Universe: The Search for Laws of Self-Organization and Complexity. Oxford University Press.

Olson, E. & Eoyang, G. (2001). Facilitating Organizational Change: Lessons from Complexity Science. San Francisco. Jossey-Bass/Pfeiffer.

Owen, H. (2004). The Practice of Peace. Minnesota. Human Systems Dynamics Institute.

Stacey, R. (2007). Strategic Management and Organizational Dynamics: The Challenge of Complexity. London. Prentice Hall.

Stacy, R. (2010). Complexity and Organizational Reality: Uncertainty and the Need to Rethink Management After the Collapse of Investment Capitalism. Oxon. Routledge.

The Engineer's Life at Google. Accessed on September 1, 2010. <http://www.google.com/jobs/lifeatgoogle/englife/index.html>

Uhl-Bien, M., Marion, R., & McKelvey, B. (2007). Complexity Leadership Theory: Shifting Leadership from the Industrial Ages to the Knowledge Era. The Leadership Quarterly, Elsevier, Inc, pp 298-318.

Wheatley, M. (2006). Leadership and the New Science: Discovering Order in a Chaotic World. San Francisco. Berrett-Koehler Publishers, Inc.