

# Cutter Business Technology JOURNAL

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Management, Innovation, Transformation

“Digitally-driven change is messy and unpredictable. Unpredictability unsettles everyone. Successful organizations of the future will embrace the mess – and fundamentally change their organizational culture.”

– Sheila Cox,  
Guest Editor

## Change Leadership in the Digital Era

### Opening Statement

by Sheila Cox..... 3

### A Forward-Thinking Workplace: The Key to Successful Digital Transformation

by Bill Fox..... 6

### Managing Change in Dynamic Environments: Unlocking the Power of Complex Adaptive Systems

by Roger Sweetman and Kieran Conboy..... 12

### Digital Transformation: Get All Onboard Fast!

by Hermann Ladner and Michael Kunz..... 19

### Why a Collaborative Mindset Is Critical for Digital Transformation

by David Coleman..... 28

### Transforming Change into Trust in the Digital Era

by Jagdish Bhandarkar and Namratha Rao..... 35

### Successful Digital Strategy? But What About Culture?

by Jon Ward ..... 43

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by Sheila Cox, Guest Editor

# Opening Statement

Digital transformation is not for the faint of heart. It means disrupting your company before your competitors do. It means experimenting, without any guarantee of success. It means creating something new and unproven, while sabotaging what's already working. Digital transformation means taking big risks.

Today's digital technologies are driving continuous disruption. Survival is based on an ability to sense changes early — and adapt quickly. However, most top-down, hierarchical organizations have structures and processes that attempt to treat continuous changes as discrete, one-time events. Simply put, organizations are using change management approaches that don't work with digital transformation. Most change managers are employing models of the past that apply to a well-defined, bounded change; that is, a project with a beginning, middle, and end. They often reference various three-phase models from key thinkers such as Kurt Lewin (unfreeze, change, refreeze)<sup>1</sup>; William Bridges (ending, neutral zone, new beginning)<sup>2</sup>; Daryl Conner (present state, transition state, desired state)<sup>3</sup>; and John Kotter (creating the climate for change; engaging and enabling the organization; implementing and sustaining the change).<sup>4</sup> The three-phases approach, however, doesn't work with digital transformation. There is no third phase. With digital transformation, organizations are continually living in the middle phase, where everything is ambiguous and up in the air.

Digitally-driven change is messy and unpredictable. Unpredictability unsettles everyone. Successful organizations of the future will embrace the mess — and fundamentally change their organizational culture.

## Cultural Change Is Paramount

To realize the benefits of a digital transformation, organizations need to build and maintain a culture that adapts to a continually changing landscape. Unless already on the path to building a culture that embraces

innovation and transformation, many companies prefer to adopt less effective strategies. Faced with unpredictability, volatility, and chaotic messiness, they choose:

- **Delusion.** Stubbornly believe that their customers and market are not changing.
- **Avoidance.** Consider the situation temporary and wait for everything to settle down.
- **Selectivity.** Ignore the chaos and focus on an area where they already have skills, confidence, and/or a track record.
- **Silver bullet.** Buy a product or process that promises to make everything easier and simpler.
- **Overconfidence.** Believe they can influence their environment and implement a plan that makes the future more predictable.

None of these choices will deliver long-term success. Instead, digital transformation favors organizations that choose cultural transformation. They build an adaptable culture where people recognize their limited ability to predict the future and seek opportunities that arise from the chaotic environment. They frame themselves within a culture that allows leaders to maintain their confidence and focus even when initiatives fail to achieve business objectives.

## Value-Centered Culture

When everything is in flux, people struggle. The more change they experience, the higher their stress. In this environment, effective leaders help their followers remember who they are.

Many organizations view values definition merely as a fun exercise to conduct and forget, or as a waste of time. However, when organizations are clear about their values — and continually communicate those values — they can serve as the center of all activity and decision making.

With digital transformation, some companies find that their business or industry fundamentally changes. Newspapers, for example, are no longer in the “newspaper” business. (If they are, they are going out of business.) But an organization whose purpose is “to inform the public about what matters” and holds the value of “accuracy” can change its products and services while maintaining pride of purpose.

All this puts a huge burden on the leaders of an organization. Many leaders derive their sense of purpose and value from their place on the organization chart. The org chart typically describes products, services, and geography — all of which might change in digital transformation. Thus, a leader’s very identity can be threatened by new business models. Only leaders with a strong commitment to organizational purpose and values will be willing to risk their place in the political landscape for uncertain gain. Yet quite a few large, older organizations are populated with middle managers whose focus is on avoiding risk and counting the weeks until their retirement.

## Nurturing New Ideas

Innovation cannot be achieved without new ideas. Unfortunately, many managers consider themselves the source of all useful ideas. When ideas are encouraged, an organization gets more ideas. When ideas are discouraged, an organization gets fewer ideas. Most organizations subtly, yet consistently, discourage ideas. This discouragement takes many forms. When a manager likes an idea, he may give positive feedback to the person presenting it, and then enhance or tweak or change the idea. Unfortunately, the subordinate no longer has ownership of the idea, as it has become the manager’s creation. And sometimes, a manager likes an

idea so much, she “co-opts” the idea as her own and fails to give credit to the author. Or a manager may observe that the “new” idea has been tried before, and didn’t work. Or simply disapprove or reject the idea.

Digital transformation will not occur if all decisions must be made by top managers. First, decisions cannot be made in a timely manner. Second, people who are not involved in the decisions will often subtly resist the projects and programs, causing them to fail. And, of utmost importance, if top management is involved in operation decisions, they have no time or energy left to focus on strategic tasks.

Many leaders avoid delegation out of concern that the wrong decisions will be made. If the management of an organization is not capable of making operational decisions, it needs to be trained, coached, or replaced. (And grooming management talent is one of those strategic tasks that has often received low priority from executives.)

## Letting Go of Control

Digital transformation means imagining and applying new business models. Consider, for example, new companies like Airbnb, Spotify, or Uber. They have an advantage when it comes to digital transformation; they don’t have to contend with an entrenched bureaucracy and a strong set of rules, policies, and procedures. They have limited controls and operate in a flexible manner. In these business environments, innovation can thrive.

In the book *Corporate Lifecycles*,<sup>5</sup> Ichak Adizes says that organizations that have achieved high growth and high profitability have learned to strike a balance between flexibility and control. Organizations start as highly flexible and implement controls as they mature. When control becomes more important than flexibility, an organization begins to die. Digital transformation requires flexibility to nurture innovation. For mature organizations, this means letting go of control. They must learn to delegate decision making to lower levels and empower teams.

To realize the benefits of a digital transformation, organizations need to build and maintain a culture that adapts to a continually changing landscape. New organizations need to treasure their flexibility. Older organizations need to change to create an environment where innovation can flourish. Implementing new management practices takes a year or more. Shifting an organizational culture takes several years. The time to start is now.



**Upcoming Topics**

**Business Technology Trends and Predictions, 2018**  
*Cutter Consortium*

**AI: Trends, Opportunities, Challenges**  
*San Murugesan*

**Disciplined Agile: The Roadmap to Business Agility**  
*Scott Ambler*

## In This Issue

We are pleased to have nine authors share their change leadership insights in this issue. We begin with an article by Bill Fox that focuses on the importance of forward thinking. Fox observes that “in today’s world that’s full of turbulence and unknowns, the need for better answers and questions, insights, and wisdom is becoming ever more pressing.” He believes that this kind of thinking — forward thinking — creates an environment where digital transformation occurs organically. Fox describes 13 foundational forward-thinking abilities, along with three approaches that help create a forward-thinking workplace.

Next, Roger Sweetman and Kieran Conboy examine the interdisciplinary theory of complex adaptive systems (CAS) and how this theory can be useful in digital transformation. They define nine properties of CAS theory, such as a constant state of flux. For each property, Sweetman and Conboy describe the challenges and opportunities for digital transformation. Finally, they present CAS-based practices that enable change management.

In our third article, Hermann Ladner and Michael Kunz highlight the challenge of resistance to change. They believe that leaders charged with digital transformation often ignore or underestimate employee resistance. And sometimes when they recognize resistance, they write it off as irrational behavior. Ladner and Kunz explore this and other misconceptions that stand in the way of effective digital transformation. They propose an approach for involving and engaging employees in the change.

Next, David Coleman discusses three areas affected by digital transformation: customer experience, operational processes, and business models. Successfully transforming each area depends on a collaborative mindset. Coleman defines this mindset and shows how alignment of purpose and commitment to the task go hand in hand with collaboration. He illustrates the importance of a collaborative mindset in transforming processes that touch customers, internal processes, and the overall business model.

Many classic change management models are not up to the challenge of guiding continuous change. Jagdish Bhandarkar and Namratha Rao observe that these models fail to consider the significant dimensions of technology and innovation. They recommend developing key performance indicators to track all dimensions of change, which will enable an organization to constantly improve its capability to implement change.

Rao and Bhandarkar present a case study where a community bank “transformed the initial negative perceptions of change to a positive practice.”

In our final article, Jon Ward emphasizes the significance of enabling change. He believes that a culture of experimentation is required for digital transformation to succeed. Ward identifies important elements of an experimental culture, such as encouraging innovation and self-directed teams. He also specifies senior leadership behaviors as well as corporate governance approaches needed to build and reinforce an experimental culture.

As Charles S. Lauer famously said, “Leaders don’t force people to follow, they invite them on a journey.” We hope that you find these articles helpful in your journey of leading the organizational changes associated with digital transformations.

## Endnotes

- <sup>1</sup>Lewin, Kurt. *Resolving Social Conflicts: Selected Papers on Group Dynamics*. Harper & Row, 1948.
- <sup>2</sup>Bridges, William, and Susan Bridges. *Managing Transitions: Making the Most of Change*. Addison-Wesley, 1991.
- <sup>3</sup>Conner, Daryl R. *Managing at the Speed of Change*. Villard Books, 1992.
- <sup>4</sup>Kotter, John P. “Leading Change: Why Transformations Fail.” *Harvard Business Review*, March–April 1995 (<https://hbr.org/2007/01/leading-change-why-transformation-efforts-fail>).
- <sup>5</sup>Adizes, Ichak. *Corporate Lifecycles: How and Why Corporations Grow and Die and What to Do About It*. Ichak Adizes, 1988.

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THERE CAN BE NO LASTING CHANGE UNTIL WE CHANGE

# A Forward-Thinking Workplace: The Key to Successful Digital Transformation

by Bill Fox

We live in a world of constant whitewater, where ever-increasing change, complexity, and disruption are the new normal. Many organizations struggle to adapt, using traditional ways of introducing and managing change, so what can we do to respond to this new reality with greater impact?

New times and challenges call for innovative forward thinking. Ultimately, we need to discover a better way forward by shifting the focus from managing change to living and working together in new ways. These new ways must allow us to sense changes early and adapt swiftly and intuitively. And, at the same time, they should leverage the innovative new digital technologies that are causing the need for change in order to help us connect and communicate more easily and engage in deeper conversations.

It's time to recognize that managing change, following best practices, and working harder — and even smarter — are no longer enough and are failing us. These methods all keep us stuck living in the past. Stepping into the future requires us to interact with each other with an open mind, listening to every voice — ready to discover whatever is there for us to see and giving us the freedom to act upon what we discover.

“Change — real change — comes from the inside out,” says Stephen Covey, best-selling author of *The 7 Habits of Highly Effective People*.<sup>1</sup> Change starts with us. There can be no real and lasting change until we change.

This article highlights how to create a forward-thinking workplace culture that triggers and establishes transformation from the inside out.

## We Are All Being Challenged in Today's World

So many people and organizations today are struggling to adapt and create the conditions that get people out of

their comfort zones. Many organizations are striving to be more innovative and engaged so they can fully respond to and benefit from the plethora of digital advances available today. Digital transformation heralds great promise and many benefits, but those will only happen if transformation truly occurs and lasts.

At Forward-Thinking Workplaces, we have hosted an ongoing global exploration and expansive conversation with 55 leaders and executives over the past 18 months. Out of those conversations (and my own work), many surprising insights and new approaches have come forth.

Most striking are the insights that point to the true nature of the challenges we face. These challenges are rarely mentioned or even addressed at most organizations, although they will undermine any transformation initiative; for example:

- Many people still can't say what they really think, feel, and act on every day.<sup>2</sup>
- People react largely and mostly based on their circumstances or own internal processes because we don't realize how the mind works; those who do understand are impacted by circumstances to a lesser degree.<sup>3</sup>
- There is a lot of emphasis on finding and aligning purpose, but the issues of status, power, competition, and so on, are ignored and still remain.<sup>4</sup>
- We're not aware that almost 99% of our life runs on autopilot, which keeps us stuck living and working in the past.<sup>5</sup>

The need has never been greater to embrace transformation in innovative new ways to deal with the many very real and difficult challenges we face. Transformation has little chance of lasting success when we pretend these challenges don't exist.

## Why Do We Keep Implementing Change in the Same Ways?

We only need to look back at the history of workplace transformation and employee engagement over the past 30 years to realize that something is very wrong. Everyone is talking about change and the need to transform, but we keep repeating a familiar pattern.

Over my career, I have witnessed so many workplace improvements and transformation initiatives that didn't work out or last. I equate this to going to the edge of a 50-foot cliff and jumping when all you've witnessed are others ahead of you jumping away. As a result, you don't see what they did before they jumped, what the landing area looks like, or what happened when they landed.

Many others share my experience. In a recent interview with Tom Thomison, cofounder of HolacracyOne, he describes how his frustrations with traditional industry change methods led him to innovations in the workplace:

I tried, like most consultants and most business owners and entrepreneurs, with all the usual things — incremental improvements like business process reengineering, total quality management, higher-performance teaming, self-directed teaming, Lean systems, Agile systems, and Agile development.... Inevitably over about 18 months, all that goodness ... withered away and died.<sup>6</sup>

It's time to recognize the challenging place we find ourselves in today. Doing what everyone else is doing and what you've done before often doesn't solve the real problem, is resisted by many (often for good reasons), and rarely survives a change in company management or an unforeseen event.

## So Where Does This Leave Us?

Evolving the status quo in the traditional ways no longer works for most organizations. It's no longer enough to work "harder, or even smarter,"<sup>7</sup> says world-renowned transformational coach Michael Neill. When so many of us are doing just that, isn't it time to explore what else might be possible?

Now imagine those explorers of earlier times and even recent times who have ventured out beyond the horizon in search of higher aspirations. They sailed off into

uncharted waters with an open mind — ready to discover whatever was there for them to see. They didn't know what they would find, but they intuitively knew they'd experience and discover something new in their search for a better life.

Now we too find ourselves in uncharted and turbulent waters with many unknowns. Exploring is a way for us to step into the unknown to discover the better answers and better questions, insights, and wisdom that we need to move forward in the face of today's challenges.

## Discover Forward Thinking

According to the *Cambridge Dictionary*, forward thinking is "the act of thinking about and planning for the future, not just the present."<sup>8</sup> Most organizations today were formed and still operate based on industrial age thinking. We rely largely on command and control and the separation of people and functions into parts or groups where each part is optimized. But in these times of rapid change and disruption, old-school thinking and ways of organizing ourselves are failing us. Today's times call for adopting a more forward-thinking mindset and approach that considers the present as well as the future.

*Exploring is a way for us to step into the unknown to discover the better answers and better questions, insights, and wisdom that we need to move forward in the face of today's challenges.*

We not only need to organize ourselves in new ways but also learn how to operate more like martial arts masters. Masters don't know what they will face next, but they have trained themselves to be present and prepared. They are confident that they can handle whatever comes their way. We find ourselves facing similar challenges and need to do the same.

Learning how to be more forward thinking is key to helping us discover how to live and work together in these new ways. Forward thinking creates a foundation for building a culture that can thrive today and tomorrow.

At Forward-Thinking Workplaces, we've identified 13 abilities (see Table 1) that are vital in becoming more forward thinking. This list suggests new ways of thinking and being that help people to be more authentic, aware, collaborative, and co-creative. Together, they bring an expanded sense of self and new ways of connecting that enhance our ability to interact

with each other. Using these abilities, we become more active participants in co-creating a workplace where our voice matters, everyone thrives and finds meaning, and change and innovation happen naturally.

These 13 components didn't arrive in a flash of insights or from a scientific study, but rather from my own

Ability	Transformational Benefit
1. Power of perspective and reflection	<ul style="list-style-type: none"> <li>Discover new possibilities and solutions.</li> <li>Be more creative, innovative, and effective.</li> </ul>
2. Allow the real you to show up	<ul style="list-style-type: none"> <li>Make a greater contribution at work and all areas of life.</li> <li>Be happier and live with greater meaning and impact.</li> </ul>
3. Crossing the threshold	<ul style="list-style-type: none"> <li>Get on a path to live your purpose and full potential.</li> </ul>
4. Power of intention	<ul style="list-style-type: none"> <li>Co-create a better workplace that is more to your liking.</li> </ul>
5. Powerful questions	<ul style="list-style-type: none"> <li>Open up new possibilities and solutions.</li> <li>Respond more easily and confidently to challenges.</li> <li>Use questions more consistently and effectively.</li> </ul>
6. Thought leadership	<ul style="list-style-type: none"> <li>When we express our truth, the world begins to change around us.</li> </ul>
7. Presence power point	<ul style="list-style-type: none"> <li>Work more harmoniously and with less drama.</li> <li>Be a better listener.</li> <li>Work more co-creatively, with increased creativity and innovation.</li> </ul>
8. Jump out of the zombie box	<ul style="list-style-type: none"> <li>See and eliminate hidden chains that hold us back.</li> </ul>
9. Discover dialogue	<ul style="list-style-type: none"> <li>Have better conversations and more meaningful relationships.</li> <li>Harness collective intelligence.</li> </ul>
10. Leading ourselves	<ul style="list-style-type: none"> <li>Lead quiet change at any place/any level to create a better workplace.</li> <li>Inspire others.</li> </ul>
11. Appreciation and purpose	<ul style="list-style-type: none"> <li>Unleash untapped power in yourself and others.</li> </ul>
12. Living inside -> out	<ul style="list-style-type: none"> <li>Gain a clearer mind, be less reactive, and push for new insights that result in greater performance, creativity, and innovation.</li> </ul>
13. Living from a new worldview	<ul style="list-style-type: none"> <li>Move beyond industrial age thinking to think and act based on current understanding of how the world works.</li> </ul>

Table 1 – 13 foundational forward-thinking abilities.



evolutionary growth and work over the past 17 years. An intention to have an impact on how organizations transform set in motion a series of life-changing events and experiences that revealed how to be a more forward-thinking and conscious participant in the unfolding of my own life and work. My life became my vehicle for learning.

What's most significant about these changes and experiences is that they helped me connect and work with people in a new way. I found myself having more expansive conversations that helped propel changes and transformations that would occur naturally and almost effortlessly. Consequently, unexpected new insights, questions, and wisdom emerged in my work and conversations. Many leaders (and readers) of my work have noted that my interview collections have created a platform for new insights and wisdom. My conversations became a vehicle for discovering new and better solutions with others by creating a space for something new to emerge. By becoming more forward thinking and learning how to live and interact in new ways, people become more active and co-creative participants in the unfolding of their work and life.

In today's world that's full of turbulence and unknowns, the need for better answers and questions, insights, and wisdom is becoming ever more pressing. Creating a culture that helps people become more forward thinking and conscious is a necessary first step. It's where real transformation must begin. There is enormous power — power that is largely undervalued and underpracticed — in helping people learn how to impact their consciousness to create change. As One Solution cofounder Mara Gleason has pointed out:

There's really no juice for the squeeze in doing because doing is just a natural ripple out of a state of consciousness. And ... anytime someone takes a leap in their own personal understanding of their own mind, or has their own shift in consciousness, they just do differently without even realizing it and then things change.<sup>9</sup>

## Uncover the Forward-Thinking Workplace

An effective strategy for introducing forward-thinking ideas and approaches is to introduce multiple new perspectives from inside and outside the organization. Such an approach helps ignite new thinking and uncovers new solutions. Leadership expert and author David Marquet explains:

As I've gotten older (and wiser) I've learned that most topics have multiple valid perspectives. A diversity of opinion allows me to see sides of an issue I'd missed, allows my organization to be more resilient when one approach isn't working, and allows a more nuanced implementation of initiatives.<sup>10</sup>

My interviews with more than 100 leaders, executives, and top practitioners over the past seven years have revealed some surprising insights. These insights and strategies came about through a deliberate intention to uncover what's behind the work of successful leaders and organizations.

*By becoming more forward thinking and learning how to live and interact in new ways, people become more active and co-creative participants in the unfolding of their work and life.*

Initially, this work occurred through the interview series *5 Minutes to Process Improvement Success*,<sup>11</sup> which asked industry leaders and practitioners for their best improvement strategy. That series was then followed by the current series, *Exploring Forward-Thinking Workplaces*,<sup>12</sup> which asks a series of six questions (see Table 2) intended to explore how we can create workplaces where every voice matters, everyone thrives and finds meaning, and change and innovation happen naturally. Typically, we often ask additional clarifying questions, but each interview follows the standard six-question framework.

While interviews with industry executives and thought leaders are common and often reveal fascinating insights, what has been unique in this case is the approach. An intention is held for each interview to uncover the deeper strategy or wisdom behind a particular approach. We ask reflective questions that don't favor one approach or philosophy over another.

The result is an interview that captures innate knowing and wisdom. The interviews uncover perspectives that typically are not heard, solicited, or encouraged in a business setting. At Forward-Thinking Workplaces, we have found it useful to leverage these conversations, insights, and overall themes to trigger engaging conversations that uncover their own more workable solutions. As encode.org partner Dennis Wittrock explains:

1	How can we create workplaces where every voice matters, everyone thrives and finds meaning, and change and innovation happen naturally?
2	What does it take to get an employee's full attention and best performance?
3	What are people really lacking and longing for at work?
4	What is the most important question that leaders and managers should be asking employees?
5	What is the most important question employees should be asking leaders and managers?
6	What is the most important question we should be asking ourselves?

Table 2 – The six questions from the *Exploring Forward-Thinking Workplaces* interview series.

It's a beautiful opportunity for people to sense what's next. The very act of being asked elicits knowledge you didn't know you had. The very act of being listened to is very valuable to create a new context and let new insights emerge and let these nuggets come to the surface.<sup>13</sup>

## Create the Forward-Thinking Workplace

In our increasingly connected and fast-changing world, it has become more difficult to have quality conversations. As our digital technologies advance, we find ourselves more and more reliant on technology to communicate with each other. It's so easy and fast to connect with almost anyone by sending a message or email. However, the downside from all these easy and fast ways to connect is that the quality of our conversations has suffered. Many of these new technologies are not allowing us to engage in deeper conversations that connect us human to human. We've lost touch with the enormous power of having connected conversations.

Perhaps no one has been more influential in helping us understand the power of conversations to impact organizational success and the quality of our work than Judith Glaser, CEO of the Creating WE Institute. In her book *Conversational Intelligence*, Glaser writes:

To get to the next level of greatness depends on the quality of our culture, which depends on the quality of our relationships, which depends on the quality of our conversations. Everything happens through conversations!<sup>14</sup>

My work has demonstrated again and again the power of connected conversation, where we're listening to each other from a state of not knowing. The person speaking feels free to express their innate knowing; listeners truly listen and open themselves up to learn something new. Everything starts and happens through a conversation. It opens the door for us to uncover innovative new solutions and to unlock our shared wisdom. Unfortunately, most of us are not having conversations in a way that unlocks this hidden potential.

The "Exploring Forward-Thinking Workplace Conversation Canvas"<sup>15</sup> offers a blueprint for engaging people in higher-quality conversations to create something that works for everyone. An anonymous quote we received at Forward-Thinking Workplaces validates this point:

This conversation invites and allows whole beings to show up; like whole food, whole beings are more nutritious to the system they exist within.<sup>16</sup>

## We See the World We Describe

In conclusion, it's important to highlight a crucial principle that runs through the forward-thinking approach: "We see the world we describe."<sup>17</sup> American Leadership Forum Founder Joseph Jaworski explains:

It is through language that we create the world because it's nothing until we describe it. And when we describe it, we create distinctions that govern our actions. To put it another way, we do not describe the world we see, but we see the world we describe.<sup>18</sup>

So many conversations in today's workplace focus on content, not context. We start with problems or decisions and the conversation quickly devolves into "my way or your way" instead of new possibilities and solutions that work for everyone. We're all so busy running around with our heads filled with content that we don't take time to engage in a deeper conversation. Our autopilot keeps us choosing the least-action pathways. We often take the easy and known path.

We have all largely overlooked our opportunity and ability to collectively create something better. The forward-thinking approach equips us all to have the bigger conversation to solve our most vexing workplace challenges and create a workplace where every voice matters, everyone thrives and finds meaning, and change and innovation happen naturally.

## Endnotes

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# Managing Change in Dynamic Environments: Unlocking the Power of Complex Adaptive Systems

by Roger Sweetman and Kieran Conboy

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While organizations and managers have always had to adapt, today there is a rarely questioned assumption that our “now” is more ephemeral, transient, and volatile than ever before. Organizations and executives must navigate unprecedented levels of change and complexity and leverage rapidly emerging technologies to survive and thrive in a seemingly never-ending environment of dynamism and acceleration. Technologies such as blockchain, artificial intelligence, cloud, Internet of Things, and even simpler alternatives like social media, can initiate the destruction of existing business models, organizations, and markets — and the creation of new ones — in the blink of an eye. Change is incredibly aggressive, often instant, and even a small change can have massive, disproportionate effects beyond any predictions.

Even radical approaches to change management, such as business process engineering or Lean, assume there is a desirable endpoint (however temporary) toward which change is directed. However, what if change happens so continuously that no fixed endpoint exists for any initiative, but instead organizations must constantly change, not just to succeed, but even to survive? In such an environment, each change is dependent not just on organizational strategy, but also on the external environment as well as on every other radical change happening in the organization. The difference between change in a traditional stable environment and a modern hyperdynamic environment is illustrated in Figure 1. Clearly, traditional approaches to change management will be insufficient and a new perspective is required.

This hypercompetitive, ultra-dynamic environment is analogous to the reality faced by most systems and species in nature. In nature, apparently robust systems can be disrupted by a single new invasive species, while other systems can retain their resilience despite a sustained assault. The behavior of such systems can be explained by the interdisciplinary theory of complex adaptive systems (CAS). CAS theory has been used to

examine phenomena as diverse as the climate<sup>1</sup> and Agile software development.<sup>2</sup>

Based on an international study of experts, this article describes how we can use CAS theory to support organizational change. Drawing on nine properties of CAS, we present high-level practices to enable change management, focusing on the challenges and opportunities arising from a CAS perspective.

## Research Study

This article draws on a major government-funded study involving a diverse panel of international experts, including CAS scholars from leading universities and research institutes, change management practitioners from global technology and consulting firms, as well as public sector organizations.<sup>3</sup> Interviews with academics and practitioners were conducted in parallel to identify CAS-based change practices and how they might be applied to enable organizational change. Many of the academics had researched issues around organizational transformation, and some practitioners had already used CAS theory to bring about organizational change. Therefore, the findings in this article are experiential as well as theoretical. These experts helped us identify practices that enable organizations to harness the power of CAS to bring about dramatic, sustainable change.

## CAS Theory

CAS theory is an interdisciplinary approach based on the common principles of systems comprising diverse interacting agents that behave as a single entity capable of responding to changes in the environment. The system-level behaviors of a complex adaptive system emerge from the interactions between the agents and, in turn, regulate the system through positive and negative feedback loops. CAS theory has broad application and can be used to explain anything from how termites

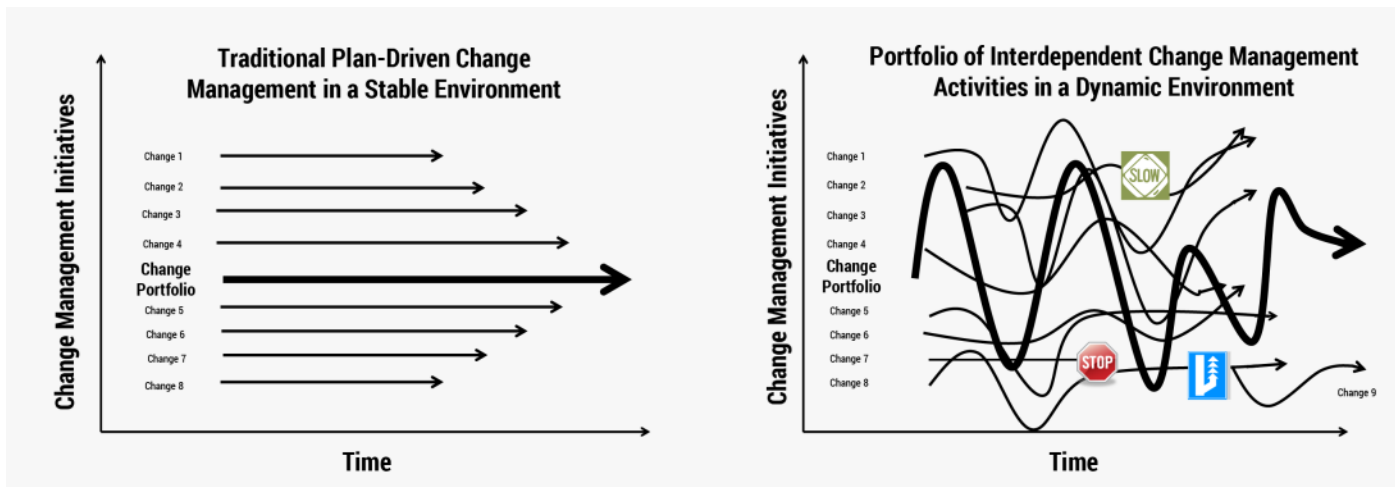


Figure 1 – Change management in stable vs. dynamic environments.

can build colonies as complex as human settlements to how tiny changes like the introduction of a new animal into an environment can result in unpredicted transformations in the surrounding habitat, and even in mass extinctions.

In business, CAS theory is particularly appropriate in fast-changing areas where multiple stakeholders have a high degree of autonomy and conflicting objectives. For example, the Cynefin framework, developed by David Snowden and Mary Boone,<sup>4</sup> conceptualizes the organization as a complex adaptive system and recommends appropriate management approaches depending on the complexity of the organization and the state of its environment. Senior managers at Ericsson have attributed the success of the organization's Agile transition to its use of the Cynefin framework and CAS theory.<sup>5</sup>

While CAS theory is generally adapted to suit the problem for which it is being used to address, many high-level properties have been identified that are common across disciplines. In this article, we discuss nine of the most important of these properties, including the following:

1. **Complex systems are in a state of constant flux.** This dynamism occurs because the environment of any given complex adaptive system comprises many other complex adaptive systems, each of which changes and all of which affect change in each other.<sup>6</sup> Because of this dynamism, it is not possible for a complex adaptive system to exist in a stable state. Instead, it must constantly change.<sup>7</sup> Stability is considered death for CAS.

2. **The system must have an open boundary with its environment.** This is essential for resources to be imported and waste exported. However, it also means that agents can move back and forth between the environment and the complex adaptive system, making it vulnerable to disruption.<sup>8</sup>
3. **There is no centralized controller in a complex adaptive system.** Because agents have a degree of autonomy, no single component can dictate the collective behavior of the system.<sup>9</sup> Rather than relying completely on centralized control, the ability to influence behavior is dispersed and decentralized throughout the system.
4. **The performance landscape of CAS differentiates between behaviors and enables natural selection** by acting as a multi-objective fitness function that can be used to exclude agents that are poorly adapted to the needs of the environment.<sup>10</sup>
5. **Relatively simple behavioral rules facilitate the coordination and self-organization of large numbers of autonomous entities** without increasing management overhead.<sup>11</sup> For example, tens of thousands of birds can fly in perfect formation and a "Mexican wave" occurs spontaneously in a sports stadium.
6. **The system-level properties are irreducible to the behavior of any one agent or part of the system.**<sup>12</sup> This means the impact of a change in any one area must be considered across the whole system. It also means that the relationship between cause and effect can be hard to identify and the system will behave unpredictably.

7. **Multiple attractor states can exist.** Attractor states are relatively stable states that the system is drawn back toward when perturbed.<sup>13</sup> The attractor state is determined by which behaviors are optimized and tends to be very resilient. Systems can be trapped in a poorly performing attractor state and generally only transition to a new state when a major disturbance radically alters behavior. This can be considered analogous to the burning platform metaphor.<sup>14</sup>
8. **CAS are path-dependent.** They have a memory of their history, which acts as a knowledge repository distributed throughout the system, constraining the future development of the system.<sup>15</sup> For example, two organizations with identical goals and resources will be completely different because of their history.
9. **Positive and negative feedback can maintain the system at the “edge of chaos,”** enabling it to be both resilient and creative.<sup>16</sup> Positive feedback amplifies the behavior that creates it, and negative feedback dampens it.

*An open organizational boundary enables employees to rotate between organizations in reciprocal arrangements, embedding new practices in their host organization and bringing back ideas for change.*

## Change Management Support

Based on interviews with experts, we discuss the implications of each CAS property described above for the change management process and identify high-level CAS-based practices to support change management.

### Constant Environmental Change

Constant environmental change presents a serious challenge to organizations. The environmental models an organization uses for decision making can become out of date. For example, one expert explained how changing energy prices could render technology adoption models obsolete, or how an increased incidence of extreme weather events could affect the sustainability of some agricultural sectors.

Organizations may fail to realize that the desirability of certain apparently successful traits may change as the environment changes. While preparing quarterly reports, one organization discovered how just a small change in the cost of electricity caused customers to abandon a flagship product for a less profitable, more energy-efficient substitute. However, by this time it was too late to act.

At the same time, rapid change creates opportunities, as competitor strategies can also become outdated, and new opportunities arise for organizations prepared to embrace change. The experts argued that *organizations must constantly update their environmental models and switch from episodic to continuous reviews and adjustments of strategy.*

### The Open Boundary

In nature, open boundaries facilitate symbiotic relationships between different organisms, enabling both to thrive, often by feeding off each other’s waste. While an open boundary is essential for an organization to import resources, it can have both positive and negative implications for the change management process.

Greater exposure to the environment makes it easier for employees to leave the organization, making it vulnerable to a mass exodus of key staff during periods of prolonged change. However, the open boundary also presents an opportunity to keep staff engaged, as it enables them to engage in boundary-spanning activities with other organizations. This means that organizations can establish a symbiotic relationship with each other where their employees are exposed to “better” practices in other organizations and the need for change.

Our research suggests that an open organizational boundary *enables employees to rotate between organizations in reciprocal arrangements, embedding new practices in their host organization and bringing back ideas for change.*

### No Overall Control

Unlike in traditional, centrally controlled systems, no single agent can control the behavior of the other agents in a complex adaptive system. While some argue that this means the management task of control is inconsistent with CAS, control theory acknowledges that control is exercised through informal control modes as well as through formal modes, and managers in a complex adaptive system must influence the behavior

of the individual agents rather than rely on formal control.

While presidents, CEOs, and boards of directors set policies, these are only enacted if the rest of the organization follows through on them. In many cases, employees require autonomy and creativity to translate high-level strategic goals into operational tasks. However, agents, especially some humans, may feel safer with control. For example, it is difficult to release animals raised in captivity. Similarly, the notion of control is deeply ingrained in people.

The need for control has two dimensions. For some, there is a need to be in control, while others need to be controlled. However, without reliance on formal control, an organization can only embrace change if it has effective mechanisms for collective decision making. Just as tens of thousands of bees can decide in minutes on a new site for a hive, organizations need to be able to coalesce around the right strategy, regardless of who proposes it. Therefore, organizations seeking to effect change must *overcome managers' need to control and employees' need to be controlled by providing effective mechanisms for collective decision making.*

## The Fitness Function

While all organizations have some form of a performance reward system, our research suggests that these systems often fail either to acknowledge what employees really value or to reward the behaviors the organization desires. The actual criteria against which employees measure themselves, or by which they perceive they are measured, can be dramatically different from the formal performance criteria of the organization. These informal criteria act as an unofficial fitness function against which employees measure their behavior.

For example, many employees may value their “social status in the canteen” more than a letter of commendation, or a team bonus that they may feel entitled to regardless of individual effort. Furthermore, employees often believe that the criteria against which they are judged are opaque or inconsistent. As a result, they can genuinely struggle to identify which behaviors they need to change for them to be promoted or rewarded. Instead, they may perceive that “political behavior” is rewarded and, as a result, may act in a dysfunctional manner in an attempt to secure a promotion. However, when the performance management system is transparent, and employees see exactly why people are being

promoted, they can choose to embrace the behaviors desired by the organization, or leave.

It is therefore possible for the organization to bring about huge organizational change by *creating a transparent performance management system that recognizes both what the organization needs to achieve and what employees truly value.*

***Organizations need to evolve simple shared rules to govern interactions and enable self-organization, facilitating the scaling of change, without increased management overhead.***

## Simple Rules

The experts suggested that one of the biggest barriers to the rapid enactment of change is an overly complicated, centralized, formal decision-making process. Complicated rules associated with such processes often disincentivize employees from attempting to bring about change. Furthermore, huge amounts of management overhead are required to manage interactions between different departments. Good ideas are often abandoned rather than be subjected to bureaucratic examination, or the opportunity for change passes before an idea gets the go-ahead.

The process of moving resources around the organization is often cumbersome and leaves employees feeling bruised or punished. However, if the enactment of ideas or the exchange of resources is governed by simple shared rules or heuristics, teams can self-organize without management overhead. While these rules may not result in short-term optimization, they prove extremely effective over prolonged periods of time.

Our research suggests that organizations need to *evolve simple shared rules to govern interactions and enable self-organization, facilitating the scaling of change, without increased management overhead.*

## Irreducibility

Because the interactions between just a few employees can have nonlinear effects that propagate through the system, it can be hard to ascertain the direct causes of

certain outcomes. Indeed, one expert argued that “cause and effect are separated over time and space in complex systems.”

For example, the introduction of the cane toad to Australia displaced indigenous predators that fed on crocodile eggs, resulting in an increase in the crocodile population. This, in turn, led to an increase in the number of fatal crocodile attacks on humans. The result of an interaction often takes place much later or in a different part of the organization and, therefore, the same interactions repeated later, may produce a still different reaction.

*Change can happen if managers experiment with different criteria by which success is evaluated and provide employees the time and resources to engage in continuous exploration, experimentation, and adaptation to identify more desirable states.*

While this irreducibility creates challenges for managers, it also provides an advantage, as other organizations find it hard to identify and replicate successful strategies. Irreducibility has two important implications for change management. First, employees and employers cannot know in advance, with certainty, what their actions will lead to. This means that the benefits of any individual change may be impossible to predict or evaluate. Second, “best practices” that work effectively in other organizations or other parts of the same organization may not work when applied in a new context. Instead, the experts argued that desirable organizational behaviors emerge from repeating the right individual behaviors again and again.

Our research suggests that change is achieved by *focusing on getting the right behaviors in the short term and evaluating outcomes in the long term.*

### **Multiple Attractor States**

The existence of multiple attractor states creates one of the biggest challenges to bringing about effective change. Attractor states are like valleys in a mountain

range. Just like a climber stuck in a valley, an organization in a particular attractor state may not even be aware that other more desirable states exist. Even if it is aware that other states exist, it may struggle to escape from its current state. Furthermore, the more the organization attempts to optimize itself for the state it is in, the harder it becomes for it to escape from that state. This means that well-intentioned individual employees may be contributing to the prevention of radical change by focusing on the local optimization of clearly articulated goals, ignoring opportunities to transition to a better state.

However, while many natural systems tend to transition to a new state only in response to a major environmental perturbation or shock, the experts argued that social systems with creative, autonomous employees are capable of endogenous change. Change can happen if managers *experiment with different criteria by which success is evaluated and provide employees the time and resources to engage in continuous exploration, experimentation, and adaptation to identify more desirable states.*

### **Path Dependence**

Change is normally focused on the future, so perhaps it is not surprising that while managers attempt to learn from previous mistakes, they often underestimate the effect past changes and decisions have on employees. What is surprising is that many employees resistant to change may not have been in the organization when the previous problematic change occurred. Instead, they are influenced by an organizational memory or “lore” distributed throughout the system in the form of employees’ memories and legends that “are shared around the water cooler.” This memory is passed on through stories and observation. If used positively, this memory becomes a fantastic resource that can be drawn upon to ensure successful strategies are repeated, and mistakes are learned from.

The experts suggest that marking successful changes with celebrations and ceremonies creates positive memories. Furthermore, when memory is likely to prevent the achievement of change, it can be overcome by bringing in a sufficiently large number of new employees at one time to dilute the existing memory. Our research suggests that *organizations must seek to shape and utilize this shared memory so that it enables rather than restricts future change.*



## Positive and Negative Feedback

Our research highlights that many organizations struggle to administer feedback or even to understand what it is. Feedback occurs when the output of a process results in a change in the behaviors that caused it. If the feedback increases the behavior, then it is positive feedback. If it decreases the behavior, it is negative feedback.

This is fundamentally different from praise and criticism. For example, praise may indicate to an employee that he or she has achieved his or her goals and that it is time to focus on something else, and criticism may be taken as an indication that greater effort is required. Therefore, praise can act as negative feedback and criticism as positive feedback.

Furthermore, organizations can be too dependent on either negative or positive feedback. Too much negative feedback results in the system becoming atrophied, like a nonfunctional bureaucracy, and too much positive feedback may result in the organization spiraling out of control (e.g., financial bubbles, where increasing returns create a positive feedback loop by drawing more and more investors into an already overheated market). Therefore, it is essential that managers and employees be trained to give and receive feedback effectively. In natural systems, this is known as homeostasis, where positive and negative feedback are kept in balance to maintain healthy but manageable levels of growth. Similarly, our research suggests that organizations engaged in change management must *learn to use positive feedback to encourage the changes that are proving effective and negative feedback to suppress the changes that are not desirable.*

## Conclusion

This article introduces CAS theory and describes how organizations can use it to inform change management. It identifies nine high-level CAS practices, focusing on how to mitigate against the risks of a complex environment and take advantage of the opportunities posed. These practices highlight the importance of constant strategy reviews, flexible structures that facilitate rotation and experimentation as well as informal decision making, simple rules, a transparent performance management system that effectively uses rewards and sanctions, the shaping of organizational memory, understanding multiple time horizons, and the effective use of feedback.

CAS theory provides managers with a different way of looking at the messy reality of organizational life. The simplistic, mechanical view of many existing change management approaches ignores the organic nature of organizations. However, we must acknowledge that not all organizations are equally complex. Organizational complexity exists on a spectrum ranging from public sector organizations configured as bureaucracies to software houses engaged in Agile development. This means that the appropriateness of the practices identified in this study may depend on the individual context of each organization. The complex, path-dependent nature of organizations means managers must experiment to find the most effective way of implementing these practices.

## Acknowledgments

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## Endnotes

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<sup>14</sup>The burning platform metaphor describes how commitment to change is enforced by a critical event that renders the status quo unsustainable. The metaphor describes how workers on a burning oil rig are left with no choice but to make a dangerous jump to attempt to escape certain death by fire.

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# Digital Transformation: Get All Onboard Fast!

by Hermann Ladner and Michael Kunz

Many organizations are undergoing digital transformation — business development through the intelligent application of opportunities made available by digital technologies. Through digital transformation, organizations reassess their underlying purpose and reevaluate and redefine their business model. They change the way in which they generate added value, how they operate, and how they will evolve from the ground up.

Digital transformation always begins and ends with people and is emotionally charged. Different perceptions of a situation, complex relationships, resistance, and uncertainty often make it difficult to deal with emotions in a constructive way. In the background, hidden conflicts arise, which further inhibit and cloud the underlying reasons for transformation and make it even more difficult to address tough changes effectively. Here we present a five-step plan to turn those affected by digital transformation into passionate supporters who will obtain better results more quickly and more efficiently and with less effort.

In this article, we tear down the prevalent misconceptions standing in the way of digital transformation. In the process, we replace each misconception with new forward-thinking viewpoints. These, in turn, are the keys to the behaviors that harness the organization's collective intelligence, which gets the digital transformation rolling, quickly bringing everyone onboard. The process presented here has been put into practice in several real-life initiatives. It utilizes emerging digital technologies to make change measurable and more predictable, mobilizes available resources efficiently, minimizes productivity loss, and increases the speed and effectiveness of change. This helps ensure intended benefits are realized to their full extent and support the delivery of sustainable solutions.

## Serious Misconceptions Can Overshadow Digital Transformation

To those charged with implementing a digital transformation, there is a tendency to dismiss people who oppose the transformation. It is assumed that they are

“resistant” to change, and their behavior is perceived as irrational and problematic. The following harsh conclusions are made: either these employees get their act together and support the transformation effort — or they must be removed.

Digital platforms such as LinkedIn, XING, and Taleo make it relatively easy to access highly qualified candidates who meet the needs and requirements of a digital transformation. This might create the illusion that it is more effective to quickly get rid of the old workforce and replace it with new staff members; in essence, make a fresh start with willing participants. But when employees perceive that colleagues considered resistant to change are easily and without hesitation replaced, they fear that their boss won't hesitate to replace them, too, for any number of reasons. It's no wonder then that employees start to put their own interests first and change employers when the opportunity comes along. This goes hand in hand with the overall decline in the loyalty employees feel toward their employers in the current business environment. In general, changing your employer every couple of years is perceived as a “positive” career turn. Thus, a downward spiral in loyalty (guided by often-faulty thoughts) is set into action.

This perceived resistance has not been examined in depth. Even those who wish to pursue a further understanding of their staff members' attitudes can't find a practical way of doing so. Influenced by the limited technologies of the last century, the assumption is that an organization-wide survey with open-ended questions cannot be evaluated without an unreasonable amount of effort. Thus, a lot of work is put into developing long lists of “perfectly” formulated checkbox, multiple-choice questions. These types of surveys require quite a bit of mental effort and often lead to “survey fatigue.” Indeed, after the *n*th question, respondents often just randomly select an option because they are too tired to think about which option actually best reflects their opinion! This greatly reduces the value of the feedback collected.

The widespread image that decision makers have of themselves as being those who must know everything

and make all the decisions also no longer fits the new “digital reality” (i.e., the need to become more agile or nimble). An agile or nimble organization must learn to delegate decision making to the lowest level possible.<sup>1</sup> Very few people think of taking full advantage of the collective intelligence hidden within their organization. More often, they hire strategy consultants. However, those consultants selectively interview employees who fit into the perceived context of their strategic work. Frustration later arises when employees see their ideas, often out of context, in the consultants’ glossy reports.

Unfortunately, many managers quickly return to their prior “typical” management viewpoints after they introduced a digital initiative. In general, they look at their viewpoints too favorably. They tend to believe that employees support their efforts and endorse their viewpoints fully. These same managers are unaware of the discontent and opposition within their workforce. Sometimes, focus groups or sounding boards are put in place to stay in tune with the pulse of the organization (discussed more later in this article). However, these attempts also fail because the representatives of these groups often surround themselves with like-minded people, which leads to a bias filter, with the true perception of employees being left behind. Figure 1 shows four common misconceptions that stand in the way of digital transformation.

## Changing Perspectives: A Thorough Examination of Misconceptions

In the following sections, we critically examine these four misconceptions and develop new perspectives that make a big difference when it comes to digital transformation.

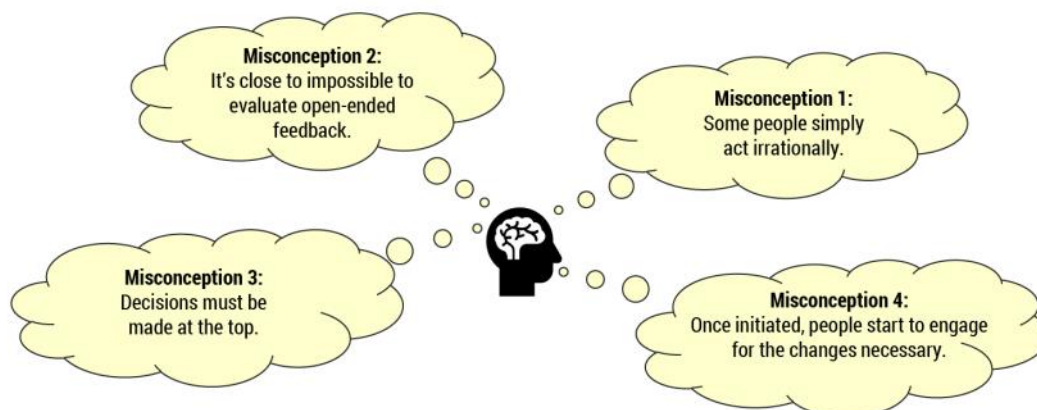


Figure 1 – Four misconceptions that stand in the way of digital transformation.

### Misconception 1: “Some People Simply Act Irrationally.”

To understand the behavior and mindset of others, it is important to first deduce what makes them act and behave the way they do. Dismissing misunderstood behavior as irrational is simply irresponsible. Based on proven, forensic evidence, no person on earth exhibits a given behavior or commits a certain act without a “plausible” reason, even if the so-called plausibility is only obvious to that person. Research in this area goes back to the early 20th-century work of psychiatrist and philosopher Karl Jasper.<sup>2</sup> In his book *General Psychopathology*, Jasper was the first researcher to define the three main criteria that define being delusional:<sup>3</sup>

1. **Certainty** — held with absolute conviction
2. **Incorrigibility** — not changeable by compelling counterargument or proof to the contrary
3. **Impossibility or falsity of content** — implausible, bizarre, or patently untrue

These three convictions are often present to some extent in employees who oppose digital transformation. Yet, based on straightforward logic, at least as management sees it, most people affected should see no reason for opposition when an organization decides to take advantage of digital opportunities. However, all too often, those affected believe that digital transformation spells the end of their jobs! For example, with the introduction of computer-aided design (CAD), everyone assumed that technical drawers would soon be obsolete. However, technical drawers were needed more than ever to draw designs for robot designers. Their job placement didn’t change, just their job profile did. More often than not, jobs were not lost because of



thousands of impacted people, and then expediently evaluate the collected responses.

### ***Misconception 3: “Decisions Must Be Made at the Top.”***

There was a time when this notion was fully justified. The environment was not as dynamic, and decisions were made by the generals back at headquarters. Their decisions determined whether a war was won or lost.

In today’s business world — one that is dynamic and characterized by relationships — conditions change so quickly that central decision-making mechanisms are too sluggish. Relevant intelligence emerges at all points of interaction. The sales employees have a different perspective than the onsite service technicians or the call center employees, and all those perspectives are important.

Only those leaders who can understand all the various individual viewpoints and merge them into one common viewpoint will win over the hearts and souls of all involved. These leaders can create an environment where effective decisions are made at all levels — decisions are supported by all and are quickly implemented. During this process, everyone involved provides insights. These insights lead to new individual viewpoints. Thus, harnessing collective intelligence in the decision-making process results in a common, stable platform from which an organization can take charge of its future.

### ***Misconception 4: “Once Initiated, People Start to Engage for the Changes Necessary.”***

As suggested earlier, focus groups and sounding boards are often set up to support digital transformations from a change management point of view. When it’s considered impossible to conduct organization-wide surveys and evaluate answers to open-ended questions, focus groups are the best-available option. However, selected members have their own biases and tend to unconsciously filter the feedback they collect. They tend to lean on like-minded people within the organization. The result is a self-confirming and overly positive picture of the progress of the digital transformation. Therefore, it comes as no surprise that management quickly returns to its typical management perspective (an overly positive way of looking at the digital transformation effort).

However, by calculating the CES, it’s possible to provide relevant reports online to decision makers to establish a robust indicator that measures engagement with the ongoing digital transformation. At Life, we measured the CES of approximately 100 initiatives involving more than 25,000 people throughout the change lifecycle. This information is available in EDOWeb, an online performance-support tool (discussed more fully later in the next section) used at Life to benchmark the CES of any initiative in digital transformation. This promotes engagement for change across all levels of the organization and motivates everyone to take responsibility for change engagement. In initiatives supported by the Improve Change Engagement (ICE) process, we observed the following: because everyone can access the CES and see how his or her department develops compared with other departments and/or companies, they start to take responsibility for change engagement. Indeed, the surveyed people appreciate that their opinion counts, and they directly see how their feedback is used to improve the digital transformation efforts. Furthermore, the surveys can be used to keep track of how change engagement evolves.

New forward-thinking viewpoints, summarized in Figure 3, have a reciprocal relationship to one another. People who assume that everyone acts based on a plausible reason, even if the plausibility is not immediately apparent to others, will give their best to understand individual viewpoints, merge them into one, and get all involved onboard.

## **A Proven Procedure to Manage Digital Transformation**

As shown in Figure 4, an effective procedure for managing digital transformation along the lifecycle of change with its five phases (identify, define, execute, realize, sustain) consists of five steps:

1. Harness collective intelligence.
2. Establish baseline through the CES.
3. Identify disengaged people and get them onboard.
4. Improve change engagement.
5. Monitor ongoing change.

The ICE process is the focal point of this procedure and is supported by an application in EDOWeb; EDO stands for “Effective Development of Organizations.”<sup>5</sup>

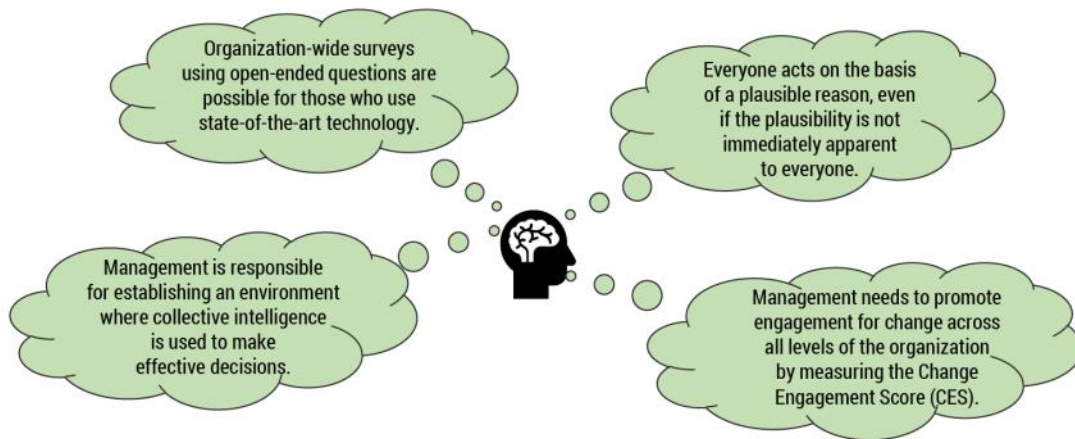


Figure 3 – New forward-thinking viewpoints.

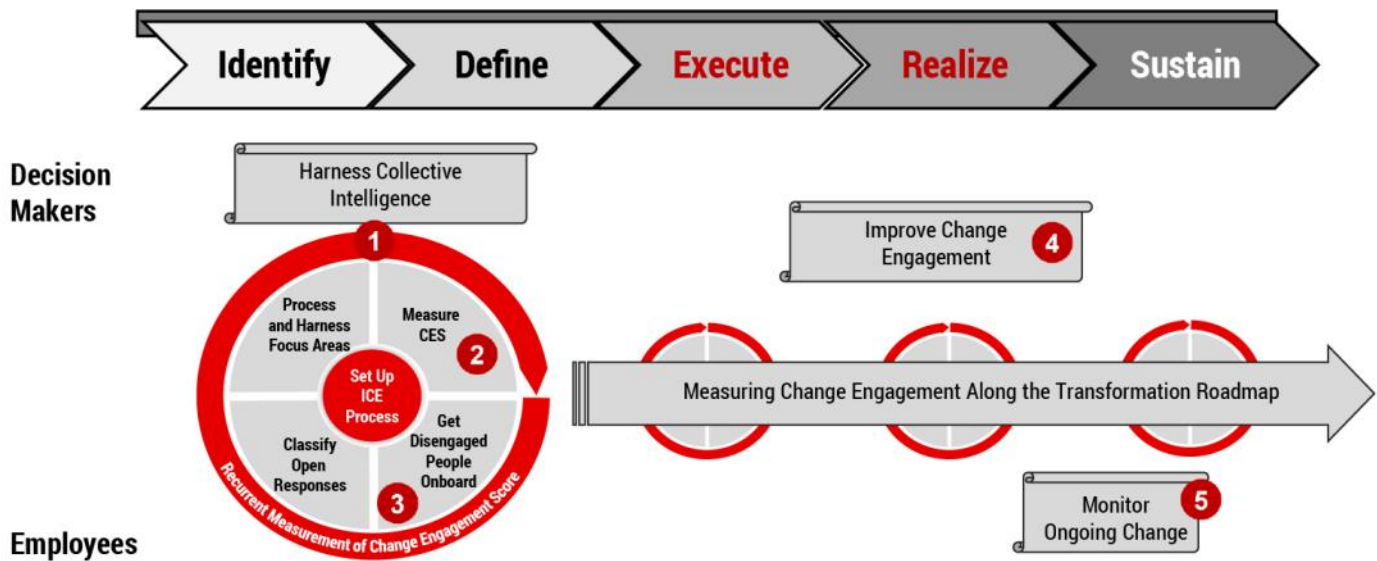


Figure 4 – Five-step digital transformation management procedure.

EDOWeb is an online performance-support tool for EDO champions who are trained in at least one process of the EDO method (e.g., ICE). The latest digital technologies (e.g., pattern recognition and AI) support the entire workflow of the digital transformation — from the initial state (baseline measurement) to recurring measurements. Moreover, this process allows survey participants to indicate whether their responses should be treated anonymously. Overall, EDOWeb makes it possible to conduct an unbiased survey of all employees using only a few open-ended questions with a reasonable amount of effort. This is how managers can measure true sentiment using the CES, collect actionable top-of-mind feedback, and minimize both the effort required by respondents to complete the survey as well as the analysis effort.

The ICE process supports the entire lifecycle of change and quickly onboards those affected. The process does the following:

- Establishes a baseline for change engagement and serves as a benchmark instrument for digital transformations.
- Identifies disengaged people and makes it possible to onboard them immediately. Once identified, disengaged people can be brought into the change initiative conversation and their objections can be identified and addressed. (Keep in mind, however, that respondents can choose whether their responses are treated anonymously; but even with anonymous respondents, you can bring pertinent opinions to the discussion table.)

- Captures information on existing fears connected to the advancing digitalization and provides more concrete approaches for dissolving them.
- Harnesses collective intelligence and provides ideas on using best practices from emerging technologies to more effectively meet the purpose of the organization. This happens regardless of position and/or preconceived ideas.
- Monitors the development of the CES over time and initiates corrective measures as required.
- Identifies possible barriers to change and suggests target-oriented measures to promote success factors and reduce barriers.
- Promotes learning from one iteration of a digital transformation to the next.

### Step 1: Harness Collective Intelligence

An ICE survey consists of a maximum of five questions: one quantitative question to measure the CES and four open-ended questions to identify the following:

- Existing fears regarding the advancing digitalization
- Perceived opportunities accompanying the use of digital technologies
- Success factors for change and measures to ensure success
- Barriers to change and measures to reduce these barriers

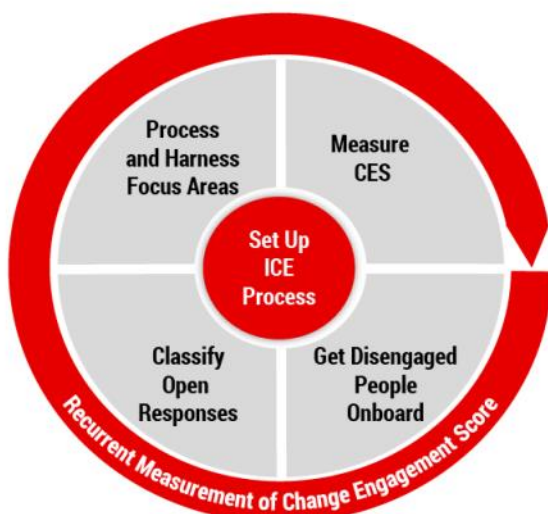


Figure 5 – Harnessing collective intelligence via the ICE process.

Open-ended questions substitute tiring and prefabricated multiple-choice questions that often culminate in self-fulfilling prophecies. Through the ICE process, individual viewpoints are merged into a collective viewpoint. This happens by first connecting one person's statements with another's, then understanding the interconnectedness of those thoughts. Unconscious bias is made conscious, and collective intelligence is harnessed (see Figure 5).

### Step 2: Establish Baseline Through the CES

The most effective question to measure engagement with digital initiatives is: how confident are you that the digital initiative will improve the results? Figure 6 shows how the CES is calculated using the responses to the sole quantitative question of the ICE survey. (Note: neutral responses are not included in the CES calculation. These responders are not enthusiastic about change. However, their answers to the open-ended questions are fully considered.)

Typically, the CES is a robust indicator to monitor engagement with digital transformation. It is measured using previously defined milestones; that is, in setting up the roadmap for digital transformation, it is decided early on when to measure the baseline for the CES and at which events (milestones) to remeasure it. The measurement happens with the quantitative question. The development of the CES over time is an effective indicator of how the digital transformation initiative resonates with those affected.

### Step 3: Identify Disengaged People and Get Them Onboard

A critical evaluation of the answers provided to the open-ended questions can yield reasons behind the results. Here we refer to the answers where people explain why they answered the quantitative question the way they did. Using the rules of logic unlocks the door to the reason behind the assumptions. As stated earlier, this makes the unconscious conscious and is the key to merging individual viewpoints and harnessing collective intelligence. This effect can be achieved often; indeed, our database shows hundreds of documented situations where this happens. However, sometimes the results reveal that a person realizes he or she does not fit with the team or its current path along the digital transformation effort. They then mutually agree with management to leave the team. As harsh as this may sound, it is likely best for all involved parties.



## Step 4: Improve Change Engagement

A multi-level classification of the responses to the open-ended questions provides concrete indications on how to increase engagement with digital transformation. A multi-tiered classification system of open feedback provides management with the right guidelines. Closer analysis results in appropriate interventions and will help avoid a one-size-fits-all approach. This way, management will know what is important. Managers quickly get an idea of how to increase the degree of engagement of those impacted by change and what is already influencing their engagement in a positive manner. This significantly increases the level of engagement for digital transformation from one measure to the next. Figure 7 uses a real-life project to illustrate what's possible within three months as a result of evaluating answers to open-ended questions and implementing suggested measures.

## Step 5: Monitor Ongoing Change

Repeatedly measuring the CES illustrates the development of digital transformation along the change curve. This can be illustrated organization-wide, or it can be broken down into departments, locations, or other relevant dimensions. This forms the basis for effectively monitoring progress and taking corrective actions (see Figure 8).

## Conclusion

Once common misconceptions are replaced by new forward-thinking viewpoints, the managers responsible for an organization's digital transformation are ready to drive that digital transformation. They change their behavior (i.e., move past the belief of viewing progress in an overly positive manner) and quickly bring everyone onboard with the digital transformation initiative. To successfully do so, management must do the following:

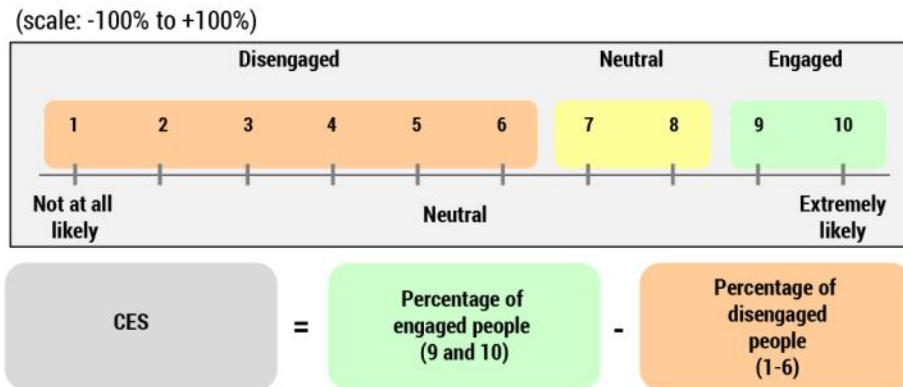


Figure 6 – Calculating the CES. (Source: Life AG.)

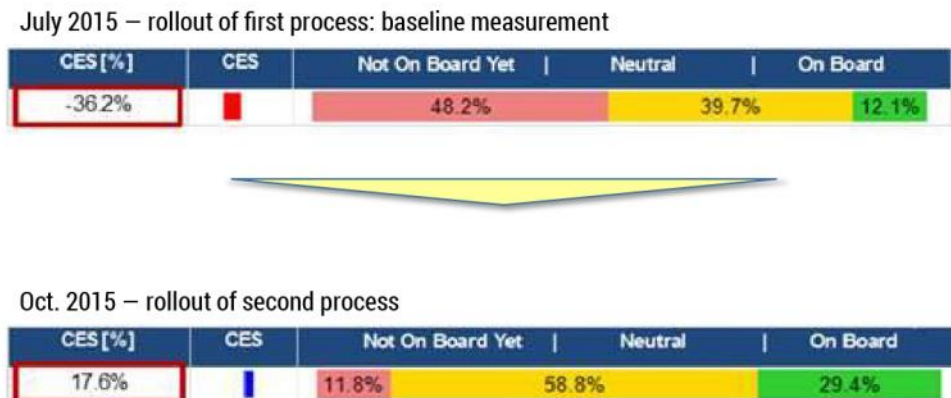


Figure 7 –The CES climbed in three months from -36.2% to 17.6%. (Source: Life AG.)

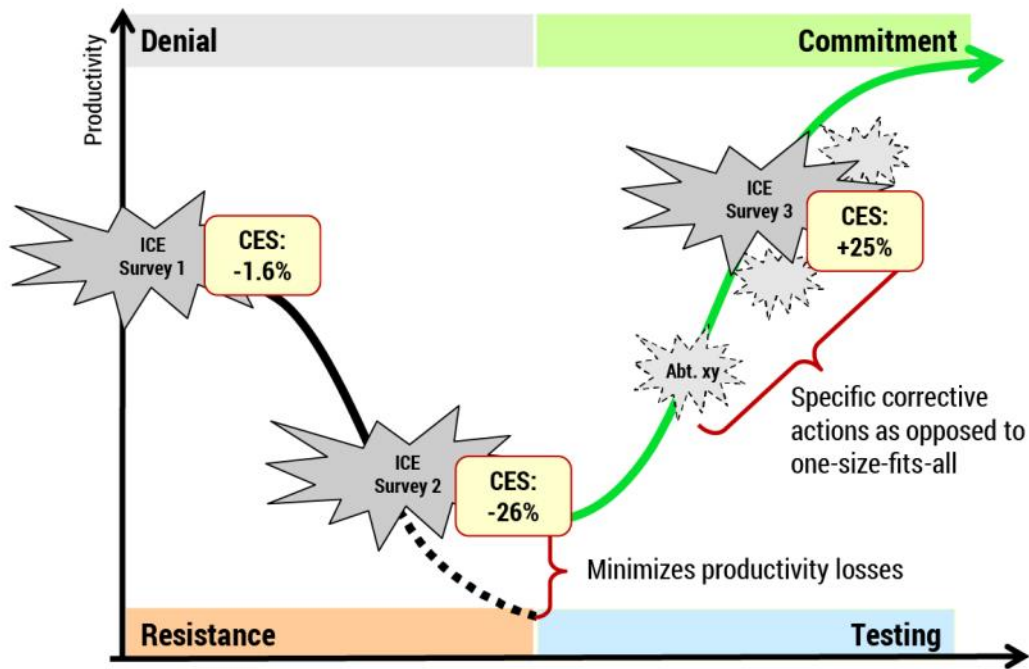


Figure 8 – Development of the CES over time. (Source: Life AG.)

- Put themselves in the shoes of those impacted and decode their viewpoints.
- Run organization-wide surveys using open-ended questions and evaluate them thoroughly.
- Harness collective intelligence at all levels to make effective decisions.
- Measure the CES, ranging from -100% to 100%, along the change curve.
- Establishes a baseline to effectively monitor progress
- Harnesses collective intelligence as input to determine the digital strategy
- Identifies disengaged people so that efforts can be made to get them onboard quickly
- Improves change engagement during the Execute to Realize phases. This:
  - Improves engagement with digital transformation from one iteration to the next
  - Promotes an environment where everyone learns from one another
  - Helps the organization emerge stronger from change
  - Improves the adaptability of the entire organization
- Measures the CES along the entire lifecycle of change. This:
  - Provides those responsible for digital transformation with insight into what extent the strategy permeates the organization

This drives a new culture — a culture where the approach to digital transformation is continuously being improved. An organization that follows the five-step procedure outlined in this article will figure out what works and what doesn't work. This organization will improve the organizational change management approach from one initiative to the next. Consequently, this culture shift will increase the consistency of organizational change management. Maturity will increase as well. Everyone takes responsibility for change engagement and learns what makes their organization tick.

In summary (see Figure 9), the five-step digital transformation management procedure:

- Surveys all employees with open-ended questions during the Identify to Define phases. This:

Common Misconceptions	New Forward-Thinking Viewpoints	Changed Behavior
Some people simply act irrationally.	Everyone acts on the basis of a plausible reason, even if the plausibility is not immediately apparent to everyone.	Decision makers put themselves in the shoes of those impacted and decode their viewpoints.
It's close to impossible to evaluate open-ended feedback.	Organization-wide surveys using open-ended questions are possible for those who use state-of-the-art technology.	Change makers run organization-wide surveys using open-ended questions and evaluate them thoroughly.
Decisions must be made at the top.	Management is responsible for establishing an environment where collective intelligence is used to make effective decisions.	Decision makers harnesses collective intelligence at all levels to make effective decisions.
Once initiated, people start to engage for the changes necessary.	Management needs to promote engagement for change across all levels of the organization by measuring the CES.	Management measures the CES, ranging from -100% to 100%, along the change curve.



**If you are able to understand individual viewpoints and merge them into one, and win over the heart and soul of all involved, you will make effective decisions that are quickly implemented and supported by everyone.**

Figure 9 – Substituting common misconceptions with new forward-thinking viewpoints leads to changed behavior.

- Helps project and change managers improve implementation
- Allows those impacted to design the change, making them passionate supporters

The five-step procedure presented in this article allows organizations to mobilize all their forces in turbulent times, minimize productivity loss resulting from change, speed up implementation, and ensure that desired results are fully achieved in a sustainable manner.

*Hermann Ladner has been mastering the lifecycle of change for more than 18 years and sees himself as a bridge builder, connecting past and new paradigms. He provides support to people and organizations, enabling them to emerge stronger from turbulent times. In his work with a broad range of organizations, Mr. Ladner helps decision makers at all levels and assists managers with projects from initiation to implementation, allowing them to effectively achieve aspired results. He also acts as a trusted advisor for the Diplomatic Council of the United Nations and is the founder of the Ladner institute for endurance (Life). Previously, he managed complex, global projects at AT&T for several years. Mr. Ladner is the author of several publications and speaks regularly at conferences. He holds a graduate degree in electrical engineering from Graz University of Technology and a master's degree in economics from the University of St.Gallen. He can be reached at [hladner@life-ag.ch](mailto:hladner@life-ag.ch).*

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## Endnotes

<sup>1</sup>Ladner, Hermann. *Enduring Organization*. A + O Des Wissens, 2005.

<sup>2</sup>"Karl Jaspers." Wikipedia ([https://en.wikipedia.org/wiki/Karl\\_Jaspers](https://en.wikipedia.org/wiki/Karl_Jaspers)).

<sup>3</sup>Jaspers, Karl. *General Psychopathology*. Reprint edition. Johns Hopkins University Press, 1997 (originally printed in 1913).

<sup>4</sup>Ladner, Hermann, et al. *Life Guide: Emerge Stronger from Turbulent Times*. Life — Ladner institute for endurance AG, 2016.

<sup>5</sup>Ladner et al. (see 4).



# Why a Collaborative Mindset Is Critical for Digital Transformation

by David Coleman

According to Wikipedia, “Digital transformation is the change associated with the application of digital technology in all aspects of human society.”<sup>1</sup> For the purposes of this article, we focus on digital transformation in business organizations.

Digital transformation does not just involve adopting new technologies (collaborative or not), but also changing how we work, what we do, how we provide value, how the journey of the customer evolves, and so on. I have heard the analogy that digital transformation today is equivalent to what the Internet was to business in the 1990s. In some sense that is true, but I think a better way of looking at digital transformation is as a second-order effect of the initial Internet revolution. The problem is, when the first-order effect happens, it is very difficult to predict what the second- or third-order effects might be and how they might manifest.

*With digital transformation as a second-order effect of the Internet that will affect all aspects of work, it is vital to know just what digital transformation is and what changes it may bring about.*

To take an example from the past: when people rode horses for transportation, the initial revolution (or first-order effect) was the switch to cars, which could go much farther and faster than horses. A second-order effect of this (which probably no one could have imagined as they were driving some of the first cars in the US) was the US freeway system. Once you had a car, you needed a place to drive it. A third-order effect was the emergence of shopping malls. You needed highways so lots of people could get to the shopping malls. I am sure some of the early US car drivers, or even manufacturers like Ford, did not envision shopping malls in their future.

With digital transformation as a second-order effect of the Internet that will affect all aspects of work, it is vital to know just what digital transformation is and what changes it may bring about. The next section briefly describes the key components of digital transformation as an overview.

## The Second-Order Effect of Digital Transformation

Looking in more detail at digital transformation as a second-order effect of the Internet, we can break it down across the three major areas that it will transform: customer experience, operational processes, and business models. Each of these three areas comprises three parts (for a total of nine factors that affect digital transformation), which I describe briefly below. Each part also illustrates the importance of communication and collaboration in digital transformation.

### Transforming Customer Experience

Digital transformation has had its greatest impact on customer experience. The three parts of transforming customer experience include customer understanding, top-line growth, and customer touchpoints.

#### Customer Understanding

This is not only about promoting your brand more effectively through social media; it is also about creating online communities to build loyalty. Not only has everything gone mobile, but digital interactions are taking over face-to-face interactions. As an example, my endocrinologist sees me twice a year by teleconference, but insists I come into the office at least once a year.

Consequently, delivery methods for services are changing, sales methods are changing, and customer data is used both in personalization of services and to

offer customized packages with customer service built in. Many leading organizations are developing new analytics that help them understand the customer better. When I go to Amazon's site, for instance, my last order always comes up first, followed by my frequently ordered items. I usually receive any order I make the next day, but I can get groceries delivered the same day, and packages may one day be delivered by drone.

## Top-Line Growth

One study shows "how digitization can significantly hurt incumbent firms in many industries — depleting as much as half the revenue growth and one-third of earnings before interest and taxes (EBIT) growth of companies that neglect to embrace digital innovations."<sup>2</sup> More sophisticated tools and technologies are replacing both paper and retail outlets, face-to-face meetings are giving way to videoconferencing, and online workspaces and chat are eliminating status meetings altogether. Technology is being applied in new ways every day, and at a pace that makes it hard to keep up. But keep up we must, not only to aid internal interactions but also to keep pace with ever-evolving customer needs.

## Customer Touchpoints

Customer service is the main way most companies interact with their customers. Look at how Comcast turned around its support reputation through @ComcastCares on Twitter,<sup>3</sup> or by having customers go to the online community first, before contacting support. If I am having trouble with software, the company's customer support makes an appointment with me and then, with my permission, will take over my computer to fix the problem. Smartphone linking, geolocation-based ads, and augmented reality are all being used to improve the customer experience.

## Transforming Operational Processes

Although transforming the customer experience is the most visible manifestation of digital transformation, transforming internal processes through digitization, worker enablement, and performance management can also show great benefits.

Companies have started to realize that it is not enough to focus just on the customer, but instead they need to digitize their own internal processes or be left behind. Zenefits,<sup>4</sup> one of the companies taking the drudgery out of human resources (HR) by automating more of the

standard HR forms (vacation requests, sick days, etc.), and other companies like it, are digitizing HR and making it more self-service. Consequently, HR staff can instead focus on, for example, leadership training, new analytics, how to engage a gig workforce, and developing a growth path for employees — thus adding new tools to worker enablement and performance management.

One company that has taken a new approach to the worker economy is CollabWorks,<sup>5</sup> through its work as a service (WaaS) workforce optimization technology. WaaS is a management framework software tool and as such simplifies and improves the role of management. The software allows you to digitally quantify both the work and the worker. All work is broken down into services, and then each service is assigned a value and a priority. You indicate what percentage of a full-time equivalent (FTE) you require for each service, then you rate the service's relative value and the talent level needed to perform the service. The talent required per service is calculated based on the attributes required to perform the service, such as years of direct experience, skills, and adaptability.

WaaS quantification enables an organization to determine which services matter most and to shift appropriate talent toward those services. The framework is designed to better align the right person with the right work to optimize value. Individuals are asked not only to describe the primary services they provide to customers, but also to suggest improvements and additional services they desire to perform. The service data from individuals can be rolled up into any project or group where the FTE distribution of services can be measured and modified based on customer needs. WaaS is scalable to organizations of any size.

CollabWorks management believes that by 2025:

- Millennials will comprise the majority of the workforce.
- All work will be managed as services, with each service provider focusing on serving customer needs.
- The value exchange between the provider and the customer represents a market exchange.
- Of the *Fortune* 500, 80% are expected to adopt work marketplace models.<sup>6</sup>
- Early adopters of management frameworks will increase workforce value and produce a sustainable competitive advantage.

- A shared workforce (all types of workers) will be the norm.
- More effective use of talent will be not only a strategic advantage, but an imperative.

Improving productivity requires a new way of thinking about work; that is, all work can be described in the form of services (moving data from one database into a report is a task; ongoing development and population of these reports is a service). Each service a person performs can then be correlated to a level of value. The relative value of each service can be further quantified by using attributes such as the experience and creativity required to perform the service.

CollabWorks creates three “buckets” of service value. The X bucket represents a core of basic, repetitive service, while Z-level service requires the most skill and experience. Y-level service falls between the X and Z buckets. If X-level people are paid \$50K/year, Y-level people are paid \$100K/year, and Z-level people are paid \$150K/year, then of course you want Z-level people doing mostly Z-value work.

## Process Digitization

Process automation can enable workers to move from repeatable work (X work) to a greater focus on strategic work (Z work). The lower-value, more-repeatable X services can be automated, allowing workers to focus on higher-value work requiring innovation and creativity. Paint manufacturers, apparel makers, and even new car makers like Tesla have all shifted repetitive processes to robotics or digital design processes, cutting the time to market by up to 30%.

## Worker Enablement

Because of the level of complexity of work today, hardly anyone does a project on one’s own. Research done by my company, CSI (Collaborative Strategies, Inc.),<sup>7</sup> in 2015, about some of the challenges around collaboration for workers, shows that most workers (no matter what size the organization) are juggling two to three projects at any one time. This often means that an individual’s work has been virtualized, where the work process is separate from the work location. This virtualization has also helped drive “open office” initiatives as well as “remote worker” initiatives. Collaboration and

networking tools (over 2,000 today) allow anyone to talk to colleagues anywhere.

A good example is an interaction I had with a sales manager. I asked him what was keeping him up at night. He explained to me that his sales team normally delivered about 10 proposals a month, with each proposal representing an average of about \$100K of work. His team’s overall win rate was about 70%, but lately had dropped to 50%. When I asked what the specific problems were, he pointed to his salespeople’s difficulty in getting timely access to experts and a corresponding late delivery of proposals to the prospects. The sales manager did not see this as a collaboration problem, but after putting in place the right collaborative tools and processes, he reported a few months later that the close rate had increased to 80%.

## Performance Management

The greater availability of transactional data now allows decisions to be made based on real data. When there are huge amounts of data, artificial intelligence (AI) and machine learning (ML) are being used to help with pattern recognition within that data, giving management new insights into both internal and customer-facing processes. ML, in particular, provides an algorithmic engine to process large amounts of data. ML helps to see patterns by displaying the data graphically, so humans can start to see relationships and patterns in the data.

Let’s look at your morning commute as an example. If you live near a large city, you have probably noticed your commute times rising. One way to combat this is to take advantage of ML to determine (in real time) the best route. Google (and its acquisition Waze) acquires millions of data points of commuter data, which is displayed on Google Maps. This allows you to receive directions that may not be the most direct route but will provide the quickest route to your destination. Without ML analyzing that data and applying the patterns to the Google Map you are viewing, this would not be possible.

These same technologies can be applied to transactional data to detect money laundering or any abnormal transactions that occur. Since patterns indicating problems can be identified quickly, and the problems dealt with, overall performance improves.

## Transforming Business Models

Finally, let's consider the three aspects of transforming business models: digital modifications to the business, the creation of new digital businesses, and the digital globalization of business.

### Digital Modifications to Business

As former Intel CEO Andy Grove once said, "You are either quick, or dead!" Look at how much Amazon has expanded its digital offerings through Amazon Prime, AmazonBasics, Amazon Web Services (AWS), Whole Foods, and so forth. Rather than remaining just an online bookseller as it was at its start, the company is now producing its own content for Amazon Prime, which puts the company in the entertainment business; buying Whole Foods puts it in the grocery business; AWS puts it in the hosting business; the list goes on. We can use digital mailboxes today that can be linked to your physical mailbox so that mail sent to your physical mailbox can be scanned and then sent on to you as a digital document, cutting down on mailing costs and making the mail more searchable. Even credit card companies are automating the application process, using bots<sup>8</sup> rather than more expensive people (only about 20% of credit card applications — those that don't fit the standard form — are routed to actual people to process).

### New Digital Business

Under Armour, rather than selling only T-shirts and shorts for sports, now has a whole line of shirts and shoes that track everything from your heart rate to your stride. Rocket Mortgage has turned the process of applying for a mortgage (one of life's more painful experiences) into an online process that can be completed much more quickly. Airports are taking advantage of travelers' mobile devices to own the travel lifecycle — from air traffic information to promotions at the duty-free shop.

### Digital Globalization

Many companies today, even small ones, often have more than one office or place of work. For example, Basecamp (a popular task/project management tool) has a small office in Chicago, very little marketing and sales (except online), and developers in 32 countries around the world. Global expansion forces companies

to make their processes more efficient and modular. For instance, large companies often have a module to create a new sales office in a new country. They simply add people and modify the module to fit that country's rules. This is much quicker and easier than creating a new office for each country; plus, they can deal with the different requirements of each country without making major changes to their process. Globalization not only makes these organizations more efficient, but also more agile.

*Often the CIO, the CFO, or even the CEO is the owner of digital transformation, but in my experience the owner becomes the leader who has the most passion for the topic and has made the most (positive) progress.*

## Who Owns Digital Transformation?

Digital transformation can be seen from many perspectives in an organization. If you are the CIO, it is about tools and technology, communications networks, and so on. If you are the chief HR officer, it is about creating new metrics, training, and change management, as well as where to place the people who have been automated out of their jobs. If you are the CFO, it is about ensuring that the new processes and technologies don't negatively impact the bottom line. So who should own digital transformation?

Meta-tools, such as a digital capabilities map, may help companies get a good understanding of where digital transformation is happening across the company. They show where digital capabilities exist in the organization, and/or where such capabilities are needed, in contrast to tools that provide analytics directly about the digital capabilities.

Most companies focus on a few of the nine transformation factors discussed above, although they may have some initial digitization processes involving seven or eight of the areas. Assignment of ownership may depend on how far along a company is on its path of digital transformation. Often the CIO, the CFO, or even the CEO is the owner of digital transformation, but in my experience the owner becomes the leader who has the most passion for the topic and has made the most (positive) progress.

## How Do You Measure Digital Transformation?

It is important to see if digital transformation is helping or hindering a company's business. The effect of digital transformation can be measured in a variety of ways, including productivity, employee efficiency/value, and bottom line. Let's take meetings, for example. I was talking with the CEO of a 100-person software company that had just come out with a new real-time collaboration tool. I asked him how large a percentage of his time was spent in meetings each week. His reply was about two-thirds of his time. The most telling answer came when I asked him how much Z-level work (i.e., making decisions, solving issues, brainstorming, strategic work) he does in meetings. His reply was 5%.

*We no longer live in a world of full-time employees. We must now deal with anywhere/anytime workers, contingent workers, and even bots that are assuming some repetitive tasks that people have done before.*

Until I gave that CEO a framework within which he could understand the value of his services, there was no way for him to see how little value he was giving his company and to realize how much more value he could provide. He did note that when the company started using the new real-time tool (like Zoom or GTM), the number of meetings dropped significantly, emails decreased by a large percentage, and many of the status meetings that were taking up people's valuable time (including his) were going away, as anyone could see the status of a project at any time just by viewing the virtual workspace for the project. Digital transformation is certainly helping in this case.

We no longer live in a world of full-time employees. We must now deal with anywhere/anytime workers, contingent workers, and even bots that are assuming some repetitive tasks that people have done before. To measure all this change and technology, the effect must be tied to value — dollars and cents.

Until some of the design thinking principles were applied to work and a framework for value was constructed, there was no way to determine whether digital transformation was helping or hurting. In general, digital transformation seems to be enhancing

value and to be the best path forward for success. It seems clear that almost any segment of digital transformation requires collaboration, so how do you ensure that this part of digital transformation is working? One way is to create a "collaborative mindset" as part of the corporate culture.

## What Is the Collaborative Mindset?

A collaborative mindset is like beauty — it is hard to define, but you know it when you see it. Some of the components that make up a collaborative mindset include:

- A focus on "we" rather than "me"
- Looking at what is best for the group, team, or project
- Great interactions among team members
- Alignment of purpose or goal (among team members, department members, or the people who make up an entire company)
- Eagerness to continually learn
- Having an open mind when listening to other team members or experts
- The willingness to entertain multiple strategies at the same time
- A desire to learn from past relevant experiences
- Not being afraid of technology; the receptiveness to using new technology tools to support interactions
- Understanding and using the proper collaborative tool for different types of interactions
- A willingness to enter into and work through conflicts

## Why Is Collaboration Critical to Digital Transformation?

Although we have only anecdotal evidence, teams that collaborate well are often 20%-25% more productive than teams that don't. So it is worthwhile to help teams adopt a collaborative mindset, as it can really affect the bottom line! Collaboration is also critical in helping digital transformation through:



- **Trust.** Trust is critical to help support changes in human behavior. Many new collaborative tools (part of digital transformation) require a high level of trust in other team members to share and work together for a common optimal outcome.
- **Complexity.** The level of complexity today at work is so high that only the simplest of tasks can be done by one person. Take, for example, the seemingly simple task of convening a meeting. The meeting owner can determine when the meeting is, what the meeting is about (agenda), how long it will last, and what the desired outcome is. But “meeting” implies that there is input from at least one other person, and, in general, usually more, with most meetings composed of four or fewer people.<sup>9</sup> The point here is that to do our work, we usually need to involve others.
- **Juggling projects.** In my firm’s 2015 research on challenges to collaboration in business organizations, we found that the average worker (no matter the size of the company) is dealing with two or three projects simultaneously.<sup>10</sup> Most of these projects have teams of people working on them. So today’s workers not only have to deal with managing multiple projects, but working with multiple teams.
- **Teamwork.** A team is a group of people working together for a specific purpose or goal. Most of us have worked on teams that performed just OK, or even poorly. A few of us have been on high-performance teams, which is an experience you remember for the rest of your life. What helps a team perform well? As mentioned above, “trust”; but also transparency (the ability for everyone involved to see all that is going on), good interpersonal communication skills, a clear objective, a wide range of skills (with some overlap), and a willingness and curiosity to look at challenges in a new way.
- **New thinking.** One of my favorite Einstein quotes is that “we cannot solve our problems with the same thinking we used when we created them.” A big part of digital transformation is dealing with change: changes in the digital tools you use for work and changes in behavior. These two types of change also perpetuate additional changes: in how we communicate, where we work and when, how we choose to interact with others, and so on. Ultimately, a change in communication can be the impetus for a change in organizational structure.

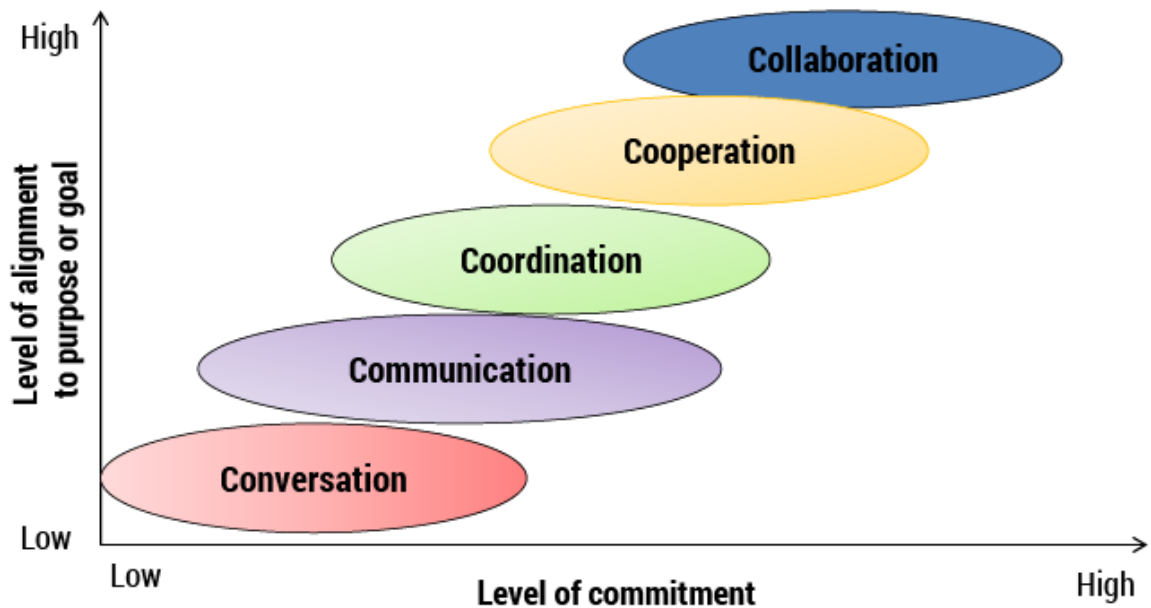
- **Change.** Since change is inevitable and its pace is constantly accelerating, our ability to deal with it is critical to digital transformation. We can choose to try to resist change, which is often futile in the end, or we can choose to embrace it. The grace with which we embrace change is often the result of having a “collaboration mindset.” Understand that change is never going to end, and that we need to become increasingly more agile.

As organizations get more and more distributed, and the search for talent grows to global proportions, communication, a critical element of collaboration, is what holds organizations together. Within the concept of communication, I include characteristics and tools such as transparency, chat, anytime videoconferencing, the ability to work together in augmented reality or virtual reality, trust, respect, peer-to-peer interactions, and so on. Communication has a great effect on organizational structures, based on who communicates with whom.

Command-and-control structures, which tend to be hierarchical, were the norm during the Industrial Revolution and into the late 20th century, with some companies having 12 levels between the CEO and the factory floor worker. But command-and-control hierarchies are not agile enough for today’s business environment, so these structures are starting to flatten out.

Today there may be only two or three levels between the CEO and the janitor (if one is even needed). The other levels have disappeared because of automation and better ways to communicate. There is no longer a need for secretaries, middle managers, and corner offices; the need today is for people to feel they are part of something — to be engaged in work that feels inclusive and does social good.

For any type of major change or paradigm shift, conversation, communication, coordination, cooperation, and collaboration are critical. However, many of these “c” words get used interchangeably. In looking at what each term means in communication theory, I was able to map them onto two axes, based on the amount of commitment to the task or interaction and the amount of alignment to a specific outcome or goal. As you can see in Figure 1, the closer you get to “collaboration,” the greater the alignment and commitment.



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Figure 1 – Determine the level of commitment and alignment required for collaboration.

## Summary

I have covered a lot of ground in this article, as digital transformation is a big topic. But I hope you can see that collaboration, transparency, clear communication, and anytime/anywhere interactions are critical to digital transformation. All the digital tools and technologies of today will provide little help if you don't have the right mindset and culture to use them correctly!

## Endnotes

<sup>1</sup>"Digital transformation." Wikipedia ([https://en.wikipedia.org/wiki/Digital\\_transformation](https://en.wikipedia.org/wiki/Digital_transformation)).

<sup>2</sup>Bughin, Jacques, and Tanguy Catlin. "What Successful Digital Transformations Have in Common." *Harvard Business Review*, 19 December 2017 (<https://hbr.org/2017/12/what-successful-digital-transformations-have-in-common>).

<sup>3</sup>"ComcastCares." Twitter (<https://twitter.com/comcastcares>).

<sup>4</sup>Zenefits (<https://www.zenefits.com>).

<sup>5</sup>CollabWorks (<http://www.collabworks.com>). (Author's note: I have been on CollabWorks's Thought Leadership Team for the last four years.)

<sup>6</sup>A work marketplace model is a way to model work as a marketplace, where providers provide services and customers consume services, resulting in value being generated.

<sup>7</sup>Collaborative Strategies, Inc. (<https://www.collaboratingbetter.com>).

<sup>8</sup>A bot is a program that responds to inputs in a specific area based on rules and algorithms. Bots can be applied to areas as simple as directing your customer service call, and as complex as helping you win your case in traffic court.

<sup>9</sup>Keith, Elise. "55 Million: A Fresh Look at the Number, Effectiveness, and Cost of Meetings in the US." *Lucid Meetings Blog*, 4 December 2015 (<https://blog.lucidmeetings.com/blog/fresh-look-number-effectiveness-cost-meetings-in-us>).

<sup>10</sup>Coleman, David. "10 Collaboration Trends for 2015." *CMSWire*, 20 February 2015 (<https://www.cmswire.com/cms/social-business/10-collaboration-trends-for-2015-028173.php>).

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# Transforming Change into Trust in the Digital Era

by Jagdish Bhandarkar and Namratha Rao

The present era of digital transformation brings with it disruptive changes in technology, culture, society, economy, workplaces, and much more. In this article, we explore the problem of disruptive change by means of a case study.

We discuss the evolution of the digital change management framework (DCMF) and what we have learned from implementing changes. And we propose how to make change management more human-centric, with intrapreneurship<sup>1</sup> opportunities and socially responsible projects that define the roadmap of short- and long-term goals of digitalization and, in the process, lay the cornerstone of empathy even within the inescapable changes happening around us.

## What Is Different About the Digital Era?

Digitalization is setting new standards for industries as customers actively interact with brands and businesses online. Companies are increasingly looking to invest in digital to connect, engage, and influence their customers. Digitalization has thus paved the way for today's all-pervasive social media.

Social media advancement has blurred the boundaries between people, with research showing that there are only "three degrees of separation" in today's connected world.<sup>2</sup> In addition, technologies like mobile, big data, and cloud have forced the digitalization of businesses across the globe. Some of the revolutionary concepts that companies are working on today include autonomous cars, robot assistance, microchips for medical purposes, gene-alteration techniques, and outer space colonization, to name a few.

Living alongside technology is a truth of this century. Thinking beyond the boundaries and equipping oneself for constant change define today's way of life. The possibilities are infinite, and a constant paradox of thrill and paranoia exists for those imagining the future. This is what separates this era from previous generations.

Disruption is a superlative degree of change. The new normal that emerges is perceived to appear in a blink of the eye. In such a situation, when is the right time to respond to such a change? Is the company equipped to transform itself and compete with the first movers<sup>3</sup>? Or is catching up the only way to survive? Can disruption be an inside-out change? Can a company visualize its own value curve<sup>4</sup> and carve a blue ocean,<sup>5</sup> hence becoming the harbinger of disruption itself?

Whatever the path to survival in today's digital era, what has worked before will not work for the future. Companies must continuously innovate and, throughout this process, must manage changes effectively to realize the value of innovation. The constant pace of innovation could mean that the classic change management techniques are no longer valid.

## Changing Course

Most current change management models advocate the typical cycle of assessing the need for change, planning steps to make the change, communicating the change, implementing the change, and tracking progress to sustain the change. While frameworks like the Deming Cycle (aka PDCA — Plan, Do, Study, Act)<sup>6</sup> and the EASIER (Envision, Activate, Support, Implement, Ensure, Recognize) model<sup>7</sup> are operational in nature, models like Prosci ADKAR<sup>8</sup> are oriented toward a singular view of individual change management, and others, like the McKinsey 7S Framework,<sup>9</sup> are too complex for large organizations to follow.

Years of slow change or overconfidence as to current success could make a company intrinsically less prepared to handle the disruptions happening today. The decline of companies like Blockbuster or Kodak are classic examples. Change management boards, which in theory must be fluid and responsive, may be incapable of identifying the sense of urgency and hence unprepared to manage the rapid changes happening around them.

## Evolution of the DCMF

Endowing the old change management frameworks with the additional dimensions of technology and innovation could help change a company's course. Along with process, people, leadership, and business, a new age DCMF should emphasize developments in technology and innovation as well (see Figure 1). When change is assessed, the complexities of this change appear in the form of the dimensions illustrated in the spectrum in Figure 1. These are a company's most significant dynamic variables affecting the implementation of digital change.

*The application of the classic change management technique of assess-plan-implement-track to the dimensions of the digital change management spectrum produces the DCMF, which companies can use to manage digitalization.*

The application of the classic change management technique of assess-plan-implement-track to the dimensions of the digital change management spectrum

produces the DCMF, which companies can use to manage digitalization. Change management needs to assess all these dimensions to evaluate the impact of a change. Key performance indicators (KPIs) and benchmarks must be set for each dimension of the spectrum to govern the overall effort and risk and to ensure successful change implementation.

As an example, agility-related KPIs need to be mandatory for each dimension. KPIs such as swift decision-making leadership and a flexible business model can be the pillars of support that an organization needs. Other KPIs measure technology maturity and associated skills, degree of knowledge sharing and collaboration, creative processes that enable harnessing the collective abilities of the organization, and so on.

A vital dimension of the spectrum is innovation, which defines how capable an organization is to lead a change or even play catch-up. A culture of rapid ideation and co-creation can jump-start certain initiatives and can be measured. Table 1 provides sample KPIs for the technology dimension.

The result of any change, whether inside-out (a company-initiated change) or outside-in (an outside-imposed change), can be modeled to represent customer and employee experience. Customers and employees can be surveyed about their post-change

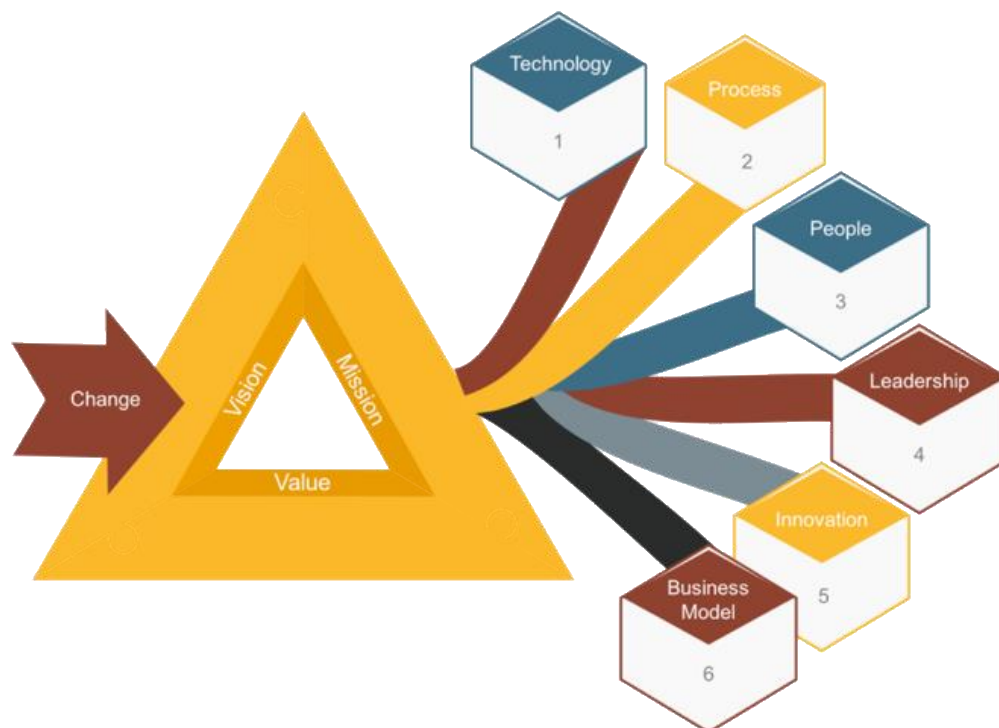


Figure 1 – The digital change management spectrum.

experiences, and a digital change quotient score (DCQS) can be calculated by examining the results of the survey. Figure 2 illustrates how the dimensions of the spectrum can be viewed through the “experience lens” of customers and employees to predict the DCQS.

The sample customer survey shown in Figure 3a includes questions related to compliance to the agreed terms for project deliverables, along with the innovation and flexibility exhibited in that time frame. Qualitative feedback can also be sought from customers.

As shown in the sample in Figure 3b, an employee survey might include questions related to employee

experience in bringing about a change and employees’ general outlook for the company.

Each survey question is assigned an experiential weightage between 0 and 1 (a percentage value to prioritize the responses based on the type of change exercise being undertaken). This weightage is multiplied with the five-point-scale survey result. The customer and employee surveys are scored accordingly. The DCQS is an average of the sum of scores of both these surveys on a five-point scale. A company’s DCQS indicates its capability to successfully deliver change. This score can be improved over time by applying lessons learned techniques.

Level 1: Basic	Level 2: Tactical	Level 3: Strategic	Level 4: Transformed
Minimal support or commitment to maintain IT	Basic IT support	Full-fledged support	Focus on optimization and performance of IT services
Disintegrated systems and data	Focus on departmental silo requirements	IT designed and managed by IT strategy	Continuous improvement and proactive changes applied
Minimal or no IT strategy	Some integration with system and data	Focus on delivering value to customers	

Table 1 – Sample KPIs for the technology dimension of the digital change management spectrum.

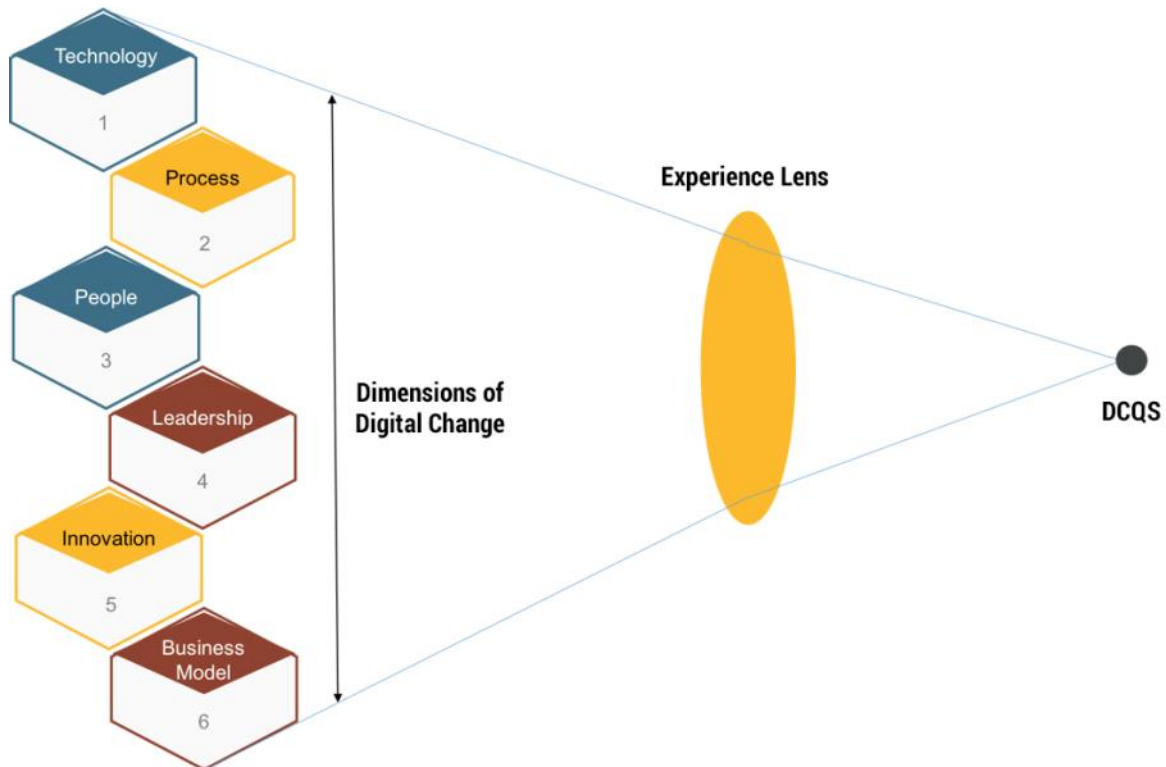


Figure 2 – Arriving at a digital change quotient score (DCQS).

Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1 The deliverables are always inline with agreed metrics of time, cost, and quality.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 You view us as a thought leader in automation that continuously delivers cost-effective and innovative solutions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 We are flexible to adapt to changing requirements and come up with proactive risk mitigation plans.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 3a – A sample post-change customer survey.

Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1 We are constantly upgrading ourselves with industry trends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2 There is a clear process to evaluate and implement ideas generated by employees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3 The leadership is reactive and does not make quick decisions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 3b – A sample post-change employee survey.

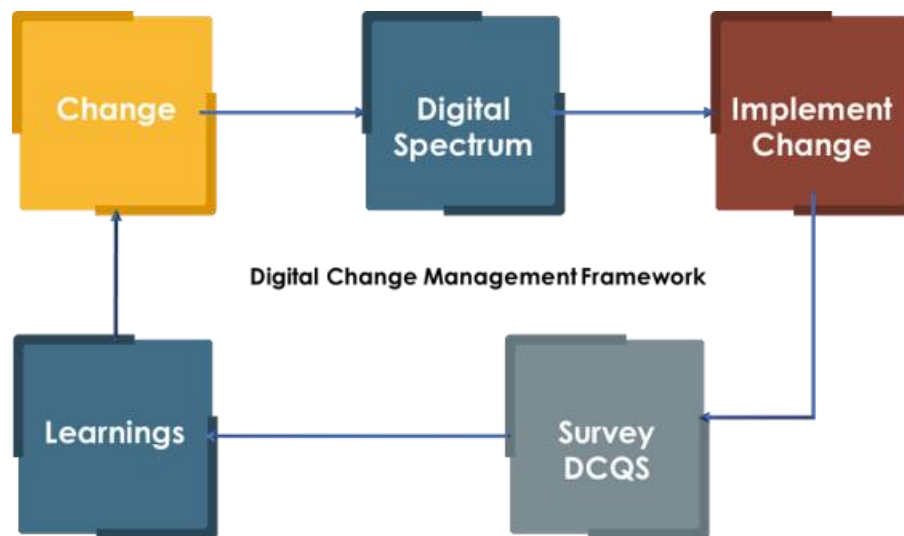


Figure 4 – The DCMF.

By deconstructing both success and failure stories and learning what to repeat, what to avoid, and what to do differently, this indicator can serve as a reference point that companies can use to constantly improve. A company’s DCQS can also bring a degree of predictability into its change management process. When tracked continuously, this indicator — and hence the framework — can transform change into a habit, thereby making change less painful. Figure 4 shows the DCMF in action.

## Leadership and Change

Today, every company is viewed as a technology company. Customers expect a digital experience, so companies are moving to digitalize their approaches toward services, operating models, and products. Nike, Netflix, and Amazon are examples of companies where digitalization has brought about massive changes not just in the technology used but also in value chains, organizational structures, operational processes, and revenue models.

The path to becoming a digital company is difficult and the challenges are multifold. It means ensuring customers remain connected even with the drastic changes that may be needed and overcoming resistance to new business models. Becoming digital does not simply mean implementing new technology; it also requires developing new leadership skills combined with connectivity among a company's people, processes, and data. Cultural changes may also be a challenge if the digital transformation must cut across silos in the organization.

## Driving Change: A Case Study

The word "banking" may conjure an image of a large corporate entity with millions of dollars in assets spread out across the globe. Yet among these players are fintech startups like GreenSky and Stripe, which have emerged with new technological innovations and have become potential threats to traditional financial institutions. Due to such competition to become sustainable digital entities, large banks have invested millions of dollars.

But community banks constitute a portion of banking institutions as well and are part of the fabric of smaller communities. These banks have neither the major assets nor the investments of large banks, nor the financial and technical agility of fintechs. What community banks do have is a loyal customer base and community support. For community banks, implementing innovative technology is excessively costly and switching to a digital track is a challenge.

Our case study examines the implementation of a digital change in a US community bank meant to retain its loyal customer base and to put in place newer ways of monetization. The bank's newly named CEO brought with him years of experience in applying digital in the banking world. His first quest at the community bank was to understand customer expectations and to assess how the bank performed and what needed to be changed.

Among the bank's retail customers, the younger generation wanted around-the-clock availability of services, while the older generation preferred to visit branches and would tolerate the accompanying delays. For commercial customers, the lack of remote depositing of checks was causing them to shift their accounts to bigger banks. That service feature would be one of the core blocks of the bank's digital transformation.

With the US Check Clearing for the 21st Century Act (Check 21), trips to a local branch or lockbox site to deposit checks had become a thing of the past for many US corporations. The combination of Check 21 legislation and advances in check imaging technology provided the ability to automate the deposit process, adding significant value to corporate treasury operations. Moreover, remote deposit capture (RDC) emerged as a popular method for automation of the deposit process driven by advances in check electrification.

*Becoming digital does not simply mean implementing new technology; it also requires developing new leadership skills combined with connectivity among a company's people, processes, and data.*

Apart from other expectations, the community bank's commercial customers were demanding the availability of RDC, which would allow them to set their own operational timelines without needing to adhere to the bank's constraints. Commercial establishments needed this ability to manage costs associated with the processing of paper checks and to lower transportation costs by reducing or eliminating trips to the bank.

The CEO communicated these commercial customers' expectations to the bank's employees. On the one hand, employees immediately perceived the RDC change as likely to result in a change in the number of days and hours worked and possibly the elimination of jobs. On the other hand, the advantage to the bank would be considerable, as there would be no need for the higher-volume operations in checks that incurred significantly higher time and cost.

The CEO faced three challenges in implementing this change: (1) taking care of customer expectations was the priority; (2) letting employees go would mean abandoning the bank's community roots and mission and was therefore not an option; and (3) implementing the technology changes required would incur significant investment.

The CEO took the decision to move to digital; newer models would help the bank face its challenges. To assist in this change process, the bank hired a change management consultant and insisted on a plan for

future self-sufficiency. The consultant's responsibilities were to add value during the assessment and planning process, to educate the board, and, during the early days of the project, to help organize and accelerate the change process, bringing experience and helping the bank avoid mistakes other organizations had made.

The introduction of the DCMF allowed the CEO to look at the bank's problems through the dimensions of people, technology, innovation, business model, process, and leadership. The DCMF also emphasizes communication, both to internal and external entities, and the bank's new mission and renewed vision were made clear to employees and customers. The classic change management processes of assess-plan-implement-track were applied to every dimension of the digital change management spectrum.

*The CEO conveyed his belief that digital transformation should be a strategic imperative set out to recruit and employ the "right people."*

The bank clearly outlined the business benefits to its commercial customers that would come out of the changes to its business model from implementing RDC: accelerated clearings, improved cash management operations, bank treasury consolidation, reduced transportation costs, and time savings. The benefits for the bank from the change to its business model included reduced transportation costs in areas like ATM deposit pickups, branch cost savings, and a smaller number of incoming customer cash letter deposits. The CEO also noted that RDC can open doors for new revenue streams by the addition of new clients and making possible a larger wallet share with existing clients, as well as the utilization of additional products that arise from RDC, such as ACH (Automated Clearing House) transactions, checks, liquidity services, and so on.

The challenge for the technology aspect was to create an integrated receivable platform that would accept, process, and post any payment method from any payment channel. The CEO initiated a technology portfolio discussion with his lines of business (LOBs) and IT leads to draw up an IT strategy. Prior to the CEO's tenure, IT determined which products to buy off the shelf and which to build from scratch. The culture now changed to LOBs funding IT, and thus making a joint informed decision. This reduced friction between

the LOBs and IT in the bank's digital journey and paved the way for the creation of a full-fledged support model. The LOBs used this support model to address customer queries or issues, and IT employees now realized the importance of the IT strategy in delivering the promised value to customers and began to empathize with customers and with LOB colleagues who were having to interact with customers in the event of any downtimes.

The benefits came with associated risks. Those risks centered around who should be using the RDC feature and how the bank would monitor the associated RDC account risk. A risk assessment presented to the CEO and the board helped in setting up a formal risk review process and mitigation procedures. The LOBs and IT used the risk review findings to effect changes in the process the LOBs followed and in the technology IT handled. This was done iteratively so that the bank can be comfortably situated when audited by the US Federal Reserve System.

The people dimension provided the CEO with his most important challenge, and one that had to be handled with extreme care. He brought with him not only years of banking experience, but also a philosophy and deeply held set of principles about how to be an effective leader. The CEO conveyed his belief that digital transformation should be a strategic imperative set out to recruit and employ the "right people," as well as focusing on training and developing his entire team. The bank already had most of the people and talent needed and required minimal additional recruiting.

The CEO built a digital transformation group that included the consultant, along with key associates in the LOBs and IT departments. The digital transformation group also took stock of the existing employees and their interests to develop cross-training plans if some jobs were eliminated and to ensure that the community was not harmed due to the bank's digital route. The group also inculcated the importance of pulling together a cross-departmental team that would go beyond IT and operations. It held the core belief that the customer experience — and not the technology — was of prime importance. Implementation of a strong succession plan helped ensure that the bank would continue to provide high-quality relationship management, a service its customers appreciated.

The board and the community were iteratively briefed on the digital transformation process as part of the transparent communication initiative. Their satisfaction with the communication and the process helped the



CEO obtain the additional funding necessary to cement his vision to make the bank more digitally oriented.

The CEO also worked on engaging the community and creating positive PR for the bank. Beyond the typical helping hand for local organizations, the bank developed an innovative initiative to involve the community in the bank's improvement through an idea-generation portal. Any community member could use the portal to suggest an idea that might help the bank — anything from how to improve the execution of initiatives to a strategy for deciding on new initiatives. The community member who contributed an accepted suggestion and problem solution became the champion from the community to oversee the completion of that solution. The idea-generation portal gave the community faith in the bank's leadership.

Assessing the changes required for each dimension of the DCMF resulted in a set of KPIs to track. Customers welcomed the RDC service and employees were satisfied with the painless implementation of the digital strategy. Employees and customers were surveyed to determine the DCQS. Once the score was known, the digital transformation team worked to resolve any issues at each dimension of the spectrum, ensuring that the KPIs were adhered to and were effectively captured and measured.

The continuous improvement attitude inherent in the DCQS has fostered a culture of innovation and planning for what is ahead for the bank. As a next phase, the bank is now evaluating the means of applying analytics and predictions to its customers and is ready to roll out the change. Focusing on each dimension of change and quantifying the results of implementation have transformed the initial negative perceptions of change to a positive practice in the bank.

## Human-Centric Approach to Rapid and Disruptive Changes

Disruptive changes within a company can result either in a spectacular rise if done right or an abrupt decline if not handled well. People are at the center of every change. If employees do not connect with their organization, do not see the need for change, do not buy in to the leadership's vision, or are not motivated, any change will fail.

For employees to see value beyond the defined work parameters, they need to feel connected to the company.

In a world of frequently changing loyalties, companies must focus on engaging their people at a very basic level. Respect and trust can be built by showcasing in earnest the company's initiatives toward the greater good. Connection, respect, and trust will help a company maintain employee support for the changes that a company wants to implement.

Below, we discuss in brief two such initiatives that brought about drastic increases in employee support and participation.

### *Initiative 1: The Social Responsibility Factor*

When a *Fortune* 500 company conducted an employee satisfaction survey, it became clear that the employees were not highly connected to the company's vision and were only moderately motivated at work. While there were many takeaways from the analysis of the results, a few key issues were considered attributable to insufficient employee engagement:

- General sense of detachment from the success or failure of the company's initiatives
- Neutral outlook on the company's leadership
- Insufficient pride in the company's brand

These takeaways explained to an extent why employees were not meeting each change initiative the company took on with enthusiasm and a sense of ownership.

One key initiative close to the CEO's heart was her contributions toward corporate social responsibility. A select few ran such projects. Despite communication about these projects, employees did not identify with them. After some deliberation, the leadership team decided to open these projects to all employees. They were, for example, invited to participate in an activity that aimed to donate food and clothing to a flood-stricken area in a neighboring state. Many employees at all levels became involved, and the project brought the company's people together.

This experiment reaffirmed the idea that, when a company's people connect with each other and see the company's leadership as responsible and trustworthy, a sense of belonging naturally occurs. Having built and nurtured such an environment, the company now finds it comparatively easy to engage employees and drive change.

## Initiative 2: Intrapreneurship Opportunities

A *Fortune* 100 company was quite successful in driving change and outperforming its competitors. But leaders observed that it was only the team dedicated to R&D that was quickly implementing changes to catch up with industry trends. So the leadership asked middle management to come up with possible solutions. Within a few days, middle management had suggested several ways to solve this problem, including one that was unique: intrapreneurship.

The goal was to create an environment in the company conducive to innovation and research. Creative ideas likely to result in a business win or revenue-generating opportunities were given the necessary hearing and then funding by the “idea board,” which comprised important company stakeholders. The idea generators, called “intrapreneurs,” owned the project and received a percentage of the revenue generated by the project upon realization. This resulted in enhancing the feeling of ownership, accountability, responsibility, and involvement of the people who participated in such projects.

Intrapreneurship acted as a sounding board for employees, who generated ideas that became real differentiators for the company. The company saw an increase in curiosity to think out of the box, to be aware of what is happening in the world today, and of how to apply certain concepts for the benefit of the company.

## Change Is Imminent

Both social responsibility and intrapreneurship show that by taking a human-centric approach, involving people, and winning their loyalty, it becomes easier to identify and drive tough changes within a company. Change is the only constant. In today’s digitalized world, the only thing any company can predict with 100% certainty is that *change is imminent*.

Preparedness is the best bet for a company to survive in these tumultuous times. By effectively employing the dimensions of the DCMF, leaders can be the anchors of change. Our case study shows that in the digital era, every company — small or big — can be a change maker and create a difference by embracing the advantages that digital brings. When leaders gain employee trust and enhance engagement with intrapreneurship and involvement in social responsibility initiatives, employees are more favorable to change.

People come to *expect* change rather than seeing it as a surprise or, more often, a shock. Slowly, this thought process becomes the norm and is internalized into the genetics of the organization.

## Endnotes

<sup>1</sup>An intrapreneur is a person who behaves like an entrepreneur while being employed, developing an idea into a workable product for the company he or she works for.

<sup>2</sup>Bakhshandeh, Reza, Mehdi Samadi, Zohreh Azimifar, and Jonathan Schaeffer. “Degrees of Separation in Social Networks.” *Proceedings of the Fourth International Symposium on Combinatorial Search*, AAIL, 2011 (<https://www.aaai.org/ocs/index.php/SOCS/SOCS11/paper/viewFile/4031/4352>).

<sup>3</sup>“First mover” refers to a company that gains competitive advantage by being the first to bring a product or a service to a market.

<sup>4</sup>“Value curve” is a depiction of a company’s relative performance across its industry’s factors of competition.

<sup>5</sup>A “blue ocean” is a new, uncontested market space that, when created, makes the competition irrelevant. For more on blue ocean, see: Kim, W. Chan, and Renée Mauborgne. *Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant*. Harvard Business Review Press, 2015.

<sup>6</sup>“PDSA Cycle.” The W. Edwards Deming Institute (<https://deming.org/explore/p-d-s-a>).

<sup>7</sup>Hussey, D.E. *How to Manage Organizational Change*. Kogan Page Ltd., 2000.

<sup>8</sup>“ADKAR.” Prosci, Inc. (<https://www.prosci.com/adkar>).

<sup>9</sup>“McKinsey 7S Framework.” Wikipedia ([https://en.wikipedia.org/wiki/McKinsey\\_7S\\_Framework](https://en.wikipedia.org/wiki/McKinsey_7S_Framework)).

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# Successful Digital Strategy? But What About Culture?

by Jon Ward

History recognizes the impact of the Industrial Revolution of the late 18th century and early 19th century. That revolution provokes images of smoke, steam, and factories, and resulted in societal disruption on a social, geographical, and economic scale. The digital era, while far less evocative in terms of imagery, is set to mirror the Industrial Revolution's impact on lifestyle, working practices, and the economy. However, what is its impact on entrepreneurs and business leaders? How does an established organization mobilize its resources to participate in an era characterized by rapid technical and market innovation? How do executives harness the organizational knowledge base to explore the opportunities made possible by the speed and breadth of potential developments?

The society of the time characterized leadership and culture in the Industrial Revolution, with innovation being led by the wealthy and well-to-do. In the subsequent 200 years, leadership evolved into the corporate and cultural structures that we know today. The recent revolution of the digital era is bringing about social and economic disruption led by entrepreneurs and inventors. The impact on organizational culture will be significant. Today's organizations are reinventing the leadership and cultural frameworks used in the recent past. Traditional change models (e.g., Kurt Lewin's Unfreeze-Change-Refreeze model<sup>1</sup>) seem to represent a controlled view of change with a distinct beginning and delineated completion. These are being replaced by a concept of change as rapid, simultaneous, and incremental, based on an Agile *conceive-develop-see* market experimentation logic.

The *conceive-develop-see* approach has as its core a culture of generating ideas, rapidly developing them, and market testing them in a controlled environment. In order to create digital market disruption, some ideas will not work, while others will provide the desired results. *Conceive-develop-see* allows an enterprise to quickly and effectively test market opportunities. Agile, in this context, means using people, resources, data, and analytics to continuously source promising opportunities or solutions to problems in real time (*conceive*); developing them to a point where they can be market

tested quickly (*develop*); and evaluating the results, projecting the potential, and rapidly iterating (*see*). Interestingly, business strategies are as well defined as they were in the past. It's the means of achievement that is less so.

In an interview with Henry Blodget at the 2014 Business Insider *IGNITION* conference, Jeff Bezos said that "success at Amazon is a function of how many experiments we do per year, per month, per week, per day." Amazon's chief executive admits massive failures on market experiments, including the Fire Phone. "I've made billions of dollars of failures at Amazon.com. Literally. None of those things are fun, but they also don't matter," asserted Bezos. "What really matters is that companies continue to experiment."<sup>2</sup>

Today's digital era organizational culture differs significantly from traditional organizational culture. Out are the "fear of failure" or "cautious investments in new products" behaviors of the past; in are innovation, rapid development, and market experimentation. In the digital era, it is thought generally acceptable, within tolerances, to have some product or service failures in the quest for a profitable, innovative market disruptor. A short cycle time from idea to limited market test is essential to control costs or else risk the effects of resource depletion. These test product launches are not explored in a "bet the farm" context but are rather experiments within a controlled organizational framework.

The digital business is, therefore, an organization that embraces an Agile philosophy along with Agile values at its core, from its people and its use of technology to its culture, and, consequently, its extremely customer-centric nature. The digital leader focuses on business value creation and developing organizational agility.

Many predict that smaller, innovative organizations will lead the digital revolution and that many larger corporations will pass away. This may eventually be the case. However, using the *conceive-develop-see* approach, it may be that only the larger corporations have the wealth and resources to pursue the digital

revolution. This begs the question: how will these larger organizations adapt?

Unless an organization pursues a strategy of innovation for its own sake, then digital era products and services are still subject to the marketing lifecycle with profitability and reward appearing in the market growth and maturity stages. This means that organizations need to create structures and a culture within which they can simultaneously innovate and deliver the new inventions. There needs to be a marriage of innovation expense control and revenue generation. So how does a modern leader engender such a culture? What are the needed techniques? What does this mean for senior leadership behavior? How is this experimental culture developed?

*Digital leaders need organizational clarity so that both energy and resources focus on the development and delivery of winning concepts.*

## The Agile Digital Culture

Senior executives who now find themselves as digital leaders initially need to look inward to develop comfort with the digital culture of controlled innovation, rapid development, and measured market evaluations. Namely, they need to shake off some traditional routines and adopt the following Agile practices:

- Encouraging innovation in random patterns from all levels of the organization
- Exploring and market testing ideas even if they lead nowhere
- Giving greater autonomy to Agile development teams
- Rapidly terminating activities that do not create the desired value
- Accepting that command-and-control management has been replaced by self-organizing teams
- Adopting a servant-leader behavioral model of management
- Incentivizing openness, trust, and collaboration

Once comfortable with themselves, senior executives should have the ability to clearly articulate the new business strategy, explaining the organizational vision of the digital future. They then must display the behaviors that encourage a culture of idea creation for new products or services from within their organizations. They should provide frameworks for idea creation and prioritization, Agile product development, and rigorous market testing, as well as safe zones where employees can feel comfortable exploring new digital ideas and opportunities.

The Agile practices outlined earlier are equally appropriately applied to the delivery of the resultant products and services as they are to the innovation activities themselves. The digital products and services need to be reliably delivered and costs must be managed in a way that generates a cash base for further product or service innovation. Organizations can also apply Agile practices and the subsequent developed management behaviors to operational cost reduction and the improvement of service provision.

Digital leaders, therefore, need organizational clarity so that both energy and resources focus on the development and delivery of winning concepts. Inappropriate activity and unnecessary costs should be avoided. The difficult question in an innovative Agile culture remains: which activities are inappropriate? Being Agile does not imply a reduction of managerial control; indeed, it's quite the opposite. If uncontrolled, conceive-develop-see and suboptimal business operation will burn resources, leaving the Agile organization starved of the ability to innovate. To manage this situation, executives must use control frameworks that encourage agility yet provide mechanisms for risk reduction, efficiency, and cost control.

## Vital Mechanisms for Building the Agile Digital Organization

According to the Agile Business Consortium, the central tenet of the controlled organizational framework is that people, not processes, drive innovation.<sup>3</sup> Yet the framework also acknowledges the need for continuous review and management of the innovation portfolio. In many traditional organizations, the linkage between strategy and project execution is broken. In the digital organization, this cannot be allowed and rigorous management at the portfolio level is essential.

Portfolio management is a technique that addresses how an organization goes about identifying, prioritizing, initiating, and governing the conceive-develop-see activities. It is a lightweight and streamlined approach that seeks to maximize the creation of business value in a long-term, sustainable manner. To be effective, the process demands information: organizational strategic intent, initiative objectives, desired business outcomes, market timelines, budget, and time-to-market forecasts. Delivery risk and operational risk-impact assessments are also crucial.

Agile organizations need a description of how teams work from beginning to end. This description (or framework) specifies accountabilities and how the activities of conception, market testing, digital solution realization (analysis, design, and development), and operational delivery all fit together in a cohesive, streamlined whole. The Agile product development framework will illustrate how operational and delivery risks are evaluated and reduced in an innovative environment. In doing so, an enterprise risk culture appropriate for the market sectors in which the organization operates will emerge.

Moreover, the means for requesting, obtaining, and justifying funding need to be explicitly identified in the Agile product development framework. Nothing can be more demotivating than a team having funding withdrawn without understanding why. Similarly, the process for seeking additional funding needs to be unambiguous. Nothing defines an organizational culture more than the way financial matters are managed. All of senior management's intent regarding agility, openness, and trust can be completely undermined by an expense process that does not support Agile product development and rapid market testing. Generally, finance functions are the last to embrace changes in pace, agility, and market testing. To be successful in making this culture a reality, the finance function needs to be embedded in the vanguard of the organizational change process.

In fact, the Agile project or product development budgeting process opens a new cultural world to finance functions as well. When you prepare project budgets in an Agile way, you budget in sprints, either monthly or quarterly; you can easily calculate exactly how much each sprint is going to cost. Using Agile, the cost of an initiative is usually in direct correlation with

project time because Scrum teams consist of dedicated team members. They have a set team cost — generally expressed as an hourly or fixed rate per person — that should be the same for each sprint. Consistent sprint lengths, work hours, and team members enable the accurate prediction of development speed. This allows for checkpoints, where the organization can review progress and sanction further funding or stop activity. After determining how many sprints your project will take (i.e., how long your project will last), you can know how much your Scrum team will cost for the whole project. However, to be effective, this way of budgeting and forecasting needs to be transparent and understood throughout the organization, from senior executives to team members.

*The Agile product development framework will illustrate how operational and delivery risks are evaluated and reduced in an innovative environment.*

To operate these lightweight mechanisms there needs to be a new type of control function. The traditional project management office (PMO) function needs to be redefined to one that focuses on:

- Proactively managing the portfolio
- Stopping initiatives from going wrong
- Assisting initiatives to progress at a faster pace
- Constantly evaluating the business case for each investment, with an emphasis on continuing only the forecasted most beneficial initiatives
- Buffering Agile initiatives from less Agile elements of the organization
- Providing assurance to stakeholders that investments are being well managed and controlled

This new breed of PMO, often called a *Lean-Agile PMO*, seeks to minimize waste while promoting speed of delivery.

The mechanisms described above provide an organizational “safety net” but do not in themselves create an Agile culture. British inventor and industrial designer James Dyson observes that “failure is an enigma. You worry about it, and it teaches you something.” It is the culture which these practices engender that enables an organization to be an effective digital player.

Agile is as much about culture and core values as it is about principles and practices. Adopting a framework does not automatically change the culture and values to ones that allow a digital Agile enterprise to flourish.

*Senior management behavior is vital to the foundational change of establishing an enterprise culture for the digital era.*

## What Does All This Mean for Senior Leadership Behavior?

Thus far, the digital era has been a driving force of change across industries, and the pace of transformation is accelerating. Back in 2001, Apple launched the iPod. In just three years, the iPod caused the sale of music CDs to fall to their lowest level in 35 years. Uber got its start in March 2009, launched its beta version in May 2010, and starting from 2011 the organization digitally reshaped the San Francisco taxi industry. This digital disruption to traditional cab operators took Uber just over one year to achieve. While the pace of the digital revolution can often be measured in months, it typically takes years for an organization and its people to fully embrace such fundamental changes in the way they operate.

Senior management behavior is vital to the foundational change of establishing an enterprise culture for the digital era. Increasingly, organizational responsibility is moving from head-office functions down to the positions where the decisions are most effectively made. In many organizations, this means that real decisions are no longer the exclusive remit of senior management. Using Lean concepts, organizations are becoming flatter and focusing on process efficiency and adding value. Inevitably, this trend will test the role of middle and senior management, as they find they are no longer needed for regular business decisions but are now

required to develop visions of the enterprise’s digital future. In fact, many middle management roles are already disappearing as a result of the adoption of artificial intelligence (AI) and digital process automation, both of which have come out of the digital era. It is a significant step for middle management to lead the introduction of new practices and culture while at the same time their positions are threatened. However, perhaps this pressure itself provides the incentive and catalyst for change.

Business leaders have historically focused on outcomes. In today’s digital era, there are technological enablers that make it possible to measure and test the soundness of decisions quickly and easily. These enablers, such as big data and AI, permit leaders to harness digital tools and techniques to test and evaluate business outcomes. However, senior executives should also fine-tune their decision making by referring to the enterprise operating model, which outlines the business objectives and operation of the enterprise. Failure to do so would be making judgements in an operational vacuum.

Typical operating model concerns are:

- **Strategy.** How will the investment in digital capabilities drive organizational value? What future role does the organization want in the digital space?
- **Market.** How will prospective customers be engaged and relate to the organization?
- **Operations.** How will the business plan establish the value created by digital initiatives? How are innovation and operations to be optimized?
- **Resources.** How will the skills and capabilities of the workforce enable or inhibit organizational growth in the digital environment?

The emphasis of senior executive behavior is on providing leadership and fostering the development of people and capabilities. Enterprises should preserve the organizational knowledge base by enabling a learning environment and investing in the development of existing capabilities. The digital organization encourages ideas from all areas of the enterprise; it is within the existing work pool that the source of many of the ideas for digital disruption will lie. After all, an organization is likely to base its digital disruption upon the markets and geographies in which it already operates, and the existing workforce understands the customers and needs of both the current market and

the current geographies. It is therefore essential that leaders utilize their existing resource pool by providing employees with the learning and tailored development to facilitate their transition to the digital era.

## Developing an Experimental Culture

The experimental culture is developed by positive intent and the measurement of progress. The digital enterprise primarily requires transparency and a simple set of metrics to help people understand their roles and to allow them at the team level to make meaningful decisions within the corporate governance framework. The corporate governance framework sets out the roles, responsibilities, and limits for decision making within the organization. Using self-managing teams does not imply any element of self-directing; the leadership role of senior management is clear. Senior leaders need to engender, show, and sustain cultural change.

Organizational culture is not changed by the flick of a switch; a changed organizational culture is the result of deliberate actions and leadership to move behavior in a certain direction. It emerges from a change in business objectives and leadership behavior and is facilitated by the adoption of processes and frameworks that encourage a certain type of conduct. Typically, organizations begin by taking small steps, making certain teams or product areas adopt the new *modus operandi*.

However, a “tipping point” quickly emerges, where the complete organization needs to become Agile. This factor may be why some suggest that only new companies will succeed in the digital era. For larger corporations, a significant level of organizational design and restructuring is required. Once the desired organization has been designed and implemented, these changes should then be tested to ensure that the desired behaviors are evolving. Cultural questionnaires and staff feedback sessions are means of measurement, but the ultimate test is whether the desired new products and services are appearing.

Becoming Agile in the digital era is a strategic imperative. For larger organizations, it takes time and planning to achieve the necessary agility.

## Conclusion

This article outlined the cultural developments required for larger corporations to be active participants in the digital era. By making use of Agile principles and empowering teams, collective creativity can be harnessed into a strategic force. However, to be effective, senior executives must first look within themselves to see if they are able to display and encourage the behaviors necessary for organizations in the digital era. They then need to create the processes and organizational structure that facilitates conceive-develop-see market experimentation within an organizational control framework.

## Endnotes

<sup>1</sup>“Lewin’s Change Management Model; Understanding the Three Stages of Change.” NHS North West Leadership Academy ([http://www.nwacademy.nhs.uk/sites/default/files/86\\_1722011\\_lewin\\_s\\_change\\_management\\_model.pdf](http://www.nwacademy.nhs.uk/sites/default/files/86_1722011_lewin_s_change_management_model.pdf)).

<sup>2</sup>Interview: Amazon CEO Jeff Bezos.” Business Insider, 15 December 2014 (<https://www.youtube.com/watch?v=Xx92bUw7WX8>).

<sup>3</sup>“Framework for Business Agility.” Agile Business Consortium, 2016 (<https://www.agilebusiness.org/communities/framework-for-business-agility>).

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