In front of the blank canvas: sensing emerging futures

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In their daily and long-term strategic decision making, leaders in organizations and institutions today confront old and new forms of complexity. We believe that these complexities—which we define as dynamic, social, and emerging—require them to tune in and sense the emerging future. Our work over the past decade has led us to develop an approach to learning, and leading, that incorporates these capacities and supports leaders in addressing these new complexities. In this we found that artistic skills and competencies provide leaders with valuable tools to tap into an emerging future.

First, let us look at how much more complex leadership tasks have become.

Dynamic complexity, which implies a delay between cause and effect in space or time, has always been a key leadership challenge (Senge et al., 1999). Take, for example, global warming—the cause, carbon dioxide emissions, is distant in space and time from some of the effects: decisions and actions that cause global warming occur in places other than where the effects of global warming are most disruptive. Whole-system analysis provides an effective tool for approaching dynamic complexity, but dynamic complexity is often accompanied and made more difficult to address by social complexity, which is the result of diverse values, interests, and worldviews among stakeholders. To continue the example of carbon reduction, what if my suppliers or customers disagree with my judgment on the urgency and long-term strategic relevance of this issue? Among the leadership tools that we use to deal with social complexity are negotiation techniques, dialogue processes, and multi-stakeholder interventions.

What makes today’s challenges different is that they are more and more frequently characterized by a third form of complexity, emerging complexity. Emerging complexity follows disruptive change, which over the past decade (and especially since the economic crisis beginning in 2008), has become a dominant challenge for both organizations and society as a whole. Emerging complexity can usually be recognized by the following three characteristics:

1. The solution to the problem is unknown.
2. The problem statement itself is still unfolding.
3. Who the key stakeholders are is not clear.

The greater the emerging complexity of a situation, the less we can rely on past experience. To address this challenge, leaders need to tap into the emerging new reality. Examples of events that reflect this type of complexity are numerous. Climate change has been discussed for a long time, but within six months of the release of Al Gore’s An Inconvenient Truth in 2006, the national and international discussion reached a tipping point and started to gradually affect consumer behavior, policies, and regulations. Another example is the 2008 crash of the international finance market. The development was predictable, but how many leaders of organizations in the corporate or non-profit sector were prepared to confront the
challenges that emerged? And who needs to be involved to address the root causes of this issue?

We believe that leaders today who are confronted with these and other emerging complexities will be more effective if they develop the skills to tune in to and sense the emerging futures. In our work with leaders from business and non-profit organizations, we have found that both the processes and products of the arts provide training tools that help leaders assess the current challenges in atypical and productive ways.

Two types of learning: learning from the past and learning from an emerging future

Most practices and approaches in the field of organizational learning and change argue that the source of learning is the past (Kolb, 1984).

But what if the future is different from the past? What if one’s past experiences aren’t relevant to the emerging challenges? Is it possible, instead, to learn from the emerging future?

In 1997, this question marked the start of a multi-year project during which we conducted dialogue interviews with 150 eminent thinkers and practitioners in strategy, knowledge, innovation, and leadership around the world (see www.dialogueonleadership.com). We also led numerous reflection workshops with colleagues and co-researchers, and we undertook “action learning” and “action research” projects with companies (including Fujitsu, Daimler, GlaxoSmithKline, HP, McKinsey & Company, Shell Oil, and Federal Express) as well as with grass-roots movements in the United States, Europe, and Asia. Our goal was to understand how it might be possible to learn from the future as it emerges. And we discovered that this learning requires a creative process (Scharmer, 2009; Senge et al., 2004).

Where does our action come from? Standing in front of the blank canvas

There are at least three perspectives from which to look at an artist’s work (Figure 1):

1. We can focus on the thing that results from the creative process – for example, a finished painting.
2. We can focus on the process of painting, what the artist is doing as she paints; and
3. We can observe the artist at the moment before she begins working, as she stands in front of a blank canvas.

In other words, we can look at the final product, at the process, or at that creative moment when the canvas is blank.

The work of leaders is similar. We can look at what leaders do. Many books have been written from that point of view. We can look at how leaders work, the processes they use. That’s the perspective used in most management and leadership research over the past 15 or 20 years. Or we can look at the moment when he or she is about to act. What happens in that moment?

This idea affects our everyday social experiences as well as our work. In our daily lives, we are usually well aware of what we do and what others do; we also have some understanding of how we do things, the processes we and others use when we act. Yet if asked the
question, “What is the source of your action?” most of us would be unable to provide an answer. By “source,” we mean the place where our attention and intention originates.

One of the people who participated in our dialogue interviews was Bill O’Brien, the late CEO of Hanover Insurance. When we asked him about his most important insights after years of leading organizational learning and change projects and facilitating corporate change, one of the things he told us is that “The success of an intervention depends on the interior condition of the intervenor.” O’Brien believed that what counts is not only what leaders do and how they do it, but their “interior condition,” the inner place from which they operate or the source from which their actions originate. Two leaders can initiate the same process, but the outcome will differ depending on where their action originates.

But how can people, individually or collectively, learn from a future that is about to emerge? Our research suggests that individuals, groups, and organizations that successfully connect to an emerging future move through a creative process that allows them to let go of patterns of the past and connect to what is emerging. We call this the U-process (named for the shape of the diagram that outlines it) and it happens in many different settings, in the creative arts as well as in organizations.

Learning from the future as it emerges: the U-process

The U-process leads people through three core movements that allow them to connect to an emerging future. We became aware of these three movements in our interview with W. Brian Arthur, the founding head of the Economics Program at the Santa Fe Institute[1]. Arthur believes that there are different levels of cognition, one that he calls the conscious mind, and another that he describes as a deeper level of knowing. Do we stick with familiar existing frameworks and use them in all circumstances, or do we step back and allow a new form of knowing to emerge? Arthur argues that the process by which one gains access to this deeper level of cognition has three steps:

1. observe, observe, observe;
2. retreat and reflect: allow the inner knowing to emerge; and
3. act in an instant.
To illustrate this process, Arthur refers to the work of Chinese and Japanese landscape painters: “They’ll sit on a ledge with lanterns for a whole week, just looking, and then suddenly they’ll say, ‘Ooohh,’ and paint something very quickly.” These three steps describe the core movements of the U-process but are obviously too unspecific to be helpful. Over years of research, we developed this process in more detail (Scharmer, 2001).

### The first movement: observe, observe, observe: move from downloading to seeing and sensing

The first, and maybe even the most important step in any creative process, is to break free from habitual patterns of the past, to “stop downloading.” Meetings and conversations in organizations are often based on downloading. We collectively reproduce existing patterns of behavior and thought. Sometimes these patterns are helpful. They can provide security as well as routines. But as long as we are downloading, we only see what we know from the past and we are imprisoned in a narrow perception of reality that can limit our ability to innovate or to become aware of emerging disruptive changes.

In contrast, when we break out of this habitual pattern, we enlarge and broaden our ability to see and perceive reality. One of our interviewees, the cognitive scientist Francisco Varela, described “the suspension of habitual patterns” as the first step toward becoming aware: “In Buddhist meditation, you put your butt on the cushion and move one level above your habitual engagement, and see from a more aerial perspective . . . the whole point is that after suspension you have to tolerate that nothing is happening. Suspension is a very funny procedure. Staying with that is the key” (Varela, 2000).

### The Village

For years, we have worked with Arawana Hayashi, a choreographer, performer, and educator who works with improvisation, collaboration, and traditional dance forms (www.presencing.com/community/arawana.shtml). She has developed four “embodiment” practices, exercises for groups and individuals that allow them to physically step out of habitual patterns and move toward sensing the whole (for more detail, see: www.presencing.com/tools/).

Leaders must be able to decide what forms of behavior are most effective for which types of tasks and challenges. This requires them to suspend judgment and see with fresh eyes.

In one of Hayashi’s exercises called “The Village,” each person is asked to create a dance using six ordinary activities: stand, sit, lie down, walk, turn, and greet. The participants start individually working with these movements and then begin to interact as a group. Using only these movements, they work to achieve a mindfulness of the individual body and an awareness of the group. Through the dance, people see and interact with others in unconventional ways (i.e., they are not sitting around a conference table talking). The practice invites group members to take a look at habitual patterns in relationships, to drop their agendas and defenses, and to start the enjoyable challenge of applying awareness and curiosity to whatever situation arises. They shift from operating according to familiar limitations to playful exploration. They are allowed to be contributors and to consider what choosing means in a situation where “doing” is the goal.

“... both the processes and products of the arts provide training tools that help leaders assess the current challenges in atypical and productive ways.”
According to Hayashi, “Besides paying attention to doing the movements clearly and completely, we notice spatial arrangement, direction, focus, rhythm, tempo. These are inherent elements in every group interaction, full of communication. However, because we are so caught up in the content of what is being said or in getting our points across, we sometimes ignore all these elements that contain information about the reality of the situation. They are all vital expressions of the totality of the field that the community is co-creating” (Hayashi, n.d.).

Varela described two more steps in becoming aware. One is redirecting, and the other is letting go. Redirecting means that you redirect your attention from the exterior to the interior. Letting go means accepting your experience.

In our work with teams and organizations, we often use art and the experiences of artists to help understand and facilitate these shifts (outlined along the left side of the U in Figure 2)[2]. Jazz music and learning journeys are two examples.

When an individual or a group moves from downloading toward seeing, and then from seeing toward sensing, the quality of perception begins to change. The core principle of sensing is that perception should happen from the systemic whole. We have found that music offers a good example for this kind of perception. A jazz musician plays her part but at the same time the musician plays it as part of the whole. She is able to simultaneously listen to the whole and to her own contribution. This quality of perception can also happen in teamwork when it enters a creative process.

For centuries, painters, musicians and performers have used learning journeys to pull themselves out of their current perceptions and gain fresh perspective. Famous examples are Gauguin’s trip to Panama and Martinique, a trip that transformed his way of painting, and Goethe’s travel to Italy, which had a huge impact on his writings. Inspired by these experiences, we often use deep-immersion learning journeys to connect people to other people and places that are relevant to the future. Our learning journeys are conducted in small groups, usually of four to five participants. Each group or team travels physically to a new and relevant environment that operates from a perspective that is unfamiliar to the participants. We have found that to be effective, the journey must be physical (not just a

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**Figure 2** Left side of the U-Process

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journey of the mind), challenging (it cannot simply be a relaxing vacation where the goal is to get away from it all), and remote (it cannot be a place you return to repeatedly for the same result). And there needs to be a process in place to prepare the journey as well as to review the experience afterwards.

Becky Buell, from Oxfam GB, summarizes her participation in a learning journey to China during the ELIAS program[3] as follows: “The China learning journey challenged my most closely held assumptions and ways of understanding the world. It really forced me to take a ‘blank slate’ view on the work – what is required, what is possible, what if everything is really up for redefinition? What does it mean to work at the scale required to meet the world’s critical challenges?” These trips do not offer standard presentations or benchmarking sessions, but expose the participants to a world outside their organizational experiences, moving them toward a new way of sensing the environment relevant to the challenge they are confronted with. As other examples, we led the product development team for a global automobile manufacturing company through China for 15 days to gain inspiration and new ideas; and a group of business leaders working on sustainability issues visited local NGOs and community organizers.

The second movement: connecting to your source through presencing

Crossing the threshold at the bottom of the U leads to the moment that we call presencing. Presencing is a blending of “sensing” and “presence”; it describes the moment of connecting with the source of one’s best future possibility and of bringing this possibility into the now. The steps outlined on the left side of the U are preconditions, parts of the process that allow individuals and groups to begin connecting to the sources of future possibilities.

One of our interviewees was Michael Ray, who had developed a Stanford Business School course on creativity. Before the interview, we ran into a lot of people who described this course as life-changing, and Fast Company had characterized Michael Ray as the “most creative man in Silicon Valley” (Ross, 2000)[4]. During the interview, we asked him: “What essential activity actually helps people become more creative?” He told us, “I create learning environments in all my courses that allow people to address and work on the two root questions of creativity: Who is my self? and What is my work?” Ray emphasizes that self is not the small egoistic self, but Self with a capital S, the best possible Self. And by “work” he does not mean a person’s job, but his life’s task, his Work with a capital W.

The Room of Stillness

We have developed an arts-based practice to help individuals and groups explore their Selves and their Work, which we call the Room of Stillness. For example, in one of our corporate programs we bring a group of about 20 participants to a modern art museum known as the Hallen für Neue Kunst in Switzerland, an old textile factory that the artist Urs Raussmüller has turned into a museum[5]. The museum offers an experience with space and form; and the participants learn to practice “stillness,” which allows “inner knowing” to emerge. The conscious emptiness, the lack of “noise,” is a pre-condition for the inner experience of creativity and connecting to the source. The higher the quality of the space where stillness is experienced, the easier it is for the participants to connect to the inner
The third movement: bringing the new into the world

Just as going down the left side of the U requires us to cross the thresholds of suspension, redirecting, and letting go, moving up the right side of the U requires similar steps: crystallizing vision and intention, prototyping, and performing (Figure 3).

Without these steps any creative or innovative process gets stuck in the development phase without ever succeeding in bringing the new into reality.

A core activity on the right side of the U is the development of prototypes that allow people to explore the future through experimentation. We borrow this technique from the design industry. David Kelley, founder and longtime CEO of the design firm IDEO, summarizes his approach to prototyping as “Fail often to succeed sooner” (Kelly, 2001). Prototyping means to present your idea before it is fully developed in order to get early feedback from all stakeholders. Prototyping does not mean developing the final form of an idea, but capturing what is emerging, making it visible, and presenting it to the audience that will work with it or be affected by it. The essential principle is to act quickly rather than to strive for perfection. The aim is to capture the new, emerging reality, and then iterate, iterate, iterate.

Thinking with your hands

Prototyping in the U-process builds on the two movements that allow one to break through habitual patterns of the past: sensing the emerging whole and establishing a connection to the source or authentic self. We use a practice we call Thinking with Your Hands, based on a process developed by the Ashland Institute (www.ashlandinstitute.org/). We invite participants to use clay and other materials to make the emerging future visible and to experiment with it. Sometimes in pairs, sometimes in small groups, participants create a sculpture that captures their interpretation of the current situation and of the emerging future. Surprisingly, we found that after a short initial hesitation, participants dive into the work, and
often get so focused that they lose track of time. Once the sculpture is completed, a set of
questions guides them through a process of reflection that looks at the sculpture from
different directions. This experience helps make visible what the analytical mind cannot
express in words.

“Every human being is an artist”

In our work with innovation and change processes in organizations we have discovered that
the creative process cannot be outsourced. Profound innovation and change are only
sustainable and successful when they connect to the deeper knowledge of the individuals
involved, and so need to be created by the people who will use them and be responsible for
the results they produce.

Each person is not one human being but two – the person we have become through what
happened in the past, and the one we might become in the future. The U-process is a
gateway to the coming-into-being of this other – emerging – part of ourselves, both
individually and collectively; a practical tool that allows individuals and groups to connect to
the emerging future possibility.

The aim of the U-process and the social technology of presencing is to uncover deeper –
more authentic – sources of our Selves. But the U-process also suggests that any social
action can originate from different inner places; every actor can choose between different
places from where their action originate. How we choose to attend to the world is the
leverage we have to determine the outcome of our actions.

When an artist stands in front of a blank canvas she has a choice to reproduce patterns of the
past or to connect to her deeper intention. Every leader, every actor, and every group has the
same choice.

It was twentieth-century German avant-garde artist Joseph Beuys’s fundamental claim that
“every human being is an artist,” meaning that every human being can connect to his or her
source of creativity. We believe that connecting to this source of creativity requires
connecting to our deeper authentic self, and that this connecting to the highest future
possibility, both individually and collectively, is in fact the essence of leadership today.

Notes

1. Arthur is best known for his work on understanding high-tech markets, see, e.g. Arthur (1996).
2. For more detail on these shifts, see Scharmer (2009, pp. 119-61).
3. ELIAS stands for “Emerging Leaders Innovate Across Sectors”. ELIAS is a global cross-sector
   network of high-potential leaders and their institutions working collectively to generate new ideas,
   prototypes, and ventures around sustainability, available at: www.elias-global.com/
4. J. Jaworski was co-interviewer.
5. For information about the museum, please see: www.modern-art.ch/de/Information

References

No. 4, pp. 100-9.


Kelly, T. (2001), The Art of Innovation: Lessons in Creativity from IDEO, America’s Leading Design Firm,

Kolb, D. (1984), Experiential Learning: Experience as the Source of Learning and Development,
Financial Times/Prentice Hall, Upper Saddle River, NJ.


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