

**Leading in the Digital Economy:
Sensing and Seizing Emerging Opportunities**

Executive Summary

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The New Rules in Business

Imagine you are milling about in a large casino with the top figures in high tech — the Gates, Gerstners, and Groves of their industries. Over at one table, a game is starting called Multimedia. Over at another is a game called Web Services. In the corner is Electronic Banking.

There are many such tables. You sit at one.

“How much to play?” you ask.

“Three billion,” the croupier replies.

“Who’ll be playing?” you ask.

“We won’t know until they show up,” he replies.

“What are the rules?”

“Those will emerge as the game unfolds,” says the croupier.

“What are my odds of winning?” you wonder.

“We can’t say,” responds the house. “Do you still want to play?”

— W. Brian Arthur

What distinguishes great leaders from average ones? Brian Arthur, economist, author and professor at the Santa Fe Institute, says it is their ability to perceive the emerging nature and rules of a game *as they are playing it*. In today’s economy, the name of the game, who’s playing, and how they’re winning is changing at a dizzying pace — and not just for technology companies. The globalization of markets and market forces, the predominance of networking and connectedness, the increased speed of all types of communication, and the valuation of knowledge over products mean more complexity, more competition, and more change happening faster and faster. In a world of increasing returns — where early success breeds more success — a marginal lead-time can spell the difference between big gains or failure.

Companies that want to thrive in this kind of flux need to develop a critical new capacity: the ability to sense and seize opportunities as they emerge. Recognizing the possibilities inherent in a new set of conditions is not a skill taught in MBA programs, but it can be learned. Bringing those possibilities to fruition requires a type of awareness, knowledge, and focus rarely talked about in corporate corridors or university classrooms. But increasingly, people are talking, and from these corners of creativity, in small groups and teams, a new competence is emerging.

In the spring of 1998, we began to talk with leading practitioners and influential thinkers in the areas of creativity, high performance, and the digital economy. We wanted to know what accounted for the stunning successes, and the fumbling first starts, of entrepreneurs in the digital economy. Were there commonalities? Could others reproduce successful strategies? Over the next two years, we had in-depth conversations with over 100 people and visited dozens of labs, classrooms, and offices. What follows is a brief summary of what we discovered.

A New Core Capability

People who achieve industry breakthroughs or develop revolutionary ideas follow a set of five practices that we see as the heart of this new core competence. Together, they constitute one organic process.

- observing: seeing reality with fresh eyes
- sensing: tuning into emerging patterns that inform future possibilities
- knowing: accessing inner sources of creativity and will
- crystallizing: creating vision and intention
- executing: acting in an instant to capitalize on new opportunities

Innovation, whether in the context of improving existing processes or reinventing an entire industry, is never a mechanical process. While each practice is distinct, it occurs in a fluid continuum. Two or more practices are often done in conjunction, certain practices may be repeated, and an element of each is always present in the others. The three stages of the process — what we refer to here as sensing, knowing, and executing — are common to all creative endeavors. High-performing individuals, teams, and organizations are constantly iterating through this cycle.

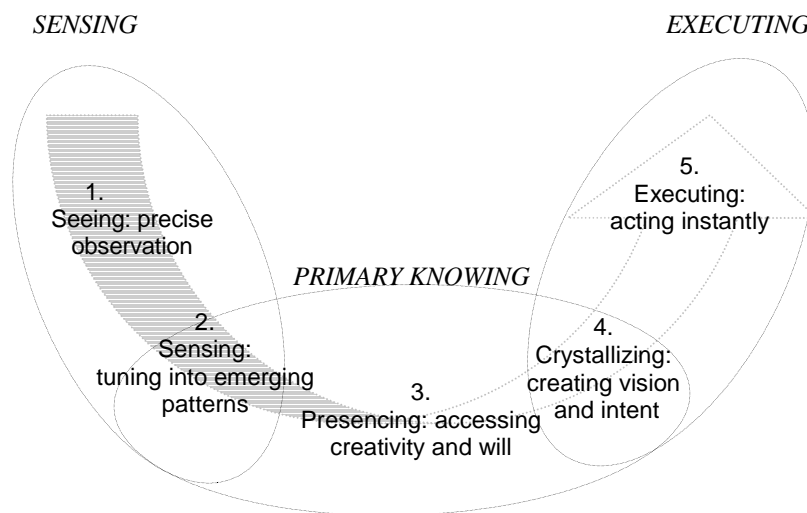


Figure 1: Sensing and Actualizing Emerging Futures: One Process; Three Stages; Five Practices ¹

¹ The figure is adapted from Scharmer (2000), Presencing: Learning from the Future as It Emerges: On the Tacit Dimension of Leading Revolutionary Change. Paper presented at the Conference on Knowledge and Innovation, May 25–26, 2000, Helsinki School of Economics, Finland; and from Jaworski and Scharmer (2000), Leadership in

Stage One: Sensing

When I left Harvard Business Review I started meeting a whole new group of people. The basis for personal interaction was completely different: “What are you working on that is interesting and who are you and how does it feel?” I was seeing the world with fresh eyes. I was learning at a rapid clip, going places I had never been before, and talking with people I never would have met before. It was as though I had escaped the boundaries of a walled city.

Alan Webber, co-founder of *Fast Company* magazine

The first stage, sensing, requires an attitude of openminded receptivity, and a willingness to let go of preconceptions. The question to keep in mind is: What is going on? Observing the world with fresh eyes means immersing yourself in environments that are relevant to your situation or quest by talking to different people, visiting unusual places, or reading about new subjects. It may also involve paying attention to things you are normally not aware of: activities you perform by rote, interactions you take for granted, expectations you’ve never questioned, or meanings you’ve never explored. The more you succeed in suspending your habit of judgment about what you notice and observe, the more clearly you will see what is going on around you. As a deeper way of seeing, sensing engages the imaginative mind as a tool for perception that will help you see patterns, make new connections, and deepen your understanding of your world as it unfolds.

Stage Two: Knowing

I have always felt that I should do what I was here to do. To know what that is, I have to keep asking, “What’s going on in the world?” and “What’s important to me?” The two questions are intertwined and can’t be answered in isolation. They are the most important questions we can ask.

— Peter Senge, Author, *The Fifth Discipline* series

During the second stage the focus shifts from what is happening in the external world to the nature and organization of the internal world. The question to ask is “What needs to be done here?” and for that, one needs to have answered what Stanford Professor Michael Ray calls the two key questions of creativity: “Who is my Self and what is my Work?” The task is now one of gestation — synthesizing new information and experiences in the creative cauldron of the self. This requires some period of reflective retreat. That reflection can be designed or proceed naturally, but from it an inner knowing, a felt sense of “rightness” or “fit” begins to develop. We often refer to the deeper essence of this process as “presencing,” when the highest possible future that wants to emerge is beginning to flow into the now. Becoming

the New Economy: Sensing and Actualizing Emerging Futures. Society for Organizational Learning, Cambridge Mass., and Generon Consulting, Beverly, Mass.

clear about what you want to do is an evolving process of refining intent and resolving contradictions until your idea has complete integrity and coherence. Your idea's reception in the world is assured: it's less about your ego or will than about your ability to understand the deep forces shaping your environment and knowing what is needed next. As Will Ackerman, founder of the Windham Hill recording company says of his entrepreneurial venture, when you know what is right, you don't have to choose options or make decisions, what is right is simply there for you to do.

Stage Three: Executing

Every time there were obstacles or I had no idea what would happen, something would unfold or open up.

— Gib Myers, founding partner of The Mayfield Fund

When you understand what needs to be done and are fully committed to doing it, your intention is as focused and concentrated as a laser. There is no hesitancy, no reevaluating, and no questioning. You can accomplish whatever you need to because your actions flow naturally, what Brian Arthur calls “acting in an instant.” Wholly realized in your own mind, your idea has a life of its own. At this stage, when someone asks, “why are you doing this?” you'll answer, “because I can't not do it.” Your commitment, and the alignment of your vision with the larger forces shaping your world become a source of power that attracts the resources you need. Financial backing, a key alliance, executive support, or — most importantly — the right people. Gordon Campbell, CEO of TechFarm, told us that to compete successfully in this economy “you need to have an enormous sensitivity to the time element. That translates into execution, and execution translates into people.” And the right people, said the entrepreneurs we interviewed, are attracted to an idea with vision, integrity, substance, and power. When all those are in place, “It's a rocket ride,” says Campbell.

Leaders' New Work

Leaders who want to incorporate the competence for sensing and seizing in their organizations need to build infrastructures and instill practices to ensure that the work of these stages happens collectively and regularly. Right now, for instance, there are people in every organization who are so totally immersed in a topic that they have a complete “feel” for a situation and can see what's coming next — but have no opportunity to articulate it or move into the next stages. There may be smart, restless people eager for a challenge worth their knowledge, dedication, and zeal who have no way to formulate or find such a project. There are leaders and potential leaders throughout every level of organizations who will flourish in the right environment. Good structures not only enable invention and improvement, they capitalize on every organization's most critical resource: people.

We found that three distinct types of spaces or knowledge creation environments support an organization's ability to anticipate and realize emerging opportunities. Total immersion promotes sensing; retreats are conducive to knowing or presencing; and venture creation laboratories support executing.

Sensing Infrastructures

Stage one requires infrastructures that allow people to transcend the boundaries of their own organization, both physically and mentally, and to experience the world from other people's perspective and experience. Seeing and sensing often take the form of intensive, in-depth field visits of a type we call "learning journeys." Many leadership teams lack true diversity of experience. They are made up of similar kinds of people with similar backgrounds, professional training, and business experience looking at the world through similar lenses. The purpose of stage one is to broaden and deepen that experience base by visiting other organizations, industries, countries, and cultures. Learning journeys are often chosen for their differences (relative to the familiar knowledge) and relevance (for example, high tech industries). Accompanied by new conceptual input (lectures, conversations, reading) and time to talk about their experiences, groups and teams can begin not only to see but to *think* differently. This is critical because, as Brian Arthur puts it, nowadays "the business of business is cognition."

Presencing Infrastructures

Enhancing the capacity for knowing or presencing requires providing opportunities and environments that encourage people to let their "inner knowing" come to the surface. Well-designed off-site retreats can serve this purpose, as well as special rooms set aside for teams and projects, or policies that acknowledge the importance of what might appear to be "downtime." Several of the people we spoke with, including MIT's Peter Senge and Professor Michael Ray of Stanford University, spoke with us at length about the strong link between creativity and deep self-knowledge. There are many tools and techniques that help people develop their capacities for presencing. Some, like meditation, may be unusual in traditional organizations (though they are becoming less so); others, like dialogue or coaching, are more familiar. The purpose of the second stage is to help people tap into the sources of their highest potential, deepest desires, and unique competencies. Wedded with a deeply informed intuition, this produces a uniquely fertile ground. As Abraham Maslow puts it "If you know who you are, where you are going, and what you want, then it is not hard to deal with inane bureaucratic details, trivialities and constraints ... Persons who have achieved their identity are 'causers' rather than 'caused'."

Rapid Experimentation Infrastructures

New ideas are fragile, says Gib Myers, and require initial support to grow into robust ventures. In the third stage, some type of incubator environment must help promote the development of proposals and experiments. Now people are learning by doing, and the most supportive environments will be conducive to creativity, while also providing opportunities for deep customer interaction, building and testing prototypes, and effective technical help. People need to be able to focus on their core purpose without being distracted by administrative chores and details. Rapid prototyping allows for fast-cycle venture and innovation that gets products to market and ideas into action with lightning speed. Creating value before it is commoditized is only part of the task. Fast, focused execution also allows for more experimentation than less. In fact, this is where the twin meanings of “execution” become important. Some percentage of great ventures always fail, and if it becomes clear that an idea is not viable — present and predicted conditions are changing too quickly, some critical piece of information was missing — now is the time to kill it, and begin again.

Root Principles

The essential finding in our research is that the quality of a team’s consciousness determines the quality of its performance. Eleanor Rosch, a noted cognitive scientist in the Department of Psychology at the University of California at Berkley, refers to these most subtle levels of consciousness and experience as “primary knowing” – her term for the phenomenon that occurs at Stage Two described above. When individuals and groups act out of their primary knowing, they tap into larger generative forces that shape structures and behaviors – that shape reality. Three root principles emerged from this research. We have termed these the power of intention, the power of mindfulness, and the power of compassion. Each is an aspect of the other and we believe these must be of supreme concern to any group or individual seeking to develop the capacity to bring forth new realities in line with their highest aspirations.

Intention

The principle of intention goes beyond simply aiming or committing to accomplish something. It encompasses a desire to interact with reality in such a way that possibilities and emerging futures are enacted in the world *through* us. We don’t come up with an idea and force it to happen, we try to become aware of the basic ground or field from which we are operating. We become willing to bring something into being which is greater than us, and which simultaneously defines us. The entrepreneurs we spoke with had a kind of “risk it all” conviction that stemmed from a commitment that served something larger than their personal, selfish desires. When this happens, writes Maslow, we are able to use all the forces in the world to help us achieve this greater purpose.

Mindfulness

Mindfulness, or hyperconcentration, is the ability to experience what Mihaly Csikszentmihalyi refers to as a deep “flow state” and athlete’s call being “in the zone.” Michael Lipson, Chief Psychologist at Columbia University, describes the phenomenon like this:

Certainly organizations benefit from teamwork, from standards of excellence, from dialogue, from quality control. But all these rely fundamentally on a skill we rarely develop directly: the skill of thinking fluidly and with concentration. When I am truly concentrated on any task, it becomes new – and it gives rise to unexpected life. The practice of attentive thinking leads us to participate wakingly, knowingly, in the unfolding generative order. We can co-create at the level of living thought, before thought descends into language and image.

This kind of attention gives us access to a far greater range of information and awareness, and allows us to participate in creating reality before it is concretized in the material world through behaviors, patterns, and objects.

Compassion

The principle of compassion or love is an undiscussable in most business and institutional settings, but is fundamental to the practice of accessing primary knowing. Since primary knowing is based on wholes larger than the self, it is at its essence deeply compassionate. A key dynamic that occurs when a team or group accesses primary knowing is that walls or boundaries between the participants fall away and intense collective feelings sweep through the group. Accordingly, a profound opening of the heart is a natural and essential element of the practice. Without this element, primary knowing simply does not take place.

In our conversations with Professor Rosch, she said that the body is a kind of energy system that can actually serve as a bridge to primary knowing. “The heart,” she said, “may be the best access to the physical system to this kind of wisdom.” The heart plays a major role in our overall consciousness. It is now widely accepted that complex neuro-structures exist not only in the brain but in the heart as well. Actions in the heart precede the actions of both the body and the mind.

The Heartmath Institute has done extensive research on what they call “heart intelligence”. Bruce Cryer of the Heartmath Institute explained to us:

In a sense, the physical heart is the transmitter station for spirit. Many cultures throughout history have considered the heart to be the core of the soul, even the core of intelligence. It's really only been during the last 100 years that the heart has not been viewed to be a source of intelligence. In most other cultures of the world, the heart is still seen as terribly central to what the experience of being human really means.

Organizations that learn to nurture this intelligence, says Rosch, will be “shockingly effective.”

Summary

In summary, we found that leading in the digital economy requires sensing and recognizing emerging patterns and positioning oneself, personally and organizationally, as part of the forces of change that are continually reshaping the world. Those who are successful appear to follow practices and principles which enhance this capacity. When this capability is fully developed, leaders at every level in organizations will find that through their intentions and actions they themselves can actively participate in the unfolding of new business worlds — and the rules by which they are created.